

Corporate Social Responsibility Report on Turkish Textile and Apparel Industry

UN Joint Program MDG-F 2067 Harnessing Sustainable
Linkages for SMEs in Turkey's Textile Sector
December 2012



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Abbreviations

ATEKS	Adiyaman Textile Clustering Association
BATs	Best Available Techniques
BCI	Better Cotton Initiative
BOD	Biochemical Oxygen Demand
BREF	Best Available Techniques Reference Document
BSCI	Business Social Compliance Initiative
BSH	Business Social Compliance Initiative
BSR	Business for Social Responsibility
CAYDAG	Environment, Atmosphere, Earth and Marine Research Group
CEDAW	UN Convention on the Elimination of all forms of Discrimination against Women
CFC	Chlorofluorocarbon
CMC	Carboxymethylcellulose
COD	Chemical Oxygen Demand
CRC	UN Convention of the Rights of Children
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
EMAS	Environmental Management and Auditing Scheme
EMS	Environmental Management Systems
ETI	Ethical Trading Initiative
EU	European Union
EVRENA	Global Researcher Programme
FLA	Fair Labour Association
FWF	Fair Wear Foundation
GDP	Gross Domestic Product
GDRE	General Directorate for Renewable Energy
GEF	Global Environment Facility
GRI	Global Reporting Initiative
HCFC	Hydrochlorofluorocarbon
HSE	Health, Safety and Environment
IBC	Intermediate Bulk Containers
IDA	İzmir Development Agency
ILO	International Labour Organization
IPPC	Integrated Pollution Prevention and Control
ISO	International Organization for Standardization
İTKİB	Istanbul Textile and Apparel Exporters' Associations
JP	Joint Programme
KAMAG	Public Institutions Research Group
KOSGEB	Small and Medium Enterprises Development Organization
MDGs	Millennium Development Goals

MDG-F	Millennium Development Goals Achievement Fund
METU	Middle East Technical University
MOE	Ministry of Economy
MOEU	Ministry of Environment and Urbanization
MOSIT	Ministry of Science, Industry and Technology
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-Operation and Development
OHSAS 18001	Occupational Health and Safety Standard
OSH	Occupational Health and Safety
PBDE	Polybrominated Diphenyl Ether
PCP	Polychlorinated Phenols
PVA	Polyvinylalcohol
R&D	Research and Development
REACH	Directive on Registration, Evaluation, Authorization and Restriction of Chemicals
REAP	Responsible Entrepreneurs Achievement Programme
SA 8000	Social Accountability Standard
SAI	Social Accountability International
SMEs	Small and Medium Enterprises
TBAG	The Basic Sciences Research Group
TGSD	Turkish Clothing Manufacturers Association
TOBB	The Union of Chambers and Commodity Exchanges of Turkey
TSI	Turkish Standards Institute
TSS	Total Suspended Solids
TTGV	Technology Development Foundation of Turkey
TTTSD	Turkish Textile Dyeing and Finishing Industrialists' Association
TUBITAK	The Scientific and Technological Research Council of Turkey
TURKAK	Turkish Accreditation Agency
UN	United Nations
UNDP	United Nations Development Programme
UNGC	UN Global Compact
UNIDO	United Nations Industrial Development Organization
USA	United States of America
USD	United States Dollar
VAT	Value Added Tax
VOC	Volatile Organic Compound
VOCs	Volatile Organic Compounds
WEEE	Regulation on Waste Electrical and Electronic Equipments
WRAP	Worldwide Responsible Accredited Production



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Executive Summary

Millennium Development Goals Achievement Fund (MDG-F) Joint Programme (JP) on “Harnessing Sustainable Linkages for SMEs in Turkey’s Textile Sector” is initiated and implemented by UN Agencies UNDP, UNIDO, ILO and İTKİB. The programme aims to increase the international competitiveness of SMEs, support them to integrate national and global value chains and create decent work environment for both women and men in textile and apparel industry, particularly in vulnerable regions of Turkey. The project targets to upgrade the productivity and market access of companies as well as benefiting local disadvantaged communities in poor areas, including Central and South-eastern Anatolia. In this context the pilot provinces have been selected from the east and south east regions; Gaziantep, Malatya, Kahramanmaraş and Adiyaman.

Within the framework of the MDG programme, Assessment of CSR in Turkish Textile Sector Study Report, aims to assess the current perception and status of sustainable development, issues pertaining to MDG, social and environmental conduct in the four pilot provinces Gaziantep, Malatya, Kahramanmaraş and Adiyaman. In this context Assessment of CSR in the Textile Sector Study is divided into three core areas regarding Sustainable Development (under the coordination of the İTKİB) and CSR regarding Environmental conduct (with the coordination of the UNIDO) and CSR regarding Social Conduct and Labour Standards (under the coordination of the ILO).

This study identifies the challenges and the opportunities regarding supply chain sustainability, environmental and labour standards and provides an analysis of the findings including recommendations on follow-up action to improve the future uptake of these standard practices amongst textile and apparel SMEs. With this aim, each research partner in JP has designed its own questionnaire and posed its questions to 100 SMEs in four consecutive workshops in four pilot regions in May 2011. Some of the surveys were sent and received through follow-up mail and faxes and additionally on-site visits to companies were conducted. Since most of environmental concerns emerge in wet processing plants, UNIDO has further visited 21 wet processing plants in the four pilot regions and was able to include such companies in was research. Additionally, the research partners interviewed another set of actors, i.e. large corporations, public and private institutions, unions, business associations both in and outside the region to get the perspectives of various stakeholders. Finally, “business models” are developed through interviews with macro scale manufacturing companies and analyzed so as to demonstrate the positive-sum (win-win) impact of CSR.

Though each partner institution has defined and focused on specific aspects of the CSR in this study, identifying various impediments on the road to achieving UN Global Compact and formulating policies and strategies to achieve the stated principles which involves a wide range of issues ranging from human rights, to labour and environmental standards, constitutes the fundamental aim of this study. What are the current CSR practices in the pilot region? How do these practices diffuse? What exactly are the role of the suppliers and customers and the bigger companies? How CSR and sustainability affects competitiveness? What are the concerns and the role of various stakeholders- NGOs, chambers, associations and unions- in establishing and entrenching CSR principles on the ground? These questions are tried to be responded through this report.

Global standards in the Textile and Apparel Industry: UN Global Compact, ILO and UNIDO Standards

The broadest framework that is used in this study is the 10 UN Global Compact principles. This is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. They include:

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Though voluntary, UN Global Compact has become the world's largest Corporate Responsibility initiative in the world. In this assessment report, three fundamental dimensions of Corporate Social Responsibility, (CSR) sustainable development, environment, and labour standards (principles 3 through 9 of UN Global Compact) will be used as the broad universal guidelines. Corporate Social Responsibility, (CSR) is a worldwide concept on how companies manage their business processes to produce overall positive impact on society and environment. Within this framework, this assessment report provides an expanded list of guidelines, which are systematically used and specifically applied to the Turkish textile and apparel industry. Chapter 1 (prepared by İTKİB) defines CSR within the textile and apparel industry through the concept of sustainability of supply chains and explores how the SMEs in these four pilot cities, Gaziantep, Malatya, Kahramanmaraş and Adıyaman understands and implements these principles. The

sustainable supply chains framework is based on the idea that since environmental, social and economic impact exist in every stage of supply chain, (in the case of textile and apparel industry, this involves, raw materials, manufacturing processes, packaging, transportation, storage, retail and consumer use/end), companies have plenty of opportunities to promote human rights, improve labour conditions, protect the environment and support ethical business conduct at different stages of the supply chain. As elaborated in Chapter 2, there is a wide range of global standards that assist companies to address and implement different dimensions of CSR. These include, but are not limited to ISO 14000 series for environmental management systems and related aspects, OHSAS 18001 Occupational Health and Safety Standard, SA 8000 (Social Accountability Standard), Worldwide Responsible Apparel Production (WRAP), Business Social Compliance Initiative, (BSCI), and Fair Labour Association (FLA) standards. Beyond these standards, are also guidelines such as OECD, United Nations Global Compact, World Business Council on Sustainable Development and Global reporting Initiative (GRI). Some major brand name companies have also established their own corporate code of conduct on social responsibility.

As will be elaborated on Chapter 3, environment is also one of the important pillars of Corporate Social Responsibility approach. Environmental management is an integral part of any CSR programme in a company. The rationale behind is the fact that “a commitment to corporate social responsibility is always linked to commitment to pollution prevention, as every company causes certain environmental impacts that compromise the society”. Corporate environmental management is about finding a balance between economic and environmental protection issues. In this regard, economic issues, such as productivity, lower operational costs, or increased profits are to be tackled together with the pollution prevention and resource efficiency concepts.

This approach brings about the concept of cleaner production that is a preventive strategy to reduce environmental pollution and simultaneously reduce the consumption of resources. Its core focus is on processes and on reducing all forms of losses. Cleaner production approach aims to prevent/ minimize the pollution before arising, contrary to the common “pollution control” approach. Pollution control approaches accept the production and design phases as unchangeable factors; therefore pollution is seen as an inevitable result of these phases and solutions are sought after pollution occurs. Consequently, these approaches require additional costs for the institutions by focusing on the waste treatment facilities. On the other hand, cleaner production approaches accept the pollution as a result of deficiencies and inefficiencies during design, raw material utilization and production processes; and aim to find solution by providing necessary developments during these processes. Cleaner production has a close relation with sustainability besides development of new product, process, system and services.

Here, the principles 7, 8 and 9 of UN Global Compact are good starting points as well. The environment aspect of CSR is based on cleaner production and Environment Management Systems (EMS) satisfies the three of the ten principles to be met by the businesses in the area of environment:

- Principle 7: support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

The integrated EMS and cleaner production approach is consistent with the 7th Goal of the MDGs as well which is defined as “ensuring environmental sustainability”, particularly the objective of integrating the principles of sustainable development into country policies and programs and reversing the loss of environmental resources.

Environmental management is the management of an organization’s interaction with and its impacts on the environment. EMS on the other hand, is a set of processes and practices that enable the organization to reduce its environmental impacts and increase its operating efficiency in a systematic and cost-effective manner. Meanwhile

cleaner production is defined as the continuous application of an integrated preventive environmental strategy to processes and products to reduce risks to humans and the environment. Cleaner production approach consists of three main axes: prevention and minimization, reuse and recycling, and energy recovery.

As Table 1 indicates, environmental issues, an integral part of CSR concept, associated with the textile and apparel industry starts with the use of pesticides during the cultivation of natural fibres or the emissions during the production of synthetic fibres. From that moment on, a number of processes are applied, using thousands of different chemicals, to process the fibres and to reach the final stage of textile and apparel end product. Environmental problems associated with the textile and apparel industry are typically those associated with water pollution caused by the discharge of untreated effluents. Liquid wastes arising from washing operations contain a substantial organic and suspended pollution load, such as fibres and grease. Effluents are generally hot, alkaline, and strong smelling and coloured by chemicals used in dyeing processes. Some of the chemicals discharged are toxic and can lower the dissolved oxygen of receiving waters, threaten aquatic life and damage general water quality downstream. Other environmental issues now considered equally important and relevant to the textile and apparel industry include emissions, notably Volatile Organic Compounds (VOCs) and excessive noise or odour, as well as workspace safety.

Table 1: Environment Related Issues in Textile and Apparel Industry [1]

Fibre Production	<p>Cotton:</p> <ul style="list-style-type: none"> • Degradation nature & landscape; • Use of pesticides <p>Polyester:</p> <ul style="list-style-type: none"> • Exhaustion non-renewable resources (oil) • Air pollution during refinery <p>Viscose:</p> <ul style="list-style-type: none"> • Monoculture trees; • Polluted wastewater
Textile Production	Energy use
Textile Finishing	Use of chemicals and dyes Wastewater
Apparel Production	<p>Dyes and chemicals end up in the water through washing</p> <p>Dry-cleaning uses chemicals and shortens the lifespan</p>
Clothing Use	Release of chemicals at dumping of garbage or incineration

As will be elaborated in Chapters 4 and 5, United Nations and ILO Conventions have provided the basic standards for labour-related issues which constitute yet another major part of CSR. Universal Declaration on Human Rights, UN Convention of the Rights of Children (CRC), UN Convention on the elimination of all forms of discrimination against Women (CEDAW) and ILO conventions have provided the primary documents for working conditions and labour standards. Out of some 200 documents that ILO has produced on working conditions, four basic labour rights are always emphasized. These are a) Freedom of association and right to collective bargaining b) Ban on forced labour c) Ban on child labour, and d) ban on all forms of discrimination in the workplace and professions. Although it is the responsibility of the governments to guarantee the rights of workers and improve working conditions based on national labour laws and ILO international labour standards, private actors have also become an active partner through private auditing systems and programs. Various social auditing, verification, certification systems and initiatives have been developed to improve the labour standards in Textile and Apparel Industry such as SA 8000 (Social Accountability Standard), Fair Labour Association (FLA), Fair Wear Foundation (FWF), Ethical Trading Initiative (ETI), Business Social Compliance Initiative (BSCI), the Clean Clothes Campaign. In many countries, labour unions, NGOs

and consumer oriented campaigns draw attention of governments as well as international buyers to violations of labour rights and poor working conditions, particularly in supply chain in Textile and Apparel Industry Chains. [2]

Once again the UN Global Compact, along with the OECD Guidelines for Multinational Enterprises and ISO 26000 Guidance standard on CSR, provide the corporate guidance for better compliance with labour standards. In the renewed European Union strategy 2011-2014 for CSR, for instance, the European Commission motivates the European Enterprises to make a commitment in one of the international initiatives mentioned above by the year 2014. It also asks from European-based multinational enterprises to respect the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, 1977[3]. This progress shows that CSR will be much more on the agenda of the companies regarding the activities in their supply chain and will become a competitive advantage for the companies that improve the labour standards in their company.

ILO has defined CSR as “a way in which enterprises give consideration to the impact of their operations on society and affirm their principles and values both in their own internal methods and processes and in their interaction with other actors. CSR is a voluntary, enterprise-driven initiative and refers to activities that are considered to exceed compliance with the law” [4]. ILO is particularly interested with productive employment, labour standards and decent work section of CSR where it strongly believes that it will contribute to sustainable enterprises and sustainable development in the end. [5] Some of the common challenges and labour standard issues that may rise during the production chain are explained in the Table 2. Despite these challenges, ILO has systematically underscored that addressing these problems does not only help increase the sustainability of supplier chains, but can improve the society in which the companies operate.

The large companies, that are now a part of the value chain, began to write social conducts (code of ethics) to improve the situation of the labour standards, to which suppliers need to comply, in their supply chain. The most valued codes today are the ones that involve ILO’s declaration on fundamental principles and rights at work which is about forced labour, freedom of association, child labour, discrimination identified in eight conventions shown below [6]:

Table 2: Labour Related Issues in Textile and Apparel industry [1]

Fibre Production	<ul style="list-style-type: none"> -Working conditions -Wages -Residues of chemicals 	
Textile Production	<ul style="list-style-type: none"> -Working conditions -Dust and noise 	
Textile Finishing	<ul style="list-style-type: none"> -Working conditions -Residues of chemicals 	
Apparel Production	<ul style="list-style-type: none"> -Working Conditions - No compliance of labour laws - Wages lower than minimum 	<ul style="list-style-type: none"> - Union - Working hours - Child labour
Clothing Use	<ul style="list-style-type: none"> Health risks: - Chemical entering the skin 	

Source: Yperen, M., 2006

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No.87)
- Right to Organise and Collective Bargaining Convention, 1949 (No.98)
- Forced Labour Convention, 1930 (No.29)
- Abolition of Forced Labour Convention, 1957 (No.105)
- Minimum Age Convention, 1973 (No.138)
- Worst Forms of Child Labour Convention, 1999 (No.182)
- Equal Remuneration Convention, 1951 (No.100)
- Discrimination (Employment and Occupation) Convention, 1958 (No.111)

1. Major Findings Regarding Supply Chain Sustainability: Turkey and the Pilot Region

Supply Chain Sustainability

Effective implementation of supply chain sustainability within a company needs to follow certain steps and requires high level of integration with company values. Company either at a size of SME or macro scale aiming at increasing market share globally, should develop internal and external linkages with national and international stakeholders. When SMEs in Turkey are reviewed, companies have strong company values but there is still need for raising awareness both on supply chain management and sustainability integration. Currently Corporate Social Responsibility, specifically sustainability more likely understood and implemented as social events involving company employees in SMEs.

Supply chain management requires an approach of reviewing internal factors and reformulating the company value chain and examining external factors outside the company. SMEs which mostly constitute and operate as a link within the entire supply chain need training and collaborative actions with macro scale manufacturers which already formed their own and international code of conduct.

SMEs which are the suppliers for macro scale companies or the ones manufacturing for internal markets have limited information on peer companies and their competitors in Turkey. Apart from companies which work with macro scale companies there is limited information flow among companies regarding sustainability and code of conduct in textile and apparel industry.

SMEs do not have their own code of conduct. They obey national rules and regulations or apply the customers' (international buyers or macro scale national manufacturers) code of conduct to ensure certain standards in manufacturing. In terms of corporate social responsibility majority of SMEs follows national rules and regulations.

To promote supply chain sustainability in SMEs dissemination of buyer's expectations plays vital role in textile and apparel industry. It is not always applicable for big companies or international buyers to provide direct information to SMEs which they do not work with. There is need for an information platform where SMEs can learn expectations, code of conduct and steps for supply chain management.

Supply chain sustainability needs integrated management approach where internal functions (company value chain) re-organised in parallel to changes and needs of national or global supply chains. In big manufacturing companies there are supply chain managers working to align company operations and external factors in the chain. In Turkey there is need to increase awareness on "supply chain management" among managers of the companies.

It is seen that in Turkey SMEs as suppliers of big manufacturers work with one or two customers and invest to adopt their production processes in line with the customer expectations which brings cost pressure. There is need to support SMEs to adopt and sustain their structural re-organisations towards sustainable supply chains.

Assessment of Business Scope

As it is the case in many other countries, also in Turkey, big manufacturers focus on their critical suppliers which they directly work with at the first or second link of the supply chain. However, environmental and social requirements and reducing risks over entire supply chain gain much more importance for the international buyers and therefore for the SMEs operating as sub-tier suppliers.

There is need for capacity and infrastructure development through a collaborative approach. An individual SME may not be able to adopt production processes for a better supply chain management however clusters and cluster approach can provide substantial power for SMEs to shift their competitive position regionally, nationally and in international markets.

Definition and Implementation

In order to increase competitiveness in textile and apparel industry there is need for developing a shared vision and act towards achieving it. Interviews showed that there is limited level of organised efforts from big manufacturing companies towards their suppliers to train and improve their capacity. Training programmes and supplier development programmes are not common practice in textile and apparel industry. There is need for more collaborative actions which should be led by the big manufacturers towards SMEs, need for programmes to engage suppliers and create a shared mind-set about sustainability issues.

Industry collaboration is another very important factor for supply chain sustainability. The study shows that level of collaboration between sectorial organisations, local governments and business organisations should be increased.

Evaluation and Communication

Setting performance goals and according to these performance goals self-assessment of companies and visibility have vital importance for entering new markets. Regardless of the scale of the company, evaluation and performance assessment is substantially related with business management and business models. Apart from self-assessment, performance evaluation through internationally accepted tools and standards and implementations certified by international organizations help companies to enter international markets. Most of the SMEs in Turkey especially the micro scale ones are operating as the sub-tier suppliers without a solid monitoring body ensuring the standards. While assessing the strategic suppliers, the big manufacturers do not set mechanisms to assess the sub-tier suppliers, won't contribute much to avoid negative social and environmental implications. Likewise, among SMEs there is lack of awareness on performance setting and on performance monitoring tools (software) and platforms. There is also lack of awareness and information on international policies, standards and their importance for increasing competitiveness.

Big companies are working at global standards and promoting sustainability as a business model. Big companies by setting their expectations and rules, direct their suppliers towards implementing sustainability applications. However in Turkey, international buyers, big manufacturing companies or integrated manufacturers prefer to work with big suppliers already meeting their expectations instead of working with SMEs. It is therefore essential to increase CSR capacity of SMEs in Turkey, at first to integrate them to national supply chains. There is need for setting common set of supply chain sustainability framework for Turkish Textile and apparel sector where manufacturing companies including SMEs can be so easily integrated.

Chapter 3 of this assessment report addresses the environment related issues in the pilot region. Here the main issues are energy consumption, water and water management and solid waste management. The main argument in this section is that while the needs, problems and opportunities in textile and apparel manufacturing industry towards environmental management issues, particularly resource efficiency and cleaner production are becoming

more apparent and significant, environmental management perspective of the customers of textile and apparel manufacturing industry (large enterprises) has recently started to focus on the supply management issues putting stress on resource efficiency and cleaner production approaches.

Meanwhile, there is indeed a considerable movement and institutional intention in public and other relevant institutions in relation to the development of cleaner production applications.

2. Major Findings Regarding Environmental standards: Turkey and the pilot region

Micro Scale Analysis: Textile and Apparel Producer Companies (SME)

- General environmental policies and management approaches are not established in most of the companies in the target region
- They are relatively good at complying with national regulations but they are not taking “proactive” measures to adapt to potential regulations
- In terms of general waste management (solid waste disposal, wastewater treatment, etc.) even wet processing companies are rather good. The main environmental problem is related with resource efficiency and cleaner production.
- Customer demands and market pressures force companies to produce ecological products; companies’ focus is on environmentally-friendly products rather than environmentally friendly production processes (resource efficient and cleaner production).

Meso Scale Analysis: Markets and Customer Relations

- Environmental management is seen by large enterprises (multinational corporations and Tier-1 companies) as a driver for competitiveness of their suppliers, the textile and apparel producers.
- The compliance audits are conducted accordingly only for the main producers and their important subcontractors; not the whole supply chain.
- Multinational corporations started shifting their focus to an approach where resource efficient and cleaner production prevails.

Macro Scale Analysis: Institutional Set-up and Environmental Governance

- The existing situation of resource efficiency and cleaner production in Turkey is not at a desired level in terms of policy, capacity and implementation.
- Particularly with the driving force of EU harmonization requirements, contemporary aspects of environmental management, namely cleaner production related approaches, have started to be included in the national regulations. However, framework legislation on cleaner production or a similar concept such as sustainable consumption and production is still lacking.
- A very important development is the recent adoption (December 2011) of the “Communiqué of Integrated Pollution Prevention and Control in Textile Sector” which directly refers to pollution prevention and cleaner production.
- In terms of environmental issues, textile and apparel industry has been regarded as “one of the priority sectors in Turkey”, in various studies and evaluations.
- Looking at the level of benefitting from existing financial supports by the textile and apparel companies, it can be seen that they are not at desired level particularly for R&D and export supports. For SMEs and the target region particularly, this gap becomes more obvious. Textile and apparel companies are better at benefitting from investment and implementation (e.g. energy efficiency) related supports.
- The relatively low R&D activity in textile and apparel industry should be taken into consideration as a significant issue, in terms of the need for formulating related funding schemes.
- Since the institutional capacities (even in the environmental consultancy firms) on cleaner production ser-

VICES are not developed, a critical mass cannot be reached to create a market of tailored cleaner production services to textile and apparel companies.

It should be pointed out that the Joint Programme, particularly its environmental aspect, is being implemented in a very critical time and at very favourable conditions. This brings about many opportunities but at the same time possibly some challenges to be tackled simultaneously. While the needs, problems and opportunities in textile and apparel manufacturing industry towards environmental management issues, particularly resource efficiency and cleaner production are becoming more apparent and significant for their customers (large enterprises). Meanwhile, there is a considerable movement and institutional intention in public and other relevant institutions in relation to the development of cleaner production applications. This set of conditions is believed to address a very important opportunity.

3. Major Findings Regarding Labour Standards: Turkey and the Pilot Region

Unregistered Employment

Approximately 60 percent of the industry active labour force in Turkey is considered to work in the unregistered economy,

- Causes of unregistered employment are avoiding taxes, use of illegal foreign workers and child workers by SMEs owners; homemade and atelier type of production; green card usage by employees.
- The positive scenario created via answers given by SMEs regarding unregistered employment are estimated misleading, because of fear of SMEs owners to be evaluated as unethical and unlawful. On the other hand, labour unions declared that unregistered employment has reduced.

Overtime work in respect of time and wage

- In general, employees are working more than 11 hours a day in little ateliers; 130 hours overtime work in a month is common in busy seasons; employees do not get extra payment for the overtime work due to the system of "payment for each unit of production".
- Despite the positive results of the descriptive statistics, according to the results of surveys done with labour unions in the region, working hours are about 12 hours, which do not comply with the legal 8 hours.

Wage Policy

- The workers of the industry are paid considerably less than workers of the other industries in the country.
- Although, labour cost of the industry in the country grew by 48 percent from 2005 to 2010, it is still not enough to hire necessary qualified workers.
- 54 percent of the respondents did not give answer to question of lowest wage in the firm. This is a quite significant result, which will make us to think the possibility of employment of workers under the minimum wage level.
- 10 percent of respondents are not able to pay on time to the employees, because of the problems of cash flow and corporate finance weakness.

Health & Safety Conditions

- The Industry is in the 4th row after metal, construction, and coal industries in terms of industrial injury.
- Although the survey results indicates that 73.1 percent of the SMEs guarantee the health and safety condition of workers, according to labour unions workers need trainings on health and safety.

Labour Unions and Collective Bargaining

- There is a lack of sufficient labour unions serving for labour of SMEs. 61 percent of the surveyed SMEs shared that there is not any trade union organized in the factory.
- 77 percent of the answered surveys indicate that collective bargaining never conducted.

- Negative perspectives to labour unions is stressed by SMEs and Labour Unions separately because of;
 - Employees refrain from being a union member since they are afraid to lose their jobs.
 - The lack of belief among SME owners on the necessity of a trade union.
 - Communication gap between labour unions and SME owners.
 - Perception of labour unions as a threat to production.

Recruiting qualified workers and productivity

- Poor labour standards and low wages level prevent the industry to attract qualified labour and hinders shifting of the low price strategy of the industry to a high quality
- According to the survey, high absenteeism, high turnover and absence of qualified labour and professionals are problematic areas of the SMEs.
- Most of female workers in the region prefer to work when are young until they get married, most of female workers in the region think this kind of job as a temporary job which they can get during their youth
- More than 90 percent of the respondents to the survey state that the employment of skilled workers is a priority but the employment market does not provide the required skilled workers.
- Local projects by İŞ-KUR (Employment Agency of Turkey) does not match with the needs of manufacturer and does not support labour needs of SMEs,
- Labourers working for long years at minimum age without any incentives and promotions means that labourers remain as unqualified workers for years without any promotions.

Additionally some other points from the survey with SMEs in the region and the interviews with the stakeholders are follows;

- More than 85 percent of the surveyed SMEs do not follow the legal requirement for the workers who are dismissed.
- 30 percent of respondents still does not follow full requirement of legal contract during recruitment process, which limit contractual obligations of a SME for labour.
- Suggestion box, section chief and labour representatives are 3 common methodologies that SMEs use to enhance communication and labour representation.
- Most of the companies do not prefer to employ the forced labour in the companies, there are some cases of debt bondage and family pressure for girls/women to work and give salaries to the families.

Major findings: female employment. Turkey and the region

The rights of disadvantaged groups; such as women and children

- It is estimated that more than half of the unregistered employment in the industry belongs to females,
- Female workers are considered as cheap labour because of social and traditional reasons. Their first role is in their house and their second role is to contribute to the family budget.
- Most of the female workers do not know their rights about maternity and nursing leave, nursery and unionization.
- The cases in Kahramanmaraş and Adıyaman show that SMEs prefer female workers to male. They find female labour more efficient, skilled for textile and apparel work and disciplined compared to men labour.
- According to labour unions, child labours are also one of the problems of the industry regarding labour standards. Similarly, in the survey study 35 percent of the respondents did not give an answer to the question of the lowest age of the workers; additionally, the average age level is about 19 for each gender. It gives an impression that there may be some employers working under the minimum age level.
- Women's share of employment in the textile and apparel industry is higher than the average rate of female employment in the region. This is an indication of the fact that women are inclined to work more in the industry.

- Most of these women are young and single.
- Their employment is short-term and perceived as a period until they are married.
- Informalisation is a persistent character of the production and the violations of employment regulations are often experienced in the labour processes, such as unpaid overtime work, longer working hours, unpaid salaries etc.
- Hard working conditions of the industry keep women from taking up employment in the industry or keep their employment as a long-term engagement.
- Labour shortages and high labour turnover rates are a result of informal nature of working relations and unbearable working conditions.
- Local discourses on women's appropriate behaviour and place in the society are an obstacle for women in accessing to paid work.
- The industry fails to attract and retain married women's labour as there is no understanding of their needs of childcare and lacks the effective ways of communication with local and governmental authorities to develop suitable childcare facilities in factories or in local communities.
- Social conservatism and stigmatisation of women at the workplace is also a serious challenge.

4. Major Recommendations at Micro, Meso and Macro Levels

This report suggests that a multi-level and integrated approach to CSR in Turkey that simultaneously looks at supply chain sustainability, environmental concerns and labour standards is absolutely crucial not only for the textile and apparel industry but also for the capacity of the country to achieve MDGs. Such an approach can bring the whole range of actors (SMES, major corporations, the government, NGOs, unions, and all the other stake holders) together around the common CSR goals. This not only will improve labour and environmental standards in Turkey and in relatively underdeveloped regions in the country, but also help contribute to the long-term sustainability, profitability and competitiveness of the textile and apparel industry itself. With such a multi-dimensional approach, the report has grouped its recommendations at three different levels; though a significant amount of inter-level partnerships are absolutely necessary for achieving and implementing CSR in the industry. These levels are:

Micro-level: Assistance on the micro-level involves direct support to a group of companies belonging to the same sector, region, cluster, supply chain, etc.

Meso level: Support on this level focuses on business support and advisory institutions (public or private) that aim at expanding their service portfolio and strengthening their institutional capacity.

Macro-level: This level involves CSR related policy work with a view to support government institutions in determining what public policies best support a country's private sector in its efforts to apply socially and environmentally responsible business practices.

Regarding the supply chain sustainability, major policy recommendations at the micro-level emphasize the importance of mutual cooperation between the bigger corporations and the SMES along the supplier chain. Evaluating business risks, setting clear guidelines and company vision for CSR, aiming to climb higher in the value chain within the industry are crucial for establishing sustainable supply chain and essential for long-term profitability. Developing a company code of conduct, enhancing partnerships and collaboration with all the stakeholders, assessing the competitive external environment all constitute important parts of supply chain sustainability. The most important recommendation here is the importance of launching an awareness campaign which underscores how establishing CSR standards and practices at the company level can ensure the long term sustainability and the profitability of the company as well as the textile and apparel sector. Business institutions, civil society groups and related NGOs at the meso- level can all play a crucial part in dissemination of information about international CSR standards like

Global Compact as well as good practices and business models that can set good examples for SMEs and other corporations. At the macro-level, establishing a national code of conduct unified CSR standards can also help towards implementation of the CSR and establishment of sustainable supply chains within the industry. **Integrating CSR as a part of the National Textile and Apparel Industry Development Strategy is absolutely crucial and is the primary recommendation of this report.** Long-term strategies and a national vision on how to increase incentives and support mechanisms to enhance and encourage CSR in the industry would also be necessary. Establishing “Regions of Excellence in Textile and Apparel Industry” with various mechanisms to encourage network and cluster development, innovations, incentives for technology and R&D for moving up on the value chain, and establishing a coordinated policy framework on the broader nexus on education, labour and social policies can all constitute fundamental pillars of this macro-vision.

Regarding the environmental aspects of CSR, the major recommendations that often require multiple levels of engagement have been grouped under four headings

- a) Policy recommendations and strategy reforms
- b) Financial instruments and incentives
- c) Information networks and partnerships
- d) Capacity building and raising awareness

Major policy recommendation and strategy, which require both the involvement of corporations and the government, are the establishment of a policy and a roadmap for the dissemination of cleaner production (or sustainable consumption and production, including eco-labelling, eco-design, life cycle assessment, etc.). This is necessary both at the country as well as at the sectorial level. Establishing clear guidelines for cleaner production, establishing a national legislative framework, improving the implementation and dissemination of the existing “Communiqué of Integrated Pollution Prevention and Control in Textile Sector” are the primary strategies.

In terms of financial mechanisms, linking various regulatory mechanisms in the textile and apparel industry with financial incentives and packages can constitute a significant step towards cleaner production. Large companies should also shift from project-based clean production towards an integrated understanding of CSR where environmental sustainability is a crucial component. Various targeted financial incentives, funding programs and instruments should also be envisioned so as to encourage cleaner production particularly in the pilot regions.

Regarding establishing networks and building partnerships, the major recommendation is the establishment of databases and an information exchange platforms in relation to the applicability and benchmarking of specific cleaner production tools, case studies, and “business models”. Forming effective dissemination mechanisms, network clusters, sharing of information while encouraging sustainable dialogue and strengthening auditing mechanisms between larger corporations and SMEs all constitute major strategies which can ensure better environmental standards. Building industry-university partnerships, sharing and cooperation between public and private institutions is also highly encouraged.

Finally, regarding capacity building and raising awareness, extensive and specific training programs are envisioned by all the stakeholders, based on UNIDO’s REAP strategy, on efficient resource use, environmental management and cleaner production. Launching public and private awareness programs through dissemination of good business models and establishing a specific capacity building effort on Best Available Techniques (BATs) and the related Reference Document (BREF) including the information sharing and technical infrastructure development for textile and apparel industry is likely to be effective.

The third and the final dimension covered in analyzing CSR are the labour standards. Here the recommendations mostly zoom on macro level, on the importance of role of the government and stakeholders to monitor and im-

plement the existing labour standards. Though existing labour laws are quite advanced in Turkey, the problems predominantly emerge in implementation. As was the case in supply chain sustainability, and good environmental management, launching a significant training and awareness campaigns on the importance of maintaining at least minimum labour standards and practices is seen as crucial for establishing decent work standards and improvement in working conditions and wages. Strengthening awareness as a need for unions, building capacity for better working conditions, and adopting gender equal policies are seen as crucial for improving labour aspects of CSR. More importantly, a paradigm shift, which emphasizes the fact that maintaining good labour standards is a win-win strategy for the companies, would be absolutely necessary. Addressing problems of unregistered employment particularly in the pilot regions and specifically targeting the textile and apparel industry where such informality is common, improving working hours and working conditions and adopting more women-friendly policies and strengthening the powers of the unions and encouraging collective bargaining can also help Turkey meet international labour standards and develop an integrated CSR strategy.

Finally, improving working conditions and adopting decent work standards in the industry can also help female employment in the region and help empower women, which constitute one of the fundamental MDGs for Turkey. Improving women's working conditions can help increase women's visibility and labour participation in the industry and also help improve the quality of human resources and develop a skilled labour force which is crucial for competitive, sustainable industry. Eliminating cultural and norm-based barriers towards female labour participation would also be important in this regard.

In short, the fundamental recommendation of this report is to create an integrated CSR vision for Turkey's textile and apparel industry which not only addresses the industry's problems and challenges in terms of sustainable supply chains, environmental management and labour standards but also helps developing extensive partnerships among the various stakeholders and relevant actors, i.e. the SMEs, small and big corporations, the business and labour associations, NGOs and other civil society groups as well as the government. Coordinated efforts of these stakeholders along with extensive training and networking efforts, which can help disseminate the message of how CSR constitutes the basis of long term corporate profitability and competitiveness in the industry, are also essential. Only then, can Turkey not only move upwards in the value chain in the textile and apparel industry but also take a significant step towards achieving its targets in terms of Millennium Development Goals (MDGs).



Chapter 1 Introduction

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This assessment report is part of the Millennium Development Goals Achievement Fund (MDG-F) United Nations Joint Programme (JP) on “Harnessing Sustainable Linkages for SMEs in Turkey’s Textile Sector” which has been developed with the aim to increase the global competitiveness of SMEs in Turkey’s textile sector in developing regions, help them integrate into national and global value chains, and create more and better employment opportunities for women and men. The overall objective of the JP is to enable the local business community to reach a state of “responsible competitiveness” and “decent work environment”, involving both upgrading the productivity and market access of firms in developing regions, as well as benefiting local disadvantaged communities and populations, especially women. The national implementing partner for the JP is the “General Secretariat of the Istanbul Textile and Apparel Exporters’ Associations” (İTKİB), who implements the actions proposed in the JP along with the participating UN agencies, namely UNDP, UNIDO and ILO, and in collaboration with national stakeholders including government institutions, NGOs and private sector representatives.

As a part of this program, the aim of this report is to assess the extent to which Corporate Social Responsibility (CSR) principles are integrated into the daily operations of SMEs in the textile and apparel sector, which, in general, is expected to benefit the sustainable development of Turkey and support her to achieve the targets of the Millennium Development Goals (MDG). The project targets to upgrade the productivity and market access of companies as well as benefiting local disadvantaged communities in poor areas, including Central and South-eastern Anatolia. In short, within the framework of the programmed MDG, this *Assessment of CSR in Turkish Textile Sector Study*, aims to assess the current perception and status of sustainable development, issues pertaining to MDG, social and environmental conduct in the four pilot provinces Gaziantep, Malatya, Kahramanmaraş and Adiyaman. In this context *Assessment of CSR in the Textile Sector Study* is divided into three core areas regarding Sustainable Development (with the coordination of the İTKİB & UNDP) and CSR regarding both *Environmental conduct* (with the coordination of the UNIDO) and *Social Conduct : Labour Standards* (with the coordination of the ILO).

Chapter 2 lays out the broader framework of sustainability in supply chains, global standards and global practices when it comes to CSR and analyses how the changing global pressures in the textile and clothing industry paradoxically create new prospects and impediments into the adoption of CSR practices at the same time. While the intensifying global competition have put significant price and cost pressures in retailers and brand manufacturers raising the demand for better pricing and better quality from first and second tier suppliers, there has also emerged important consumer and investment pressures so as to adopt and ensure CSR practices. In this chapter, sustainability is defined in terms of supply chain sustainability. The chapter specifically explores how the corporate strategies as well as policies at the macro level can be formulated so as to increase Turkey’s textile and clothing industry standing in the global value chain and argues that both the competitiveness and the long terms success of the industry is based on adoption and diffusion of CSR principles. Adoption and diffusion of CSR principles follows four main steps; i) Commitment to supply chain sustainability, ii) Assessment of business scope, iii) Definition and Implementation and iv) Measurement and Communication

Chapter 3 examines the environmental aspects of CSR and is based on the premise that corporate environmental management is about finding a balance between economic and environmental protection issues. In this regard, economic issues, such as productivity, lower operational costs, or increased profits are to be tackled together with the pollution prevention and resource efficiency concepts. The chapter explores how the environmental management strategies, resource efficiency and cleaner production can be implemented both across the country as well as in the pilot region. What are the challenges and prospects of establishing environmental management and cleaner production in Turkey and in the pilot region? And how do these practices in the region compare when it is benchmarked against companies located outside the region? What are the best practices when it comes to solid environmental management systems? This section explores these questions.

In chapter 4 and 5, ILO has focused on the labour problems and concerns, which centred on informality, (unregistered workers), long working hours, unpaid overtime, absence of strong unionism and most importantly lack of gender inequality (and freedom from discrimination.) Turkish textile & clothing industry, a major employer in the industry, can indeed play a constructive role in helping these cities improve their MDG goals not only improving overall living standards in the region but also ensure decent work standards and gender parity.

Finally the report ends with the discussion of five business models to demonstrate good corporate practices with the context of CSR and aims to show the complementarities of socially responsible corporate strategies with profit maximization while at the same time contributing to the achievement of millennium development goals.

1. Global Trends and Turkey's Textile and Apparel Sector: An overview

The textile and apparel industry is one of the most important industries interrelated with supply chain management. It is a 600 billion dollar market globally in 2010 that is expected to grow to about 700 billion dollar by the year 2012. [1] There are 50 – 60 million estimated people worldwide working in the Textile and Apparel Industry and China has remained the largest producer and exporter of apparel. [2] This industry is unique in many ways. First, this is an industry that has played a significant role in the industrialization of all almost all countries around the world. Barriers to entry in the industry are relatively low. Entry does not require huge capital expenditures (compared with others such as automotive, machinery etc); knowledge intensity varies and tradability of good is high. [3] Textiles tend to be a capital-intensive business, while clothing is labour-intensive and usually relies on a low-cost workforce. And more importantly, the industry is still the most protected industry in the global economy, both in developed and developing countries due to its high employment and export potential.

Since the 1990s and with the new export-oriented economic policies, the textile and garment industry has become one of the significant sectors in the Turkish economy as well, not only in terms of its contribution to the employment generation and GDP but also to exports. The expansion of the industry is attributed to initial government support, the decreasing cost of labour, and the renewed capacity of the textile industry to support the rapid expansion in the manufacturing of ready-made garments. According to the Turkish Statistical Institute, 7,4 percent of the country's workplaces dealt with textile and apparel industry, 7,2 percent of recorded employment worked for the industry in 2011.

In 2010, Textile and Apparel Industry has become the leader industry in the country's total export with the share of 18 percent. This means, Turkey is also one of the leader exporters of the textile and apparel in world trade. In 2010, textile exports from Turkey, with a share of 3,6 percent, ranked as 7th in the world textile exports. Apparel exports from Turkey have a share of 3,6 percent and ranked as 4th in the world apparel exports. After China, Turkey is the second supplier of European Union Countries for textile and apparel products. Turkey performs 5,9 percent of textile and 6,4 percent of apparel export to the European Union countries[4].

Russia, Italy, Germany, Romania, Iran, Poland, UK, Bulgaria, The United States, Egypt, Spain, France are the leading countries where Turkey –the textile sector-exports its products [5]. "Clothing and Textile industry, on the other hand, is very crucial for the internal market. It provides almost 10% of Turkey's GDP together with approximately 14,15 % of total industrial production of Turkey." [6]

Ready-made clothing industry is the export champion of Turkey and it ranks the second biggest export earner after the automotive industry. Almost around 15 percent of all income driven from the exports comes from the ready-made clothing industry.

Table 1: The export share of selected subsectors in manufacturing (%)

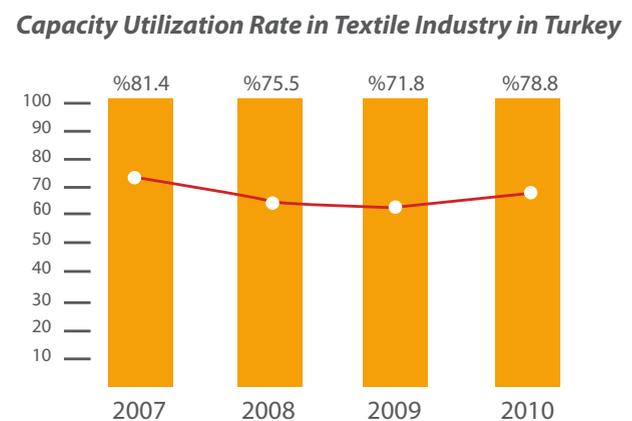
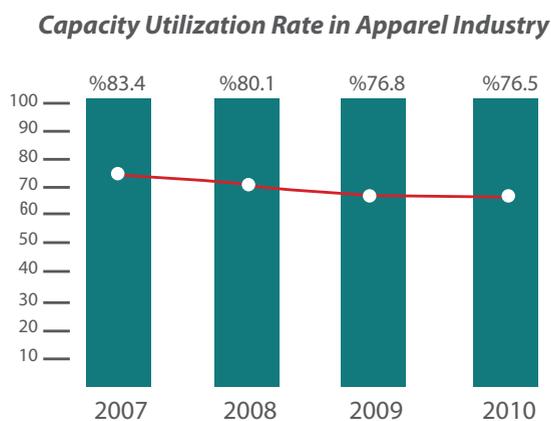
(Jan-July)	2011	2010	2009	2008	2007	2006	2005
Ready-Made Clothing	13,61	12,66	12,95	13,89	13,88	16,28	17,11
Automotive industry	11,90	14,83	18,44	15,04	21,61	18,74	18,35
Electricity and Electronics	8,71	8,33	9,58	9,07	8,79	9,65	10,79
Machinery and Parts	6,72	5,96	5,65	6,46	5,43	5,32	3,80

Source: Turkish Exporters Assembly, <http://www.tim.org.tr/tr/ihracat-ihracat-rakamlari-tablolar.html>

Today textile and garment industry provides a high level of employment in Turkey, and quality appears to prevail over price-cost competition. The industry has transformed into a structure in which trend, design, brand and knowledge based high-quality products are produced and sold. In fact, Turkish textile industry is gradually entering its maturity phase. Market share and cash flow have become the primary goals of the companies and revenues and profit margins are likely to decline due to lower sales, demand and more competition. When developed countries had entered a period of maturity in textile industry in the past, production had moved to Turkey so that Turkish textile industry had entered into a growth period at that time. However, as countries with lower labour cost have increased their share of world trade with the help of globalization, textile industry in Turkey has started to experience its maturity phase.

Though beyond the scope of this study some provinces in Turkey stand out in some subsectors of textile and garment industry. When regional structure is analyzed, it is observed that yarn production is widespread in Kahramanmaraş, Istanbul, Adıyaman, Gaziantep and Bursa while towel, bathrobe and home textile manufacturing is concentrated in Denizli. Moreover, yarn and blanket manufacturing in Uşak, textile finishing in Çorlu and Çerkezköy, cotton weaving and finishing in Adana, polypropylene, non-woven fabric, machine carpet production and knitting in Gaziantep have become prominent while garment manufacturing in Istanbul particularly stand out. The main focus of this study is textile and apparel industry and does not include sectors like yarn, carpets or home textiles.

While capacity utilization rate in textile industry in Turkey was 81.4% in 2007, 75.5% in 2008, 71.8% in 2009 and 78.8% in 2010, this rate for garment industry was 83.4% in 2007, 80.1% in 2008, 76.8% in 2009 and 76.5% in 2010. These figures connote that a decline has been observed in the years when the global crisis broke up and the industry has started to pick up its strength again in 2010.



The value-added created by the textile; garment and leather industry accounts for 5.3% of total value-added of Turkey in 2011. It is remarkable that textile and garment industry creates a value-added equal to the sum of the shares of food and motor vehicles industries, both having remarkable shares in total value-added of the country.

Like many other industries, textile and apparel industry has a network of supplier industries and other partner sectors. The most powerful rival in the world market for Turkish supplier industry for garment is China, which holds the price leadership. Unregistered manufacturing and unfair competition due to unqualified and cheap products imported from China are the major problems of the supplier industry. In addition, some apparel companies make contract for manufacturing abroad because of the burdens in Turkey arising from heavy taxes and high costs of inputs like energy and employment. This condition leads to decrease in the capacity of domestic apparel supplier industry.

Looking at the textile and apparel industry in general and the factors affecting it negatively or positively, it becomes important to evaluate the existing strengths and weaknesses of the industry. In this framework,

- ***Geographical location (e.g. closeness to export markets),***
- ***Young population,***
- ***EU Customs Union,***
- ***Flexible production,***
- ***Logistics,***
- ***New machinery,***
- ***Developed textile finishing industry,***
- ***World leadership in organic cotton are strong aspects of Turkish Textile & Clothing industry [7].***

However,

- ***Increasing global competition in the industry,***
- ***Higher energy and labour costs compared to competitor countries,***
- ***Lack of R&D and branding,***
- ***Unregistered manufacturing,***
- ***And fluctuations in the exchange rate are considered as the weaknesses for Turkish textile industry.***

While Turkey set a target of 500 billion USD export for 2023, the textile industry had estimated an export of 20 billion USD as 2023 projection. According to the 2023 strategy however, it is now aimed to increase the export of apparel industry by 52 billion USD and provide employment for 1.5 million people in the industry within 10 years.

Demand in textile and apparel industry is affected by demographic and economic growth, increase in the disposable income, urbanization and trend. If competitive environment with no quotas is taken into account, it is assessed that textile and apparel sector will grow in a considerable size depending on these variables.

2. Challenges Dilemmas in The Textile Industry: Turkey's Prospects For Moving Up The Global Value Chain

The value chain of the textile and clothing industry is buyer-driven in which many different, decentralized production levels operate. As elaborated in Chapter 1, large retailers, branded manufacturers and marketers, which control the global production networks, dominate this global value chain in textile and clothing. These large retailers often do not own their own factories (they are known as "manufacturers without factories" but organize and control production on a worldwide basis. Information flows directly from retailers to clothing manufacturers, to textile plants

where decisions are made on colour, patterns and material. The commercial buyers then are able to exert enormous pressure demanding lower prices, better quality, shorter lead times, smaller minimum quantities and supplier acceptance of as much risk as possible.

Responding to changing customer demands becomes a major challenge. Change in customer behaviours requires more customized products, shorter seasons, rapid product lifetime, and smaller manufacturing quantities. The customers are also becoming more demanding in terms of price. In fact, as will be elaborated further in chapter 1, price pressures particularly in the clothing industry have intensified over the last decade. With these consumer pressures and globalization trends, the retailers have started to source their production from the lowest cost locations around the world. This downward pressure on global prices along with the liberalization of global trade in the industry (with China becoming a member of WTO in 2001 and the end of Multi-Fibre Agreement in 2004) have intensified these competitive pressures even further. In short, brand-owner companies and large retailers control global production networks and stipulate supply specifications. The global players in the chains are able to exercise power over the members a step below in the chains. – *Retailers have significant power over manufactures a step below in the chains in terms of price, quality, lead times* in clothing industries. Provision of customized products, shorter and flexible seasons and production regimes are also very significant. This requires high competition and decentralized production chains. Indeed, international subcontracting systems and small-scale production has increasingly become an organic feature of that production chains. Yet, in spite of decentralization of production, due to the significance of brand naming, large multinational brand-owner buyer companies have begun to cluster and concentrate in developed economies. The growth in the buying power of retailers and large discount stores has allowed the retailers to control global supply network as well [8].

These competitive pressures create clear dilemmas and challenges for the implementation of the CSR in the sector. First of all, CSR is perceived as the responsibility of the companies, which are in the public eye. Because they only attract the attention of stakeholders, other companies may have little motivation to improve their social and environmental conditions. The second point is that a few large companies can control where all their products come from, which means that most of the companies can only reach their first production tier and cannot show concern for those further in the chain. Since it is not easy to follow immediate outcomes, most of the workers and stakeholders in the latter chains cannot benefit from the improvement of the conditions. The third point is that large companies cause dilemma for the companies they work with by demanding from them to improve the social conditions while also ask them to cut down the costs. The fourth point is that if only one company asks to improve the labour and environmental standards from its supply chain and the other companies do not; then the supply chain can show resistance to change [9]. Therefore, building a solid collaboration in policy among the international buyers and companies is necessary to create a labour and environment friendly practices throughout the supply chains.

Today, textile companies invest much in CSR promotion to prevent new regulations and to keep consumers satisfied. However a majority of companies represent the opinion of doing little/ nothing or even actively oppose yo CSR. Textile companies lagging behind in the CSR process often have a reactive and short-term management perspective. A reactive response on daily business concerns and pressure can lead to violations to social and environmental performances, often caused by factors like:

- Short lead times to keep up with fast moving trends and fashions;
- Last minute changes in specifications of fabrics or colour and delayed sample approval;
- Unreliable delivery of materials and accessories;
- Inefficiencies in production;
- Low skilled workers, leading to high rates of re-working;
- Seasonality leading to excessive hours in some months and lack of work in others;
- Little commercial incentive to reduce hours if overtime premiums are not paid;

- Low costs for discharge of emissions, solid waste and wastewater

Turkey's textile and clothing industry is the availability confronts with these challenges as well. One of the significant weaknesses of Turkish textile and clothing industry is relatively low level of international brand-naming companies. In that regard, textile and clothing companies in Turkey mostly function as subcontractors of multi-national brand-owner companies or large retailers. The composition of textile and apparel sector, especially exporter champion of clothing industry of Turkey is that relatively large national manufacturers re-subcontract their some of production phases to middle manufacturers at the national level. Yet, the roots of subcontracting tree are large. That is to say, these middle producers make contracts with other small local workshops.

In these relationships, similar with global production subcontractor companies, national large producers also have power to regulate their subcontracted producer. Yet, large-scale national producers compete with each other as autonomous enterprises to obtain orders from foreign buyers. Small scale subcontracted workshops in the lower segment should not be considered as fully autonomous since those large companies control and regulate their production and even management. But as chapter 1 indicates, there are clear limitations in terms of monitoring CSR standards in the Tier 2, sub-tier companies and suppliers [10].

Turkey is often preferred by international textile companies mainly because of its location advantages and better quality-price combination, although it has recently been challenged by lower labour costs in countries like China, India, Pakistan and Egypt [11]. These criteria still shape the strategy of the industry, which is considered as "produce the most suitable for the cheapest price" [12]. Clearly, however, Turkey cannot continue with this strategy if it wants to move up higher in the global value chain. Strengthening CSR practices with strong emphasis on supply chain sustainability and meeting environmental and labour standards in the country constitutes a crucial component of a "new" industrial strategy with a new vision.

3. Overview of Environmental Issues and Concerns in Textile and Apparel Industry

In Turkey, textile industry has quite fragmented and complex production system among the processes such as the production of simple fibre, yarn, fabric production for garment, industrial goods, and home furnishing. As will be elaborated in chapter 3, through the various production processes, high amount and various kinds of chemicals, raw materials, energy, and water are used. Consequently, relatively high amount of waste emission to many mediums of environment occurs and the effects are considerably harmful to environment as well as human health from several aspects.

For the case of Turkey, there is not sufficient data available concerning environmental aspects and impacts of textile industry; however, it is certain that there are vast quantities of water, energy, and resource consumption. Especially the high amount of water consumption, given as 350,000 m³/day, is quite a striking issue associated with the industry. The official data indicates a 1–1,5% share of water consumption within the resource inputs; however, there is widespread illegal use of ground water supplied by wells that are constructed by the operators without permits. As energy sources, commonly electricity, natural gas, fuel oil, and liquefied petroleum gas (LPG) are used. However, the electricity usage is widespread among textile manufactures despite its much higher cost compared to European countries.

Energy consumption is very important for the textile industry in Turkey. Energy usage in the textile industry in Turkey is inefficient, and energy consumption has been growing very rapidly due to population growth, rapid urbanization and industrial development. For future planning, it is important to know the current specific energy consumption (energy consumption/ production) and the energy intensity (energy consumption/ cost of energy) in order to estimate future energy consumption for the textile sector.

In Turkey, the textile industry has been reported as the third most energy intensive sector after iron/ steel and cement industries. The 8th Five Year Development Plan of Turkey also highlights that the cost of energy in textile processing is quite high. But, increasing global competition puts high demands on Turkish textile companies, one of which is an increased demand for cost efficiency. One important factor in reaching higher cost efficiency is to reduce energy cost and to use energy efficiently.

According to General Directorate of Renewable Energy (GDRE), among all operational cost items, energy cost is in the 3rd place just after human resources cost and depreciation cost. It is also emphasized by GDRE that most energy intensive production processes are wet processing operations, particularly dyeing and finishing applications. These processes are known to be of high potentials in terms of energy efficiency implementations since more than 85% of the energy is used for heating purposes in these processes.

Water and Wastewater Management is another major concern. In Turkey, textile industry has always been regarded as a water intensive sector that relies on ground water. One of the main environmental concerns is therefore regarding the amount of water discharged and the chemical load it carries. According to Turkish Statistical Institute reports for the year 2008, within the whole Turkish manufacturing sector, textile and garment industry is responsible for 15% of water consumption, which makes it the 2nd largest industrial water consumer (In 2008, textile and garment industry consumed 191.5 million m³ of water [13]).

Since textile industry has been matured into an important sector in terms of production capacity, water pollution and scarcity has become a major problem. As this sector of the economy has grown to an important level, a considerable demand is placed on the water supply of the country; at the same time, more and more pollutants have entered into the environment as the production of textile goods increased. Owing to this fact, controlling water consumption is one of the key implementations for optimizing water consumption.

Solid Waste Management: Textile and garment industry, having a share of 4% is in the 5th place in terms of generated solid waste amount within Turkish manufacturing sector. In 2008, 545.501 tons of solid waste was generated by the textile and garment industry. In short, energy consumption, water and wastewater management as well as solid management constitute the core issues in environmental CSR. That is why particular attention has been paid to wet processing plants where some of these environmental issues emerge the most.

4. Overview of Labour Issues in Turkey's Textile and Apparel industry

As will be elaborated in chapter 4 and 5, as a result of Turkey's position in the global textile and clothing production chain, the enlargement of small-scale production and dense subcontracting systems emerge as a very important and organic actor of the sector. This results in high informality, long working hours, de-unionized labour for textile and clothing sector [14]. Some 43,2 percent of total employees are not registered to any social security institution through their employment in Turkey; this rate is 30,1 in the urban areas. According to Social Security Institution, 791.114 workers are registered in the companies of textile and apparel industry in 2011 [15]. Despite the estimation of the Turkish Statistic Institution which is 60 percent of the employment in the industry is registered; in direct contradiction, there is a strong belief of 2 million people working in the industry, which means 60 percent of the employees are working unregistered [16].

Flexibility of labour externalizes the costs and risks to subcontracted firms, since the responsibilities of wage, social assistance, labour health and job security, environmental measures are all transferred to independent subcontract-

ed workshops at the local level. Workshops are contracted when there is demand for final product. When there is no demand from consumers, the contracts with the supplying units are simply not renewed. This just-in-time logic of production clearly reduces the cost of production by eliminating over-stock production. Also, this gives the retailers and manufacturers the chance to avoid possible labour problems; they do not have to pay unemployment benefits or to deal with strikes or wage negotiations. If there is a problem with a particular contractor, there are many others waiting for orders from buyer [10].

This also explains the prevalent practice of over work. Actual average hours of work per week are 52 hours for men while it is 48 hours for women in Turkey [17]. The working day in the informal workplaces in textile and clothing sectors, on the other hand, has reached 14-16 hours in a day and workers generally work 6 or even 7 days in a week [18]. Working Overtime is quite common in the Turkish Textile and Apparel industry. Although working hours are 8 hours and overtime hours are 3 hours a day in existing labour law, workers are forced to work more than 11 hours a day. Turkey is far behind the European Union countries and in a low bench in ILO statistics, while comparatively in a better position than Far East countries, particularly China. For example according to the statistics in 2008, employees nearly work for 48-49 hours in Textile and Apparel Industry and 54-55 hours in confection for weekly basis while it is very long compared to European Union countries, but less than China [19]. In addition to the informal employment, submitting false set of pay-roll records to the Social Security Department is almost norm in the medium and small-scale workplaces [20]

As the historical trajectory of the Textile and Clothing sector indicates, especially for the labour-intensive clothing industries, the production chain tends to find new countries where lower wages can be found. This transformation has been experienced in the historical shifts first from Western countries to Japan and then from Japan to the Asian tigers and finally to China [3]. In that regard, increasing global competition in the industry, and the movement of capital to the cheap labour caused an erosion of the strong sides of Turkish textile and clothing industry. For that reason, in addition to the internal subcontracting systematic, some garment companies is reported to begin making contract for manufacturing abroad in order to reduce tax, energy and labour cost. Since lack of R&D, innovation and branding are basic weakness of the industry both state actors and business cooperation seek to construct more competitive, innovation based industry and original design manufacturer and to transform its current labour-intensive characteristic and move higher up the global commodity chain [5].

Finally, there are also safety and health standards concerns. According to Statistics of the Social Security Institute, the Textile and Apparel Industry is in the 4th row after metal, construction, and coal industries in terms of industrial injury. The most important hazards, in respect of the risk they have created, are: ergonomic hazards, noise, dust, thermal comfort, burn, and usage of cutting equipment (scissors etc.), usage of sewing machine needles, needles, air pollution and chemicals.

Lowering the labour cost and the decentralization of the production to the developing regions that provides low labour cost can be evaluated as responses to the global competition. Yet, it should be kept in mind that, this kind of policy and solutions are not permanent. This decentralization of production to the developing regions is not only related to the cheap labour force of the region, but also related to the economic and social development of the regions. In this context, for a permanent solution, especially for Turkey to create its own brands, an innovative and labour/environment friendly textile sector that depends on R&D, is urgently needed.

5. Textile and Apparel Industry In The Pilot Regions

With the establishment of export-oriented economy, certain provinces, which were excluded from industrial production, begin to increase their industrial capacities. Especially Gaziantep among those 4 cities has now experienced a new economic expansion period [21]. So the share of industry and industrial employment in the total economic activity has significantly increased in those regions. Similarly, the share of the region in the textile exports has been on the rise. In 2010, the textile firms and factories in the region generated 11,4 percent of all export incomes of the textile industry. Gaziantep is very strong in carpentry and in the textile raw materials together with Kahramanmaraş. These two cities make up almost 23 percent of all exports in all textile raw materials. The data also shows that the clothing export income has relatively low share in the exports.

Almost 10% (409.786 people) of the region's population depends on the textile and clothing industry in the region according to expert's calculations and available statistics. One of two largest industry concentrations in the region is textile and clothing sector (representing 37% of industrial companies and 69% of all regional jobs). More than 69% of all formal registered jobs (91.790) have been created by the textile and clothing industry in the region. 35% of employment in Malatya and Adıyaman, 44% of employment in Kahramanmaraş and 42% of employment in Gaziantep is in textile and clothing industry[6]. Although production facilities are located in the region, headquarters of most of big and mid-size companies are in Istanbul. So the decision-making organs of these companies are mostly located outside the region. The clothing firms in the region are subcontractors of other big firms in Istanbul or other cities and their product is mostly exported through the firms located in Istanbul. That is why their share in export may be misleading in clothing than the other textile sub-sectors. So, the medium and small-scale companies, which have less than 50 workers, dominate textile and clothing production in the region.

Indeed, small-scale production constitutes one of the specific features of the region. According to the Social Security Institution data, distribution of workplaces' numbers according to their scale shows that 99 percent of workplaces are SMEs in textile and apparel industry. 66,8 percent of textile labour and 79,6 percent of apparel workers are working for SME's. So, the institutionalization of the cooperation is low and these small companies basically function as subcontractors of other big companies. Since the low labour cost determines the competitiveness of the industry, main objective of these companies are economic efficiency and labour productivity. In addition, especially for small-scale local firms, which depend on large manufacturers, the organization and competitiveness of production are not valid.

1.357 textile and clothing companies employ 91.790 registered workers in the region. The areas of specialization in each city differ considerably in some cases – for example Adıyaman and Malatya are highly specialized in clothing, Kahramanmaraş, in contrast, is specialized in yarn, fibre and fabric production. Firms in Gaziantep are mostly specialized in textile products together with carpets, technical textile products “nonwovens” and knitted tricots.

Not surprisingly, informal employment is almost a norm (especially for women) in small-scale production in these pilot regions. “Total registered workforce is less than green-card holders in the region. Despite its start as a health insurance aid, today the green card system has turned into a comprehensive social aid mechanism with miscellaneous support tools such as cash aid, accommodation and food aid, education aid, elderly salaries etc. Because most of poor and unskilled people prefer to work in an unregistered manner or to remain unemployed in order to save the benefits provided by the system.” Unregistered employment is estimated at 20,7% (19.039 workers) of total registered workforce in the textile and garment industry. 680–690 unregistered companies operate in the region's textile and garment industry [6]. *Long working hours* is another common concern. 9 or 10 hours are evaluated as a regular working time. In that sense, it is almost the same with the general picture of Turkey. Overtime work is seen as a norm in nearly all the clothing companies in the region [22].

6. Millennium Development Goals, Socioeconomic Profile of the Pilot Region and its Implications for the Textile and Clothing Industry

The problems of the textile and apparel industry in the pilot regions described above do not necessarily exclusively emerge from the nature of the industry and the market dynamics. The socio-economic profile of the region also poses fundamental challenges. That is why achieving CSR particularly in the relatively less developed provinces of the country is relevant and important as CSR can contribute significantly to Turkey's ability to reach the Millennium Development Goals (MDGs). As is well known, MDGs The Millennium Development Goals (MDGs) are eight international development goals that all 193 United Nations member states and at least 23 international organizations have agreed to achieve by the year 2015. The goals are:

- a) Eradicating extreme poverty and hunger,
- b) Achieving universal primary education,
- c) Promoting gender equality and empowering women
- d) Reducing child mortality rates,
- e) Improving maternal health,
- f) Combating HIV/AIDS, malaria, and other diseases,
- g) Ensuring environmental sustainability, and
- h) Developing a global partnership for development.

Most importantly the level of poverty in the region is quite visible. "Average yearly disposable income is 2.322,60 USD (1,5 USD per person per day) for approximately 25.0006 households and 3.779,60 USD (2,5 USD per person per day) for approximately 41.000 households in the region. We can say that 2,4% of the population of the region is below the hunger threshold and 3,96% of the population is below the poverty threshold [23]. As table 3 indicates, average daily incomes are considerably lower than Turkey averages.

Table 2: 2010 Average Daily Income (TL)

	Permanent	Seasonal	Public	Private	Male	Female	Average
Adiyaman	38,48	34,81	72,49	29,49	37,40	36,69	37,27
Gaziantep	34,44	31,70	68,85	31,67	32,87	40,89	34,03
Malatya	37,30	31,79	70,92	31,13	35,83	36,36	35,93
Kahramanmaraş	35,22	37,26	73,17	30,75	35,66	36,44	35,76
Turkey	45,28	34,83	74,27	40,51	43,36	43,49	43,39

Source: SGK, 2012

Large percentage of green card holders (which has now been transformed into a generalized insurance scheme) is also a sign of prevalent poverty in the region, particularly in Adiyaman.

Table 3: The Ratio of Health Card Owners in the Total Population by Region (%)

Turkey	12,7
Adiyaman	41.1
Gaziantep	14.9
Malatya	18.2
Kahramanmaraş	24.7

Source: SGK (2011)

With the exception of Gaziantep, these are also provinces that lose their population every year. Table 4 indicates that though the rate of negative net migration has slowed in Adiyaman, it has significantly accelerated in Malatya and Kahramanmaraş.

In sum, some of the labour problems, evasion of some of the environmental standards as well as the challenges in establishing CSR based sustainable supply chains in the region are intertwined with the difficult socio-economic profile in the region.

Table 4: Provincial Rate of Net Migration

	Rate of net migration (%)		
	2007-2008	2008-2009	2009-2010
Adiyaman	-14,96	-10,49	-10,08
Gaziantep	0,59	1,18	2,39
Malatya	-3,17	-3,25	-7,55
Kahramanmaraş	0,55	-8,08	-7,07

Source: TUIK (2012)

7. Gender Perspective – Problem of Female Employment in Turkey and in the Region

As will be elaborated in Chapter 5, female employment rates in non-agricultural work in the region range between from 9 percent to 17 percent. Typically, women have a larger role to play in agricultural production. Even though the numbers seem to increase in recent years, women make only a small portion of workers in non-agricultural activities which suggest that women remain to housewives burden with childcare and household chores. The share of female workers into the textile and clothing sectors are 22,6% in Malatya, 71,8% in Adiyaman, 24,4% in Gaziantep and 17,7% in Kahramanmaraş respectively [6]. The variation of gender division of labour in the industry basically results from the variations of the sub-sectors in the cities. While sewing or ready-made clothing seems like women job, men dominate some departments such as the weaving and dyeing sections and ironing and cutting. This gendered division of labour explains as to why women dominate the sector in Adiyaman. Namely, high women participation

in the labour market in Adiyaman completely derives from the position of clothing industry in the city, which is cotton, based knitted fabric clothing and women are employed as machine operators.

It is evident that the textile and clothing industry offers women employment opportunities in the region and women's involvement are larger in the clothing production. However, the production in the areas of technical textile and carpentry do not rely much on women's employment but mostly made dominated production areas. This case is most visible in the industrial production zones in Gaziantep, where the most of city's industrial employment is taking place. Therefore, women are exclusively discriminated from these areas. Women only become visible workforce when there is more concentration of clothing production as in the case of Adiyaman.

The age composition stands out as the most distinct feature of female employment in the industry. Young women between 17 and 25 are the prime supplier of labour for the textile and clothing industry. Thus, women's work is conceptualized as a short-term activity until their marriage. In average 2-3 years of employment is predicted for women. This is very short time when considered the training involved to get a manual worker into a skilled worker. The high turnover rate of women workers is a great loss for the industry, which also affects the productivity of a worker and may mean losing a worker when s/he reached the optimum capacity and skill.

Working conditions are serious obstacle for women's long-term employment in the textile and clothing industry. Long working hours and often overtime work are the main concern for families when they let their girls in paid employment. Dominating informal work conditions generate obstacles for women to access to employment and maintain their work for a long time. The low rate of female employment in the region is a result of patriarchal and cultural values attained to women's role in the society and of harsh working conditions in the industry through which women find it quite difficult the reconciliation family and work life.

Finally, improving the working environment for women and encouraging more women to participate into the textile/apparel industry labour market with equal pay and under better conditions can also help further one of Turkey's fundamental MDGs, that is achieving gender equality and women's empowerment. That is why establishing clear CSR guidelines in these pilot regions which include women's empowerment and participation can be an effective strategy in helping Turkey achieve its MDGs.

8. Scope and the Methodology of This Study

Over the course of the research study two different data gathering techniques have been used; one is a survey study to SMES and the other one is an interview with various corporations and stakeholders.

SME surveys

For the first part, sample group is 100 SMEs in the target region. Four Workshops are organized in each of the provinces including Adiyaman, Gaziantep, Kahramanmaraş and Malatya to select 100 SMEs in the pilot provinces who are interested with the project and willing to participate in the survey. In this context the General Secretariat of Istanbul Textile and Apparel Exporters' Associations sent all the relevant information about the study into its network in the pilot region and SMEs were invited to the workshops. Top management of the SMEs operating both in textile and apparel industries attended the workshops held in May 2011. After the presentation of the project, the participants filled in the surveys where they got further support from the working group. As noted earlier, though the UN Global Compact constitutes the main framework of this assessment report, various partners in this research have emphasized different aspects of the CSR. While İTKİB focused on the concept sustainability studied through all actors taking part in entire supply chain, UNIDO studied environmental management issues and ILO studied

the labour practices and standards. The questionnaire has three main parts specifically designed for to understand level of awareness and implementation of manufacturing SMEs on CSR: sustainability, environment and working conditions. Each partner prepared their own set of questions for the SME surveys.

iTKiB started with:

a) Desk research study to provide information on global trends in textile sector and supply chain sustainability framework in the light of international policies and standards with a special focus to UN Global Compact.

b) Survey study targeted 100 SMEs and aimed to review understanding of CSR and sustainability in relation with company value chain and company strategies having linkages with external factors. The sustainability questions addressed five themes:

- Define the company's management strategies through the best option,
- Describe the conditions regarding customers through the best option,
- Select the best option describing conditions regarding production and supply processes,
- Presence of corporate Social Responsibility applications in the company
- Describe conditions about CSR applications in the company through the best option.

The main aim of the study was to assess the level of awareness on supply chain sustainability in textile industry and SMEs, linkages of SMEs in their current operations with big companies and various stakeholders.

UNIDO formulated the questions assessing textile industry companies' perceptions/ understanding/ awareness of environmental management and cleaner production. Questions were grouped under 6 themes:

- General environmental policy and perspectives on the environmental legislation
- The relationship between production processes/ system/ technologies and environmental management
- Measurement, implementation and monitoring activities realized in the context of environmental management and cleaner production.
- Impact of resource/ waste management on company's production and expenditures
- Existing and intended activities for reducing the environmental impacts and associated costs
- Impact of market conditions and customer relations on environmental performance and related costs

After the workshops, questionnaires were also sent to other textile companies in the target region by e-mail and fax messages. In addition to e-mail and fax messages, visits were carried out in Gaziantep and Kahramanmaraş to wet processing companies in order to get detailed information about their environmental situation/ performance through interviews besides filling in the questionnaires. Since, the major environmental impacts associated with the textile manufacturing are caused by the wet processes, UNIDO specifically focused on wet processing companies and effort has been made to involve sufficient number of wet processing companies in the study, through the visits carried out for interviews and the surveys.

The questions for the assessment of the compliance of labour standards are prepared and formulated in a way based on main ILO norms and national legislation. Before starting to prepare the surveys, a working group attended to a workshop at the International Training Centre of the ILO, Turin (22 -25 February 2011) about "ILO's CSR Principles and International Labour Standards" to frame the outline. The questions were prepared by the working group and ILO and discussed with all the project partners for finalizing the consolidated survey.

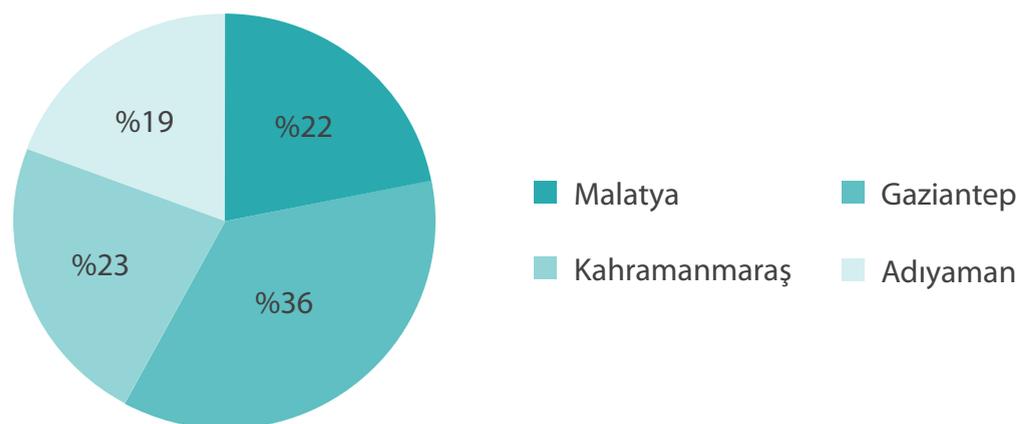
The questions surveyed are categorized under 6 categories;

- Working Conditions of Labour;
- Wage Policy and Contractual Obligations;
- Productivity;

- Situation of Women Workers;
- Social Audit Experience;
- Compliance with National Regulations on textile.

After the 4 workshops in the pilot region, all the 100 results were recorded electronically and double-checked with other partners of the project for analysis. Distribution of sample of 100 SMEs working on Textile and Apparel Industry in the cities of the project region is as follows.

Figure 1. Dispersion of SMEs Surveyed by Cities



Working Conditions of Labour category reflected data on forced labour cases, payments for overtime working hours, insurance situation of labour, existence of labour unions, collective bargaining, health – security and environment conditions, severance payments, communication, labour participation to decision making process, labour committee, labour representatives, *Wage Policy and Contractual Obligation* section focused on existence of contracts during the recruitment process; full payment of salaries on time; lack of labour force working under minimum wage, *Productivity* related questions of the survey attempted to reveal the employee level of satisfaction, accession rates, discontinuity, skilled labour force, professional managers. *Situation of Women Workers* was also at the centre of the survey as the Textile and Apparel Industry recruits a mass number of women at factories. In this regard, gender equality on recruitment, special gender policies, working conditions for women were surveyed. Social Audit experience of SMEs at Textile and Apparel Industry was also researched and diverse comments were shared by the SMEs, which reflected the social standard criteria for the factories. *Compliance with National Regulations* on textile was questioned with narrative views from SMEs.

Semi-structured interviews with big corporations and additional SMES

Second tier of this research involved series of interviews with big corporations and other stakeholders. With this aim, İTKİB& UNDP team conducted interviews with 5 international buyers to review expectations from the suppliers and implications of international standards and policies to the industry. The team also studied Good practices study to examine business activities and examples of code of conduct in Turkey to identify expectations and the gap between SMEs.

Similarly, since one of the major objectives of UNIDO's study was to compare the companies from the target region with the companies from other regions of Turkey in terms of environmental situation/ performance UNIDO subjected the wet processing companies from target region, known to have a high environmental impact benchmarking with wet processing companies located in fairly more advanced regions of Turkey. For this purpose in total 12 companies from Istanbul, Bursa, Tekirdağ, Kayseri, Adana and Afyonkarahisar were reached through the survey. In

addition to the site-visits to the companies in the target region, 6 companies were visited in Tekirdağ, Bursa and Afyonkarahisar in order to get detailed information about their environmental situation/ performance. From these companies data was gathered via semi-structured interviews as well as questionnaires filled in together. (A total of 37 questionnaires are filled with wet processing plants including 21 on-site visits).

For big corporations, UNIDO prepared a questionnaire with 14 open-ended survey questions so as to obtain a bet-

Table 5: Distribution of the questionnaires of wet processing companies by provinces

Target Region	Evaluated Questionnaires (of wet processing companies)	Visited Companies (of wet processing companies)
Gaziantep	13	12
Kahramanmaraş	8	3
Malatya	3	0
Adiyaman	1	0
Subtotal	25	15
Other Regions		
Tekirdağ	5	4
Kayseri	2	0
Bursa	2	1
İstanbul	1	0
Adana	1	0
Afyonkarahisar	1	1
Subtotal	12	6
Total	37	21

ter understanding on the relevance of environmental management principles and standards for large enterprises when it comes to selecting their suppliers and auditing their performances. In this part of the study, 10 large enterprises are surveyed to better understand their influence on suppliers at several tier levels in terms of environmental management. Concerning Tier-1 suppliers, the core interest lies in finding out to what extent they transfer awareness/ knowhow and impose requirements on environmental issues that they receive from their customers (e.g. multinational corporations) down the supply chain.

UNIDO also categorized companies into various levels. Based on the answers, companies were graded between 0–100% for each of the questions. Level of environmental performance/ competence of the company for associated area was determined by taking the average of the scores of questions. By doing so, companies were ranked/ scored as follows:

- Level 4 (Companies with 75–100% grade-level)
- Level 3 (Companies with 50–75% grade-level)
- Level 2 (Companies with 25–50% grade-level)
- Level 1 (Companies with 0–25% grade-level)

Finally, ILO team interviewed 7 large national or multinational textile companies (buyers) in order to add their perspective to the study. The working group also had the chance to interview up to 15 SMEs in the pilot region during the workshops.

9. Semi-Structured Interview With Stakeholders

Finally, all the research teams interviewed relevant stakeholders for this study. The İTKİB interviewed 10 stakeholders including NGOs and government institutions to review level of engagement in supply chain sustainability. Business associations and chambers both in the target region as well as in Istanbul and Ankara were included. Similarly, UNIDO interviewed 17 stakeholders at national, regional and sectoral level. Once again ministries, umbrella organizations, regional development agencies, non-governmental organizations (NGOs), chambers of industry/ commerce and consultancy companies were included in these open-ended surveys to explore both the legal and policy context of environmental management and cleaner production. Finally, ILO surveyed 19 other relevant stakeholders such as labour unions, business organizations and public institutions particularly in the region, in Ankara and in Istanbul.

Limitations of the Methodology and Sampling

First of all, the subject and questions of the research are the main limitations in order to get right answers from the respondents. Since the questions are asking the existence of unethical and unlawful applications within the company or not, the respondents who are generally owners or managers of the company refrained from answering them or tended to give mostly positive answers to the questions because of fear to be accused by government and other stakeholders and creating a good image for their company. Since the questions were formulated in self-assessment format, the results have drawn an overwhelmingly more positive picture than the reality on the ground.

Secondly, owners, and top management of SMEs have completed this survey, and also interviews have been made with the owners of the SMEs. Because the workshop participants have filled most of these surveys, it is not clear whether the representatives who attended were actually knowledgeable and sufficiently authoritative regarding the company practices, i.e. supply chain sustainability, environmental practices and labour standards. Particularly, with regards to labour standards, very few workers were interviewed to get a truthful picture of labour practices, which is a major limitation in the study.

Since the sample group of SMEs and large companies have not been chosen randomly, and sample design had certain limitations. In other words, it was firms who decided to join to the project, rather than being selected randomly by the researchers. For that reason it is important to emphasize that findings in this report cannot be generalized to the whole pilot provinces. There are differences considering area of the Textile and Apparel Industry, the regions where they operate, whether they export and their sizes. Sample group of SMEs and large companies have not been chosen regarding their features and whether or not they work with a company in the project provinces. As sample size does not reflect main characteristic of population, the result of survey research of the project cannot be generalized to the whole cities in the project, and to Turkish apparel and textile industry. For instance, even though a significant percentage of the firms in the textile and particularly the clothing industries employ less than 10 people, the number of SMEs interviewed in the 104 company representatives that attended these workshops, were skewed towards larger companies. More importantly, as indicated before, some of the findings in this research may be closely related to the unique circumstances and socio-economic conditions in the region and may not be generalized to the analysis of the entire Turkish textile and clothing industry.

10. Business Models

The final part of this assessment report is reserved for the lessons learnt from the business models in CSR. The basic rationale behind this activity is to provide case studies, which can be used as a tool for textile sector SMEs in order to motivate them for better performance in this area. İTKİB has interviewed five companies to demonstrate those companies who have developed good corporate guidelines and strategies to uphold the principles of CSR and sustainable supply chains. The relevant report also demonstrates not only the wide range of practices among the companies but also shows practice models in one area of CSR may not always assure best practices in other aspects. A company with best labour standards, for instance, may not always be good environmental management and vice versa. Nevertheless, these business models are crucial to show how profit, people and plant can all intersect and are not mutually exclusive which ultimately constitutes the core argument of CSR.

The report concludes with specific policy recommendations for various stakeholders and companies both in and outside the pilot region. What the big companies, major enterprises, various Ministries, NGOs, associations and unions can and should do, are specifically articulated.





Supply Chain

Chapter 2 Sustainability

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Supply Chain Sustainability

Prepared by İTKİB

In this chapter supply chain sustainability and its vital role in Corporate Social Responsibility has been widely discussed. Reader can also access the extended version of the Sustainability Report from the project's web site. In business environment including textile and apparel industry, sustainability under Corporate Social Responsibility is interpreted as Corporate Sustainability or Sustainable Development. Similar to global industries, textile and apparel industry is subject to global supply chains. To sustain and grow manufacturing companies in global competition environment, local implementations bounded with commercial concerns may not always address global requirements. To this end, integrating supply chain sustainability in a company business strategy is the matter of competitiveness not only for macro scale companies but also for SMEs.

Within the scope of the Project, the concept of sustainability has been studied through all actors taking part in entire supply chain and therefore, different research techniques applied at different levels of the supply chain:

- Desk research study to provide information on global trends in textile and apparel sector and supply chain sustainability framework in the light of international policies and standards with a special focus on UN Global Compact.
- Sustainability survey was prepared and applied to 100 SMEs in pilot provinces of the project. Survey study has aimed to review understanding of CSR and sustainability in relation with company value chain and company strategies having linkages with external factors.
- Interview with five international buyers to review expectations from the suppliers and implications of international standards and policies to the industry.
- Interview with stakeholders including NGOs and government institutions to review level engagement in supply chain sustainability.
- Business models reviewed to examine business activities and examples of supply chain sustainability implementations in Turkey to present business models to SMEs.

This chapter can be seen as a brief guidance for companies to initiate and advance their supply chain sustainability efforts. It can be also used to develop and strengthen current policies in relation with supply chain sustainability through supporting collaborative actions among involved stakeholders.

1. Supply Chain Sustainability in Textile and Apparel Industry

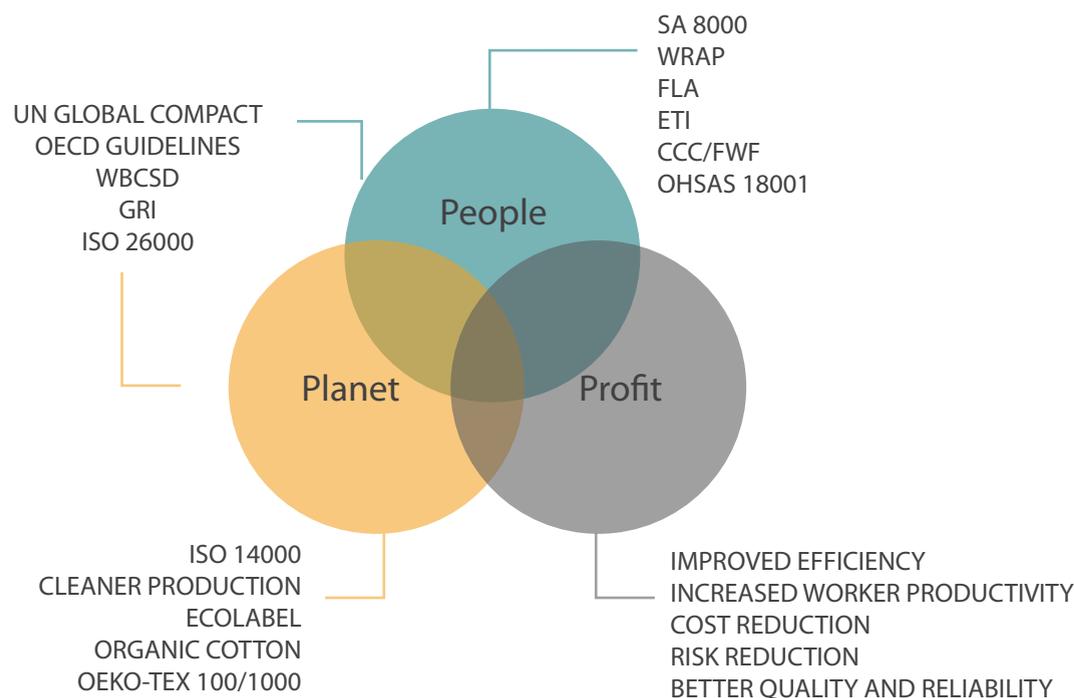
The aim of the Corporate Social Responsibility is to generate strategies by which profit may be obtained in a sustainable manner. The introduction of CSR criteria into business management is based on three principles: i) regulation of policies and management systems in the economic, social and environmental areas; ii) clear, transparent information on achieved results; and iii) the external scrutiny of the obtained results. Therefore, by incorporating Corporate Social Responsibility in the company's strategic and management model, the confidence of its clients can increase; it helps to optimize company management and improves market performance. Careful monitoring and analysis of these corporate social responsibility strategies allow all related parties to adapt results to the real scenario.

Textile and apparel companies lagging behind in the CSR process often have a reactive and short-term management perspective. A reactive response on daily business concerns and pressure can lead to violations to social and environmental performances.

2. International Policies and Standards

Competitive global environment, increasing concerns of customers on environment and society led international policy decisions to set international standards and policies to ensure contribution of manufacturers which implements sustainability programs or follow the CSR approach.

Globally a number of standards have been developed in order to help companies address various aspects of CSR. The major standards for workplace conditions in supply chains are SA 8000 (from Social Accountability International and for use in any manufacturing), WRAP (for apparel) and a number of initiatives based on a membership model such as the Business Social Compliance Initiative (BSCI), Fair Labour Association (FLA, for apparel), Ethical Trading Initiative (ETI, based in UK and with member companies across a number of sectors, particularly retailers), Worker Rights Consortium (WRC, with membership based on US colleges and universities in a range of manufacturing sectors but mainly apparel), the Clean. Clothes Campaign (CCC, a European NGO based on apparel production), and the Fair War Foundation (FWF, based in the Netherlands and targeting apparel). Beyond these standards, there are guidelines such as OECD, United Nations Global Compact, World Business Council on Sustainable Development and GRI [1].



Source: Yperen, 2006, *Corporate Social Responsibility in Textile Industry*

As it is stated there are a number of standards for implementing CSR, in this report brief information provided on the ones which, the report takes as the reference point.

UN Global Compact

The UN Global Compact is one of leading platforms for companies that provides international environment to submit their reports, performance and accepted as international player. The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the same areas of human rights, labour, environment and anti-corruption.

As social, political and economic challenges (and opportunities) – whether occurring at home or in other regions – affect business more than ever before, many companies recognize the need to collaborate and partner with governments, civil society, labour and the United Nations. This ever-increasing understanding is reflected in the Global Compact's rapid growth. With over 8700 corporate participants and other stakeholders from over 130 countries, it is the largest voluntary corporate responsibility initiative in the world.

Endorsed by chief executives, the Global Compact is a practical framework for the development, implementation and disclosure of sustainability policies and practices, offering participants a wide spectrum of work streams, management tools and resources – all designed to help advance sustainable business models and markets.

Overall, the Global Compact pursues two complementary objectives:

1. Mainstream the ten principles in business activities around the world.
2. Catalyze actions in support of broader UN goals, including the Millennium Development Goals (MDGs)

The Global Compact exists to assist the private sector in the management of increasingly complex risks and opportunities in the environmental, social, and governance realms, seeking to embed markets and societies with universal principles and values for the benefit all [2].

The Global Compact is global and local; private and public; voluntary yet accountable. The benefits of engagement include the following:

- Adopting and established and globally recognized policy framework for the development, implementation and disclosure of environmental, social and governance policies and practices.
- Sharing best and emerging practices to advance practical solutions and strategies to common challenges.
- Advancing sustainability solutions in partnership with a range of stakeholders, including UN agencies, governments, civil society, labour and other non-business interests.
- Linking business units and subsidiaries across the value chain within the global Compact's Local Networks around the world – many of these in developing and emerging markets.
- Accessing the United Nations' extensive knowledge of and experience with sustainability and development issues.
- Utilizing UN Global Compact management tools and resources and the opportunity to engage in specialized work streams in the environmental, social and governance realms.

Social Accountability 8000

In 1997, Social Accountability International (SAI) launched Social Accountability 8000 (SA 8000), a voluntary standard for workplaces, based on ILO and UN conventions. SA 8000 is a uniform, auditable standard for a third party verification system on social issues, initiated by Social Accountability International (SAI). SAI is a non-governmental, international, multi-stakeholder organization dedicated to improving workplaces and communities by developing and implementing socially responsible standards. SAI works with companies (International brands such as Chiquita, Dole, Gap, Timberland, Avon Products and Co-op Italia), consumer groups, non-governmental organizations (NGOs like Amnesty International and CARE), labour organizations, governmental agencies, and certification bodies around the world.

Together with these stakeholders and with other multi-stakeholder initiatives, fair trade, environmental organizations, development charities and anti-corruption groups, they carry out research, training and capacity building programs. SAI is member of the Joint Initiative on Corporate Accountability & Workers Rights (Jo-In).

Worldwide Responsible Accredited Production (WRAP)

The Worldwide Responsible Accredited Production (WRAP) is an independent, non-profit organization dedicated to the certification of lawful, humane and ethical manufacturing throughout the world. The initiative is mainly applied in US and Latin American countries.

WRAP is a civil society organization dedicated to promoting humane, ethical and lawful conditions and practices in manufacturing facilities all over the world. The organization achieves this by a Certification Program that certifies individual factories for compliance with WRAP's principles and procedures. The WRAP Apparel Certification Program has operated since 2000; programs of other industries will be added in the future. In addition, various training programs educate workers, factory managers, government inspectors and others about issues related to global supply chains and their workers. Apparel producers are accountable for their global production practices to consumers, retailers, governments and others [3].

3. Supply Chain Sustainability Framework

Increasing number of companies improves their commitment to responsible business practices and paying more attention to their value chains and has efforts to re-organize business models from subsidies to suppliers. This is not only because of the regulations or legal obligations, but sustainable supply chain management provides more business return. Implementing good practices has substantial potential to contribute international markets.

Supply chain sustainability is the management of environmental, social and economic impacts, and the encouragement of good governance practices throughout the lifecycles of goods and services. The objective of the supply chain sustainability is to create, protect and grow long-term environmental, social and economic value for all stakeholders involved in bringing products and services to market [4]. By working together, buyers and suppliers can not only ensure a baseline standard of business conduct to be met but also collaborate to improve the impact of business on society and the environment around the world.

Customer and investor expectations are driving companies towards more responsible supply chain management. Companies simply can follow basic steps for supply chain management and share their practices globally. Supply chain sustainability and management provides local companies visible to international markets. In the following part steps to be taken by the companies are presented.

3.1. Commitment to Supply Chain Sustainability

Managing Business Risks

Companies can protect themselves from potential supply chain interruptions or delays associated with suppliers' human rights; labour, environmental and governance practices by ensuring suppliers' effective compliance programmes and management systems covering all the areas of the Global Compact Principles. For companies who have a single source for key inputs, managing risks is also critical to ensuring continued access to those resources.

Realizing Efficiencies

A focus on realizing efficiencies in the supply chain can reduce company's supply costs while also reducing the environment footprint of the supply chain, including energy, water and natural and synthetic material use, as well as improving worker health and motivation and productivity.

Creating Sustainable Products

Collaboration with suppliers on sustainability issues can foster product innovation. Companies embarking on such initiatives have added new features and performance characteristics to existing products and even generated new products. For example, sustainable products may result in fewer negative environmental impacts than traditional products or have improved end of life collection and disposal options. It is possible for the sustainability of products to be a differentiating factor and to lead to increased sales for some companies.

Reviewing External Factors

One of the first steps for understanding a supply chain and working on sustainability is to evaluate the external environment. This effort will help to identify the highest priority supply chain issues for the company, evaluate risks and opportunities and build the internal support to move forward.

Establishing a Vision

Having a clear vision and objectives for company's sustainable supply chain will provide direction for the strategy and help to Company's commitment. A vision will be helpful in evaluating the success of the efforts and in identifying areas for continued improvement.

Establishing Sustainability Expectations for the Supply Chain

It is important to clarify expectations in order to provide a better direction for the suppliers as well as the internal departments within the company. It is essential to make clear that any supplier should at least comply with national laws and efforts to avoid environmental and social harm.

Developing Code of Conduct

Developing code of conduct is important for companies to establish and manage expectations from their suppliers and provide information to their customers. UN Supply Chain Sustainability Guide stated that codes of conduct create a shared foundation for sustainability, from which supply management professionals, suppliers and other actors can make informed decisions. For many companies, a supplier code of conduct is a natural extension of corporate values statements and seen as an affirmation of existing expectations rather than a new set of requirements.

3.2. Determining the Scope for Supply Chain

Developing a supply chain sustainability approach or a specific programme is vital for a company stepping towards a global competition. To design a programme or even an intention of an approach requires that the scope is determined.

Often companies that are just starting out in supply chain sustainability seek to, or feel pressure to, engage their entire supply chain. Many companies therefore chose to focus their approach on their "key" or most "strategic" suppliers, which are often those that the company sources directly from, has significant spend with and/or views as critical to production [4].

The objective of determining the scope is to identify which suppliers of those will be engaged with and to what extent to change over time as companies become more sophisticated and capable to manage supply chain sustainability more effectively.

Mapping Supply Chain

To identify scope for managing sustainability in the supply chain, companies have to define what company's supply chain is. A segmentation work mapping supply chain helps to trace the key activities of organizations and people involved in bringing a product or service from raw material to market.

3.3. Definition and Implementation

Engaging with Suppliers

It is vital to engage and work with suppliers to improve supply chain sustainability. It is possible to develop a shared mindset about sustainability issues, build ownership of sustainability vision and increase performance to work closely with different suppliers. To engage suppliers, there is need to raise awareness on sustainability among suppliers. It is efficient to use code of conduct, besides benefiting from existing customer supplier communication tools and programmes.

Monitoring and Audits

A monitoring system provides information on whether suppliers are complying with the codes and expectations a company has put in place. Monitoring systems are effective in establishing baseline measurements and assessing recent and current performance relative to minimum expectations.

Remediation Supplier Capability Building

Supply Chain Sustainability is an evolving concept which should include both remediations of instances of non-compliances as well as investments in suppliers' management capabilities. Capability building includes a variety of efforts, from training for supplier personnel to establishing worker hotlines and resource networks [4].

Engaging with Sub-Tier Suppliers

Companies in some cases carry the risk in the suppliers who are one or more links away in the supply chain. Excluding sub-tier suppliers has complications including lack of transparency in the supply chain and lack of company leverage. To overcome these obstacles, companies are pursuing a number of strategies including:

- Participation in industry collaborations
- Engagement in Public Policy
- Supply Chain Optimization

Individual companies can also take steps to shorten their supply chains by grouping smaller suppliers into cooperatives and clusters. This can also increase the revenue that small suppliers can generate.

Determining the Roles and Responsibilities within the Company

Supply chain sustainability strategies need to be integrated into business strategies within the company. One of the most persistent challenges to supply chain sustainability is an unresolved tension in many companies between supply management professionals' commercial objectives and their sustainability objectives and commitment.

Governance and Oversight

Executives should clearly articulate the company's vision and approach to supply chain sustainability. Written and verbal communication from executives will help align business managers' and supply management professionals' priorities within the importance of sustainability as a way of doing business.

Coordination among Business Managers

To support sustainability objectives and enable suppliers to meet expectations, alignment between company functions is required. Product design, business development, logistics, marketing and sales in a company can all impact supply chain sustainability. Therefore, it is important to get a clear picture of impacts and where they arise in company decision making.

Industry Collaboration and Multi Stakeholder Partnership

Industry collaboration and multi-stakeholder partnerships are important tools for advancing a company's supply

chain sustainability objectives, particularly for issues that are too challenging and complex to tackle alone. In addition, collaboration can increase the impact and overall efficiency of a company's supply chain sustainability efforts by extending its reach, pooling resources, reducing duplication and avoiding conflicting messages.

A range of stakeholder groups that could provide input on company's supply chain sustainability strategy, including national and local governments, workers' and employers' organizations, nongovernmental organizations, advocacy and activist organizations, academics and experts and community groups.

3.4. Measurement and Communication

Establishing Performance Goals

Since it is important to raise awareness and organize functions of the company towards sustainable supply chains it is equally important to set performance goals. Clear set of objectives will direct company and the individuals manage their actions in line with the given framework and achieve the targets. Setting performance goals is essential to evaluate company progress and the impact of the efforts. Setting performance goals can be summarized with the actions below:

- Process of Goal Setting
- Goals for Impact
- Goals for Supplier Performance
- Goals for Internal Performance
- Measuring Process & Practices

Communicating Progress and Reporting

Public reporting can be a strong tool to enhance sustainability and transparency with the supply chain. It also presents the management of environmental and social impacts and the assurance of good governance in the supply chain to both internal and external stakeholders.

4. Textile and Apparel Supply Chain Sustainability in Turkey

Integration of supply chain sustainability and steps that can be taken by companies in textile and apparel industry has been examined through four main phases; i) Commitment to Supply Chain Sustainability ii) Assessment of Business Scope iii) Definition and Implementation iv) Measurement and Communication.

Following part of the chapter tries to shed light on level of awareness in Turkey and efforts of companies – including big ones and SMEs – towards supply chain sustainability.

1. Commitment to Supply Chain Sustainability

Understanding Business Drivers

Many companies are driven by their corporate values and culture to address sustainability issues. Supply chain sustainability management practices that respond to multiple drivers of sustainability can maximize the value to business.

Findings of the research study show that SMEs in Turkey has strong company values but there is still need for raising awareness both on supply chain management and sustainability integration. Corporate social responsibility,

especially sustainability is more likely understood and implemented as collective social events involving company employees.

As it is stated earlier research study has been undertaken at different levels of supply chain. SMEs which are already operating as the main suppliers of international companies or buyers follow the code of conduct directed by the customer. They are aware of international standards and follow the requirements for their customers. Either SMEs which are the suppliers for macro scale companies or the ones who manufacture for internal markets have general information on leading companies and competitors in Turkey and their applications in detail.

Apart from companies working with big companies, there is limited information on corporate social responsibility and supply chain sustainability among micro scale SMEs which are mostly operating as sub-tier suppliers for big manufacturers. More engagement of NGOs and government institutions can create substantial impact through trainings and seminars by disseminating good practices examples. SMEs should be able to benchmark and understand;

- Human rights, labour, environment and government risks, opportunities, impacts and resulting supply chain focus,
- Internal structure for supply chain management,
- Codes of conduct and topics included,

The survey study reveals that most of the SMEs do not have their own code of conduct but apply the customers' (international buyers or macro scale national manufacturers). In terms of corporate social responsibility majority of SMEs follows national rules and regulations.

To this extend interviews both with SMEs, macro scale companies and international buyers presented an interesting picture. Apart from implementation of code of conduct there is almost no means or programmes including capacity building for the suppliers.

Having a clear vision statement reflecting supply chain management approach would be an effective tool for companies to evaluate their progress. Over the course of the survey study and interviews with the companies it is found that SMEs do not have an overall vision statement or a business plan integrated solid means for implementing corporate social responsibility.

Since 2002, the number of companies operating in textile and apparel sectors has been 56.041. Respectively, 81 and 86% of the companies in textile and apparel sector, employ less than 10 people [5]. Including the SMEs operating at project provinces, majority of companies are micro scale working without long term objectives or performance goals. It is therefore essential to design tailored support programmes with sectoral focus and different measures to be applied with specific objective in line with different stages of company growth.

On the other hand, interviews with big manufacturers showed that there are unique samples of business models not only covering principles of UN Global Compact but also playing vital role in global standards. Findings of the research show that international buyers and big manufacturers do not prefer to work directly with micro size SMEs due to lack of supply chain sustainability approach.

For many companies, a supplier code of conduct is natural extension of corporate values statements and seen as an affirmation of existing expectations rather than a new set of requirements. When developing codes of conduct, there are a number of international standards that should also be consulted and referenced [4].





Over the course of the survey study SMEs which are operating as suppliers were also reviewed. It is seen that majority follows the code of conduct provided by the customer. On the contrary, there are big manufacturing companies already created and publish their own code of conduct. Interviews with big companies reveal that code of conduct help companies in different ways including being a strong visibility tool for entering international markets.

In most cases for SMEs working with one or two international manufacturer or national large company feels commercial pressure and burdens to meet expectations. There is need for supporting SMEs in terms of company value chain development towards meeting expectations raised from international standards and policies.

2. Assessment of Business Scope

In most cases companies focus on the strategic suppliers which directly work with at the first or second link of the supply chain. However, supply chain sustainability approach requires a wider scope where supplier chain managers and strategic suppliers need to focus on also suppliers of the suppliers which is called as sub-tier suppliers.

Research study reveals that most of the SMEs in Turkey especially the micro scale ones are operating as the sub-tier suppliers without a solid monitoring body ensuring the global standards.

These results can be interpreted as follows: While assessing the strategic suppliers, the big manufacturers do not set solid mechanisms to assess the potential sub-tier suppliers, therefore do not substantially contribute much to avoid negative social and environmental implications at sub-tier supplier level.

Interviewed international buyers as well as the big companies stated that there are three main dimensions to sustain competitive position for textile and apparel suppliers; quality of the product, good price and just on time delivery. It won't be wrong to say that Turkey's advantageous proximity to EU markets at the same time puts pressure on companies to meet short delivery times which causes over time work and requires flexible production processes supported with sub-tier suppliers.

3. Definition and Implementation

The ultimate goal of engaging with suppliers is to develop a shared mindset about sustainability issues, to build supplier ownership of their sustainability vision, strategy and performance and to work more closely with suppliers with shared priorities. It is important to raise awareness and encourage suppliers to integrate and drive sustainability into their business through setting expectations, ongoing monitoring and partnering with suppliers to overcome barriers to improvement.

Results of the research study showed the level of supplier engagement changes upon size of the companies. Research study has involved different size of players through the entire textile and apparel supply chain. It has been identified that supply chain engagement has to be led by the big players and firstly starts at raising awareness among suppliers including SMEs.

Big companies which were visited over the course of the study are working at global standards and promoting sustainability as a business model. Big companies by setting their expectations and rules direct their suppliers towards implementing sustainability applications. However, in Turkey international buyers, big manufacturing companies or integrated manufacturers prefer to work with big suppliers already meeting their expectations instead of working with SMEs. It is therefore essential to increase CSR capacity of SMEs in Turkey. SMEs first have to enter national supply chains, global supply chains would follow.

As stated earlier in supply chain sustainability, potential risks cannot be avoided only by setting monitoring implementations for the first or second links of the supply chain, but enlarging the scope to sub-tier suppliers. To do this, companies can participate in industry collaborations, engage in public policy and optimize supply chains by grouping smaller suppliers into cooperatives and clusters.

In this regard, involvements of SMEs that are sub-tiers of big manufacturers are subject to leadership of big companies and government agencies promoting industry collaborations which can be realized through cluster development initiatives. In the light of this approach, various cluster development projects have been successfully

implemented with substantial involvement from the government, academy and private sector. GAP GIDEM Project and Fashion and Textile Cluster Project are two major projects completed successfully for Turkish Textile sector.

4. Measure and Communicate

Since it is important to raise awareness and organize functions of the company towards sustainable supply chains, it is equally important to set performance goals. Clear set of objectives will direct company and the individuals manage their actions in line with the given framework and achieve the targets. Setting performance goals is also essential to evaluate company progress and the impact of the efforts.

Research study shows that in Turkey performance goals and measurement tools being set and monitoring activities undertaken by the big companies through their code of conduct. Companies including SMEs know and aware of importance of supply chain sustainability however, it is difficult for an SME to set code of conduct or develop supply chain sustainability implementations without guidance of a bigger company or a specialist. There is need for setting common set of supply chain sustainability framework for Turkish Textile sector where manufacturing companies including SMEs can also be easily integrated.

Establishment of a common platform where players of supply chain sustainability can be joined and present their actions or/and code of conduct will help companies further communicate with stakeholders and international players.

5. Business Organisations

Business organizations and public institutions have been interviewed during the analysis study. Interviews also have been supported with the information gathered through desk research study. Questions were designed to understand activities and tools (projects, funding schemes etc.) being used for promoting industry collaboration and stakeholder partnership and CSR in textile and apparel sector.

NGOs

There are only two associations in Turkey dealing exclusively with Corporate Social Responsibility. These are the CSR Association of Turkey and the Turkish Business Council for Sustainable Development. All other foundations have the topic CSR/sustainability as a subordinated topic on their agenda.

Business Association for Sustainable Development represents Turkey at the international level as a member of the World Business Council for Sustainable Development. Business Association for sustainable development pays great attention to its relations with the official organizations and local administrations in communicating and adopting the Sustainable Development approach on individual and social basis. In this respect, the association supports all the activities of the official organizations and local administrations connected with the issue and will make a start in order to increase the leading role of the government.

CSR Association in Turkey was established in 2005 with the mission to create tools, resources and methodologies for business to behave socially responsible on social, economical and environmental issues so that business can have a positive impact on the development of the society. Their activities involve research, conferences and promotion of CSR [6].

There are many other NGOs that are effectively working on the related areas of CSR. Some of the most influential ones are TEDMER's (Turkey's Ethical Values Centre), Corporate Governance Association of Turkey (TKYD), Private Sector Volunteers Foundation, Turkish Society for Quality (KalDer).

Chambers

The Union of Chambers and Commodity Exchanges of Turkey (TOBB) is the highest legal entity in Turkey representing the private sector and has 364 members in the form of local chambers of commerce, industry, commerce and industry, maritime commerce and commodity exchanges.

During the analysis study local chambers contributed substantially to implementation of the study. Over the course of the analysis work it has been observed that chambers are open and willing to take part in CSR projects and will definitely promote related activities. However, the concept is relatively new for almost all actors in Turkey.

İTKİB

General Secretariat of Istanbul Textile and Apparel Exporter Associations (İTKİB) has been operating since 1986. İTKİB'S main functions can be described as assisting its members to improve their export performance, increasing market share of the textile, apparel, leather and carpet exports of Turkey in international markets and protecting the common interests of these sectors at national and international level. İTKİB has more than 16.000 member companies and with this large quantity of members and export figures, İTKİB is the biggest Exporters' Association in textile, apparel, leather and carpet business in Turkey.

Within the scope of its establishment and functions İTKİB is the leading organization for textile and apparel sector in Turkey and its services including export, productivity, training etc. are closely related with supply chain sustainability. İTKİB has vital role for increasing awareness on CSR and sustainability among manufacturers. One of the most important assets of İTKİB established under Istanbul Apparel Exporters' Association is the Textile and Ecological Tests and Research and Development Centre (EKOTEKS). EKOTEKS Laboratory has been maintaining its ever increasing services in Textile Sector since 1998, the date of its foundation, as an independent laboratory with international recognition.

The primary objective of its foundation is to make contributions to the export companies in increasing and maintaining the quality of the textile and apparel products to the desired level within shortest possible time and minimum cost. With its reliable results, the laboratory continues to be an active member of the protective chain, which aims to keep all the products and chemicals, which may prove harmful to human health and environment, under control.

The laboratory has been fulfilling its motto and contributing sustainability aims of manufacturers through making the right test in compliance with the international requirements within the shortest possible time and delivering it reliably to the client, which has been adopted as quality policy since the date of its foundation.

6. Conclusions and Recommendations

6.1. Conclusions

As one of the most important dimensions of corporate social responsibility, sustainability is widely understood and interpreted as sustaining long term company profit. However, sustainability is a broader concept involving all actors within the business environment. It is therefore essential to understand global supply chains and improve national and local actions and re-organize value chains, create new business models to meet international standards. Implementations at company level, regulations from government and support from business organizations should be considered in line with sector needs and able to create responses starting at sub-sector or segment level.

The changes occurring in different segments of textile and apparel industry have serious implications for suppliers

of the goods they place on their shelves. These changes require apparel manufacturers to improve supply chain sustainability approach as a business model. The manufacturers have to improve delivery time to market by shortening the time between an order, being placed by the retailer and its arrival in the store ready for display. Most importantly, the international competitive climate requires apparel manufacturers to provide services to the buyers, which are increasingly interested in the design and marketing end of the fashion industry and have less interest in manufacturing. This means apparel manufacturers and their suppliers are now expected to provide more value added services for their clients. Finally there is need for more engagement with the public institutions and business organizations to increase competitiveness textile and apparel industry.

Global conditions and implications of global changes in Turkey have clearly stated in Turkish Industrial Strategy Document; the first two industry branches that started to develop in Turkey were textile and apparel. These two sectors are critical for Turkey when criteria such as current installed capacity, export and employment are taken into account. Moreover, they are the largest manufacturing sectors in terms of production and employment. Since 2002, the number of companies operating in textile and apparel sectors has been 56.041. Turkish textile and apparel sector has maintained its competitiveness in international markets through cost advantage. However, competitiveness based on cost advantage becomes difficult in these sectors. To be able to compete with countries with low cost labour force will be possible with high-added value, quality and fashionable, trademarked and just-in-time production.

Our study in project provinces also provided insights on competitiveness of textile and apparel industry in Turkey in the light of supply chain sustainability framework. Through the project, it is aimed to understand linkages of SMEs in current supply chains, their challenges and ways to increase export through integrating more global supply chains and international markets.

Interviews with international buyers and big companies proved that international standards in textile apparel industry gain increasing importance day by day. Baseline standards of business conduct has to be met. In other words, supply chain sustainability can be described as an integrated approach which combines responses to impacts occur on the environment and society in the supply chain.

Semi structured interviews with SMEs in project provinces confirm that SMEs in Turkey are facing difficulties to access international markets and have limited access to regional or national markets. SMEs which are exporting indirectly as sub-tier suppliers mostly suffer from cost of adopting to their production environment and business processes to code of conduct applied by the customer (first or second link suppliers).

Different layers and linkages in textile and apparel chain were examined over the course of the research study. Challenges and needs within the context of supply chain sustainability can be summarized as follows:

1. Commitment to Supply Chain Sustainability

In Turkey, mainly big companies are operating as suppliers of developed markets through integrating company value chains to requirements of global supply chains. Big manufacturing companies in Turkey have their own code of conduct and their business models. Interviews with big suppliers of international markets showed that there is need for:

- To disseminate supply chain sustainability approach to SMEs, help them to understand expectations of big companies and global standards. It is not always applicable for big companies or international buyers to provide direct information to SMEs which they do not directly work with. There is need for an information platform where SMEs can access and learn customer expectations, prepare company code of conduct and take steps for supply chain management.
- Continuous improvement is a must not only for SMEs but also for big companies. It is essential to create tools

for promoting and supporting SMEs which have linkages with big manufacturers specifically located in competitive regions having clusters, networks and/or agglomerations.

- Big manufacturers in Turkey have their own code of conduct and apart from theirs they apply the international brands code of conduct. In SMEs, applications are limited with the customers' requests and similarly subject to control mechanisms of the customers. To increase market share of SMEs and facilitate their integration to international supply chains, there is need for establishing baseline standards at nationwide. This will help SMEs to understand external landscape and expectations of stakeholders and customers.
- Supply chain sustainability needs integrated management approach where internal functions (company value chain) re-organized in parallel to changes and needs of national or global supply chains. In Turkey, there is a need to increase awareness on "supply chain management" among managers and executives of the SMEs.
- It is seen that in Turkey, SMEs as suppliers of big manufacturers work with one or two customers and invest to adopt their production processes in line with the customer expectations which brings heavy cost pressure. There is need to support SMEs to adopt and sustain their structural re-organizations towards sustainable supply chains.

2. Assessment of Business Scope

Likewise in many other countries, big manufacturers in Turkey focus on their critical suppliers which they directly work at the first or second link of the supply chain. However, environmental and social requirements and requirement of reducing risks at entire supply chain gains much more importance for the international buyers. Therefore SMEs operating as sub-tier suppliers should be subject to monitoring and assessment in supply chain management. Within this scope;

- It is important to establish business linkages not only with strategic actors of the supply chain but also with SMEs operating as sub-tier suppliers. There is a need for training and activities to raise awareness and to improve capabilities of SMEs.
- There is need for capacity and infrastructure development through collaborative approach. An individual SME may not be able to adopt production processes for a better supply chain management. However, clusters and cluster approach can provide substantial power for SMEs to shift their competitive position regionally, nationally and at international markets.
- Together with substantial improvements in labour standards, increased access to industrialized-country markets for textiles and apparel produced by developing countries is essential for poverty alleviation.

3. Definition and Implementation

In order to increase competitiveness in textile and apparel industry, there is a need for developing shared vision and act towards achieving it. Interviews showed that there are limited efforts from big manufacturing companies towards their suppliers to train and improve their capacity. Training programmes and supplier development programmes are not common in textile and apparel industry. There is a need to improve "shared value" to increase competitiveness for all engaged actors through the supply chain.

- There is a need for more collaborative actions which should be lead by the big manufacturers towards SMEs, need for programmes to engage suppliers and create a shared mindset about sustainability issues.
- Industry collaboration is another very important factor for supply chain sustainability. The study shows that the level of collaboration between sectoral organizations local governments and business organizations should be increased.

4. Measurement and Communication

As stated earlier, setting performance goals and according to these performance goals, self assessment of companies and visibility have vital importance for entering new markets. Regardless of the scale of the company assessment and performance measurement through internationally accepted tools and standards and implementations certified by international organizations help companies to enter international markets. It is known that in Turkey,

there are more than 40.000 companies operating in textile and apparel sector. However, only three¹ textile and apparel companies have SA 8000 Certificate. Similar to this, Yeşim Textile is the only textile company in UN Global Compact.

- There is lack of awareness of performance setting and on performance monitoring tools (software) and platforms,
- There is lack of awareness and information on international policies, standards and their importance for increasing competitiveness,
- CSR and supply chain sustainability understanding of SMEs is mostly as improving production processes, providing information on product and labelling, environmental applications or social responsibility where society takes part in company events.
- There is a need for increasing company skills for writing code of conduct and using as tools to communicate internationally.

6.2. Recommendations

6.2.1. Operational Recommendations for Companies

Review Business Risks

- Big companies working with suppliers (SMEs and/or big manufacturers) have to control and review whether the supplier company covers the areas of the Global Compact Principles.
- SMEs knowing that Global Compact Principles gains substantial importance in international markets have to adopt relevant applications and collaborate with other players to reduce risks.

Realize Efficiencies

- Review your company value chain, product process and input conditions to realize areas that company can result with cost efficiencies. Re-organizing processes or using tools such as lean manufacturing may result with success to apply Global Compact Principles and bring increase in company profits.

Developing value-added services and more sustainable products

- The profit margins for apparel manufacturers are very slim. According to OECD data for an apparel manufacturing firm that only engages in apparel assembly operations (i.e. sewing pieces into a finished apparel product) starting operations in year 0 cannot expect to become profitable until four years later. Even after ten years, profits will only be about 1.1% of total annual sales. Apparel manufacturers can begin providing more value-added services, allowing themselves to set higher prices and gain a larger share of the total revenue along the apparel industry value chain.

Review External Factors, understand competitive companies

- Do not focus only your internal problems and processes of your company. Focus on competitors and leader companies and understand their business approach. Benchmark your company with the leading companies and understand in which areas they create business value.

Collaborate with Stakeholders

- Collaborate and communicate with local governmental agencies, NGOs and business organizations and try to see whether they can provide specific sectoral information from international markets which can help your company to evaluate conditions against players in regional, national and international markets.
- Inquire national and international financial mechanisms to access finance or support where you can develop capacity and infrastructure for supply chain sustainability.
- Create joint standards and focused on sector needs.

1. As of 2010, Topkapı İplik, yeşim tekstil and SMS Konfeksiyon have SA 8000 certificate in Turkey.

Establish a business strategy and a company visions reflecting your CSR approach

- Reconsider your business strategy and vision. Integrate supply chain sustainability approach into your vision and evaluate your performance towards achieving this vision. Share your vision with company members, workers and employees. Create leadership and ownership to implement supply chain management covering Global Impact Principles.

Start developing code of conduct your company

- Your company may follow principles in Global Compact through implementing code of conduct provided by your customer. However, developing your own code of conduct can further establish trust and helps your company to enter new markets. Companies can benefit from international standards such as Global Compact and SAI.

Re-consider your business scope

- Review the players in the supply chain and reduce your risks which can be caused by sub-tier suppliers. Apply supplier development programmes and disseminate your expectations through collaborative approach.
- There is a need for companies to further understand global trends and supply chain management, international policies and standards and act in collaboration with the suppliers to meet market expectations including improving systems also for quick delivery.

Establish performance goals, measure them and communicate more

- Set clear objectives which can be direct your company and managers to organize their actions.
- Set goals for impact, supplier performance and internal performance.
- Measure your company processes and practices, collect data by using software programmes such as Sedex, EcoVadis and etc.
- Prepare reports and benefit from your reports through publishing.

6.2.2. Recommendations for Business Organizations

Collaboration and engagement with stakeholders is one of the most important dimensions of supply chain sustainability. Rapid changes in global supply chains put pressure on companies to respond requirements including Global Compact Principles. In this environment, there are important roles for business organisations;

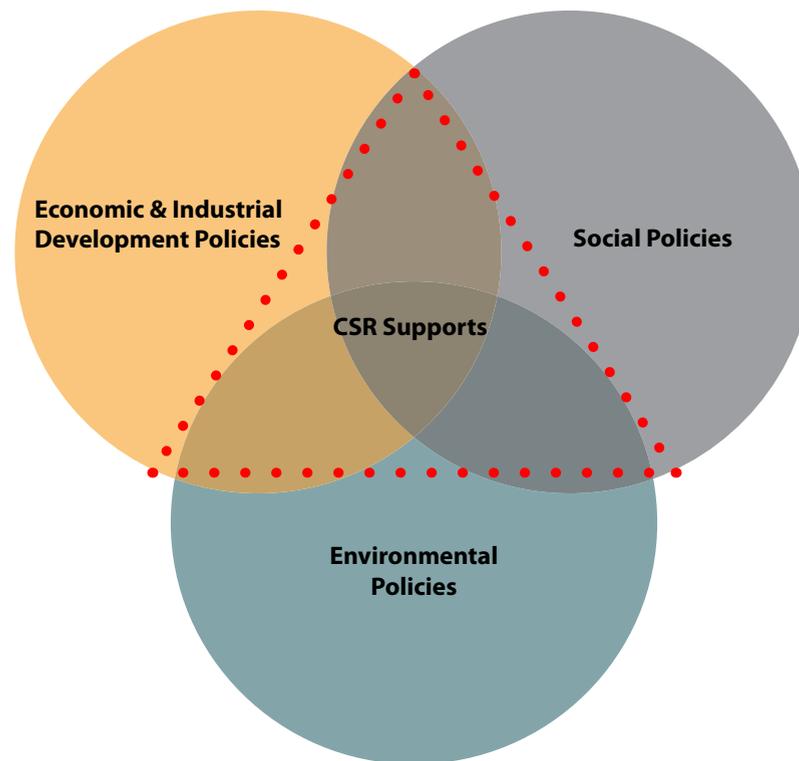
- Disseminate information and increase awareness on international standards,
- Preparation of "Supply Chain Sustainability Toolkit" for SMEs as a practical guideline
- Provide information on global trends, best practices in textile and apparel industry
- Provide support for developing code of conduct for companies,
- Focus on regional competitiveness and prepare sub-sector analysis and strategies for textile and apparel industry,
- Convey policy messages from sector to policy makers on specific and regional needs.

6.2.3. Policy Recommendations

As stated in Industrial Strategy Document; it is necessary for the textile and apparel sector in Turkey to perform the structural changes made in the end of twentieth century in EU and move to the "market maker" position from the position of "supplier country".

Corporate Social Responsibility specifically, supply chain sustainability covering environmental and social changes are now taking place in horizontal policy areas. Potential policy recommendations can be positioned as an intersection of different policies. Supply chain sustainability recommendations can be considered with the horizontal policy areas which can be further positioned within the Textile and Apparel Strategy of Turkey.

Figure 1: CSR; intersection of different policy domains



Increasing Commitment to Supply Chain Sustainability

- Formulating national code of conduct and set of national standards for industries subject to international supply chains.

Assessment of Business Scope; Creating “Regions of Excellence in Textile and Apparel Industry”

- Promoting supply chain sustainability management, innovation and design with specific focus given to niche areas of the textile and apparel industry. Support strategic specialization, networking and new start ups through project based incentives.
 - Strategy Development for Developing Specialization in Sub-Sectors
 - R&D and Innovation Development
 - Design and Technology Development
 - Network and Cluster Development

Definition and Implementation

- Focusing on supply chain efficiency by facilitating and strengthening linkages between inter-related firms. Support for the implementation of technological solutions to supply chain management and contribute to infrastructure improvements that promote supply chain linkages.

- Developing Infrastructure and Capacity Building for Micro Scale SMEs and start ups towards supply chain engagement.
- Support of education and training where public higher education system, specifically programs that benefit the textile and apparel industry, should be maintained and strengthened.

Measurement and Communication

- Supporting companies for developing performance goals, measuring systems and preparation of code of conduct and annual reports on their efforts and progress in achieving compliance with Global Compact Principles.

Table 6 : Policy Areas that Align with the Global Compact Principles [5]

Sample Policy Areas that Align with the Global Compact Principles:	Potential Sources to Reference
<p>Human Rights and Labour</p> <ol style="list-style-type: none"> 1. Forced Labour 2. Child Labour 3. Working Hours 4. Wages and Benefits 5. Human Treatment 6. Non-Discrimination 7. Freedom of Association and Collective Bargaining 8. Occupational Safety 9. Emergency Preparedness 10. Occupational Injury and Illness 11. Fire Safety 12. Industrial Hygiene 13. Physically Demanding Work 14. Machine Safeguarding 	<p>United Nations Global Compact</p> <p>Universal Declaration of Human Rights</p> <p>Protect, Respect and Remedy: A Framework for Human Rights</p> <p>ILO International Labour Standards</p> <p>ILO Code of Practice in Safety and Health</p> <p>OECD Guidelines for Multinational Enterprises</p> <p>The Rio Declaration on Environment and Development</p> <p>United Nations Convention Against Corruption</p> <p>ISO 14001</p> <p>SA 8000</p> <p>OHSAS 18001</p>
<p>Environment</p> <ol style="list-style-type: none"> 15. Material Toxicity and Chemicals 16. Raw Material Use 17. Recyclability and End of Life Products 18. Greenhouse Gas Emissions 19. Energy Use 20. Water Use And Waste Treatment 21. Air Pollution 22. Biodiversity 	
<p>Anti-Corruption</p> <ol style="list-style-type: none"> 23. Conflict of Interest 24. Gifts, Meals and Entertainment 25. Bribery and Kickbacks 26. Accounting and Business Records 27. Protecting Information 28. Reporting Misconduct 	





Chapter 3 CSR and Environment

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CSR and Environment

Prepared by UNIDO

Environment is one of the important pillars of corporate social responsibility approach. In other words environmental management is an integral part of any CSR program in a company. The rationale behind is the fact that “a commitment to corporate social responsibility is always linked to commitment to pollution prevention, as every company causes certain environmental impacts that compromise the society”. Corporate environmental management is about finding a balance between economic and environmental protection issues [5]. In this regard, economic issues, such as productivity, lower operational costs, or increased profits are to be tackled together with the pollution prevention and resource efficiency concepts.

This approach brings about the concept of cleaner production, which is a preventive strategy to reduce environmental pollution and simultaneously reduce the consumption of resources. Its core focus is on processes and on reducing all forms of losses [5].

Cleaner production approach aims to prevent/ minimize the pollution before arising, contrary to the common “pollution control” approach. Pollution control approaches accept the production and design phases as unchangeable factors; therefore pollution is seen as an inevitable result of these phases and solutions are sought after pollution occurs [11]. Consequently, these approaches require additional costs for the institutions by focusing on the waste treatment facilities.

On the other hand, cleaner production approaches accept the pollution as a result of deficiencies and inefficiencies during design, raw material utilization and production processes; and aim to find solution by providing necessary developments during these processes [13, 14, 15, and 16]. Cleaner production has a close relation with sustainability besides development of new product, process, system and services.

There are different methods to be applied in cleaner production applications that are listed below:

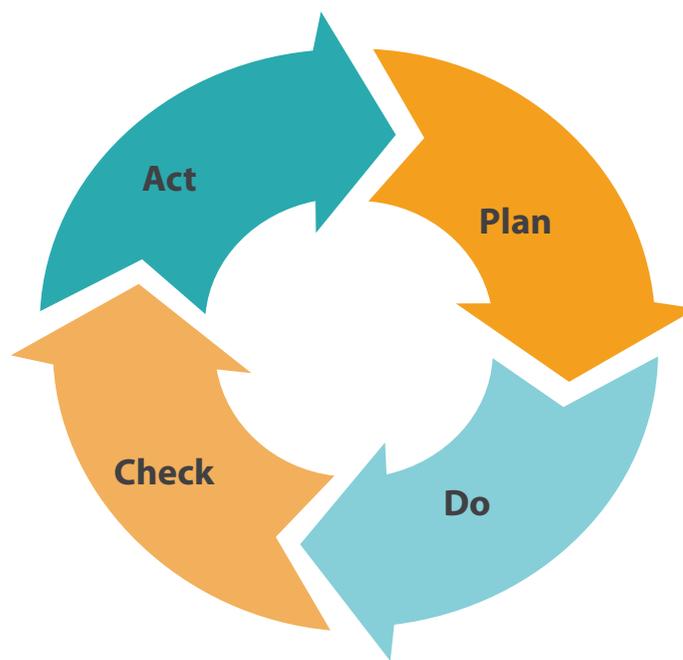
- Simple (basic) management precautions
- Technology changes
- Improvement/ modifications in production processes
- Increase in process efficiency
- Replacement of raw-materials and chemicals in use with more “environmentally friendly” ones
- Equipment changes
- Minimization of losses by controlling raw-material/ product inventory
- Reuse of waste and by-products in the production process
- Changes in product and design

In order to sustain cleaner production applications in a company, the involvement and commitment of the entire organization, including workers and management, are required. This can be formalized in an Environmental Management System (EMS). Environmental Management is that part of the overall management system, which deals with organization, structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving and reviewing an environmental program/policy [5].

An EMS is a framework that helps a company to achieve its environmental goals through consistent control of its operations. The assumption is that this increased control will improve the environmental performance of the company [3]. The EMS itself does not dictate a level of environmental performance that must be achieved; each company’s EMS is tailored to the company’s business and goals.

In order to improve environmental management, a company needs to focus not only on what is happening but also on why it is happening. Over time, the systematic identification and correction of system deficiencies leads to better environmental (and overall organizational) performance. Most EMS models (including the ISO 14001 standard) are built on the “Plan, Do, Check, Act” model (Figure 3), which is based on the concept of continuous improvement. Since textile industry is one of the priority sectors with significant environmental issues particularly associated with wet processes, application of cleaner production applications in a systematic and sustainable manner is of utmost importance.

Figure 3: “Plan, Do, Check, Act” model of EPA [5]



1. Environmental Issues Associated with the Textile Industry

Environmental issues, an integral part of CSR concept, associated with the textile industry starts with the use of pesticides during the cultivation of natural fibres or the emissions during the production of synthetic fibres. From that moment on, a number of processes are applied, using thousands of different chemicals, to process the fibres and to reach the final stage of textile end product. Environmental problems associated with the textile industry are typically those associated with water pollution caused by the discharge of untreated effluents. Liquid wastes arising from washing operations contain a substantial organic and suspended pollution load, such as fibres and grease. Effluents are generally hot, alkaline, strong smelling and coloured by chemicals used in dyeing processes. Some of the chemicals discharged are toxic and can lower the dissolved oxygen of receiving waters, threaten aquatic life and damage general water quality downstream [11]. Other environmental issues now considered equally important and relevant to the textile industry include emissions, notably Volatile Organic Compounds (VOCs) and excessive noise or odour, as well as workspace safety.

The textile and apparel industry comprises a large number of mechanical and chemical processes. Each process uses its own groups of chemicals. Each process, therefore, has a different impact on the environment. The processes from the environmental point of view can be divided into the following categories [11]:

Fibre production

In the fibre production the environmental burden depends on whether it is natural or synthetic produced. Main environmental problems of synthetic fibres, like polyester, polyacryl and polyurethane are the use of energy during manufacturing and the production of toxic by-products. Natural fibre, mainly cotton, is grown with the use of large amounts of pesticides and artificial fertilizers. This has a large impact on the water quality, as most of these chemicals are toxic, persistent and bio-accumulative.

Spinning

During the spinning of fibres, dust and other particles are dispersed into the air. Dust can cause respiratory problems. In these cases workers can be protected with shields and by equipping the working space with a good ventilation system.

Washing/ Scouring

This process removes natural and acquired impurities from cotton, linen and wool fibres and fabrics. Agents used in the scouring process are detergents, soaps, alkalis, anti-static compounds, wetting agents, foamers, defoamers, complexing agents and lubricants. Synthetic fabrics are only lightly scoured to remove sizes. Scouring is sometimes carried out by dry cleaning, using solvents. The main solvents in dry cleaning are chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). Trichloroethylene is carcinogenic and 1,1,1-trichloroethane, CFCs and HCFCs known to be depleting the ozone layer.

Sizing/ Desizing

Before weaving, the yarn is strengthened by sizes. Sizes can either be starch-based or synthetic. Common synthetic sizes are acrylates, polyvinylalcohol (PVA) and carboxymethylcellulose (CMC). From an environmental point of view, CMC is the preferred of these three compounds. After weaving the starch is removed from the textiles; this is also known as desizing. This can be done by means of enzymes, by oxidation substances or by water-soluble sizing substances. An oxidation system instead of an enzyme system has generally lower impact on the environment. In principle, the use of water-soluble sizings (like PVA and CMC) is the least environmentally hazardous.

Weaving and Knitting

Most textiles are made by weaving or knitting the fibres. Sometimes the fibres are dyed before the process of weaving or knitting, sometimes after. Weaving and knitting are dry operations, but cooling and humidifying water are used in a mill and represents a substantial portion of the total water usage. Weaving and knitting makes a lot of noise and dust causes unsanitary working conditions unless proper measures are taken.

Bleaching

Fabrics are often whitened by bleaching prior to dyeing or printing. Hydrogen peroxide, sodium chlorite and sodium hypochlorite are the most common bleaching agents. Other bleaching agents used are peracetic acid and sodium perborate. Auxiliary chemicals such as surfactants, optical brighteners, antifoam and wetting agents are also used. Fabrics made from synthetic fibres often do not need to be bleached, and regenerated cellulose fabrics are more lightly bleached than cotton. Blends of synthetic and cotton fibres are commonly bleached. Wool is often bleached by using hydrogen peroxide or bisulphite. From an environmental point of view, the negative aspects of the bleaching are the use of water, energy and chemicals. Especially chlorine compounds have a bad effect on the environment.

Mercerizing

After the bleaching, the bleaching chemical has to be removed before the dye is applied; otherwise, the bleach and dye react with each other. The traditional method of removing the bleach is by rinsing the fabric in water a number of times, which uses a lot of water. Mercerizing is mostly done with caustic soda (NaOH) that will get into the waste stream.

Dyeing/ Printing

Textile dyeing/ printing has traditionally generated large volumes of waste and been a large consumer of energy. Dyeing/ printing processes require the input of a wide range of chemicals and auxiliary materials, if not contained in the final product, become waste causing treatment and disposal problems. Washings from dyeing/ printing and rinsing operations may produce hot, alkaline, highly saline, odorous and highly coloured effluent [17].

Finishing

Finishing is the treatment of fabrics in order to achieve special characteristics, for example water, flame or wrinkle resistance. Variety of finishing chemicals are used for these purposes. Halogenated compounds such as bromated diphenylethers (PBDEs) and compounds containing heavy metals used as flame-retardants are very problematic from an environmental point of view. PBDEs are extremely persistent and phosphor-based flame-retardants cannot be degraded by conventional biological treatment. Inorganic salts and phosphonates are better alternatives, although not entirely satisfactory from the quality point of view. Biocides such as polychlorinated phenols (PCP), metallic salts (arsenic, zinc, copper or mercury), dichlorodiphenyldichloroethylene (DDE) and dichloro-diphenyltrichloroethane (DDT) are used as preservatives on exported fabrics to prevent mildew and mould. All these substances are highly toxic.

Garment Production and Use

At the garment production the main environmental problem is the cutting losses, package materials and the use of notions, such as buttons and zippers, which can contain heavy metals. When the clothes are used the chemicals and pesticides can turn up in the water during washing. When clothes are incinerated after disposal these chemicals will be released as well.

In order to draw a general picture of the environmental issues associated with the textile industry, a distinction should be made between dry processes (fibre production, spinning, knitting, weaving, cutting and final garment production) and wet processes (washing, scouring, sizing, desizing, bleaching, mercerizing, dyeing, printing and finishing). From the environmental point of view, wet processes are considerably more important than dry processes, owing to the fact that water, chemicals (paints, enzymes, etc.), energy and auxiliary materials are extensively used in wet processing operations. The dominance of wet processing is so obvious within the whole textile value chain that environmental technologies, related regulations, standards and environmental strategies/projects are developed focusing mainly on wet processes. That is why a closer look at the wet processing plants has been necessary.

2. Analysis of Environmental Situation in Textile Industry

2.1. Background Information on Environmental Issues in Turkish Textile Industry

In Turkey, textile industry has quite fragmented and complex production system among the processes such as the production of simple fibre, yarn, fabric production for garment, industrial goods, and home furnishing. Through the various production processes, high amount and various kinds of chemicals, raw materials, energy, and water are used. Consequently, relatively high amount of waste emission to many mediums of environment occurs and the effects are considerably harmful to environment as well as human health from several aspects.

For the case of Turkey, there is not sufficient data available concerning environmental aspects and impacts of textile industry; however, it is certain that there are vast quantities of water, energy, and resource consumption. Especially

the high amount of water consumption, given as 350.000 m³/day, is quite a striking issue associated with the industry. The official data indicates a 1–1,5% share of water consumption within the resource inputs; however, there is widespread illegal use of ground water supplied by wells that are constructed by the operators without permits. As energy sources, commonly electricity, natural gas, fuel oil, and liquefied petroleum gas (LPG) are used. However, the electricity usage is widespread among textile manufactures despite its much higher cost compared to European countries [23].

a) Energy Consumption

Energy consumption is very important for the textile industry in Turkey. Energy usage in the textile industry in Turkey is inefficient, and energy consumption has been growing very rapidly due to population growth, rapid urbanization and industrial development. For future planning, it is important to know the current specific energy consumption (energy consumption/ production) and the energy intensity (energy consumption/ cost of energy) in order to estimate future energy consumption for the textile sector.

In Turkey, the textile industry has been reported as the third most energy intensive sector after iron/steel and cement industries. The 8th Five Year Development Plan of Turkey also highlights that the cost of energy in textile processing is quite high. Table 1 indicates the industrial sub-sectoral energy consumption and the share of the cost of energy production of Turkey. As it can be seen in the table, the iron and steel sectors take a large share (about 35%) of this consumption while textile and woven industry take 5,9% of the total consumption. When the cost of the energy is investigated, this share breaks down into 48% in the iron and steel sector, 32,5% in the ceramics industry, 55% in the cement industry and 8–10% for the textile and woven industry.

Turkish textile industry is one of the oldest and biggest industrial sectors in Turkey. Since this industry is energy-intensive, it is very important to optimize its energy consumption and hence energy conservation. Industrial processes of textile use large amounts of fuel and electricity. It is very important to minimize the energy cost and energy consumption for the textile industry to reduce the production cost. Increasing global competition puts high demands on Turkish textile companies, one of which is an increased demand for cost efficiency. One important factor in reaching higher cost efficiency is to reduce energy cost and to use energy efficiently [24].

Table 1: Industrial sub-sector energy consumption and the share of the cost of energy production of Turkey [24]

Industry	Total energy (toe)	Rate of industrial consumption (%)	Rate of energy in total cost (%)
Iron/ steel	4.863.328	34,9	11,5 ve 48
Cement	2.736.165	19,7	55
Textile and woven	822.305	5,9	8 -10
Chemical fertilizer	718.962	5,2	40
Petro chemical	606.423	4,6	28,5
Ceramics	627.789	4,5	32,5
Others	3.548.476	25,2	-
Total	13.923.448	100	-

According to General Directorate of Renewable Energy (GDRE), among all operational cost items, energy cost is in the 3rd place just after human resources cost and depreciation cost. It is also emphasized by (GDRE) that most energy intensive production processes are wet processing operations, particularly dyeing and finishing applications. These processes are known to be of high potentials in terms of energy efficiency implementations since more than 85% of the energy is used for heating purposes in these processes.

For the assessment of the energy efficiency performance of manufacturing companies including textile and garment producers, energy performance indicators are commonly used. As part of energy efficiency benchmarking studies conducted by (GDRE), more than 100 textile wet processing companies (e.g.dyeing /finishing) are monitored by means of energy performance indicators. The monitoring practices are carried out by recording specific electricity consumption (kWh/kg) and specific heat consumption (MCal/ton) data. The benchmarking studies carried out between 2007 and 2009 indicated that specific electricity and heat consumptions were increased in 60% of 102 textile companies.

Another energy performance indicator is the energy intensity (kep/€00), energy consumption per unit added-value, which is used for assessing the performance of textile companies. According to 2009 figures developed by (GDRE), energy intensity of Turkish textile and garment industry is around 0.11 kep/€00 while in other European Union countries much lower values are calculated. In Italian textile and garment sector 0.05 and 0.03 kep/€00 are determined for heat and electricity consumption respectively while the corresponding values are 0.06 and 0.03 kep/€00 for United Kingdom. This comparison indicates that in Turkish textile industry much higher amounts of energy is used for generating the same added-value as the textile industries in European Union countries.

b) Water and Wastewater Management

In Turkey, textile industry has always been regarded as a water intensive sector which relies on ground water. One of the main environmental concerns is therefore regarding the amount of water discharged and the chemical load it carries. According to Turkish Statistical Institute reports for the year 2008, within the whole Turkish manufacturing sector, textile and garment industry is responsible for 15% of water consumption, which makes the 2nd largest industrial water consumer. In 2008, textile and garment industry consumed 191.5 million m³ of water [25].

Since textile industry has been matured into an important sector in terms of production capacity, water pollution and scarcity has become a major problem. As an example, Ergene Basin, especially in Lüleburgaz, Çorlu and Çerkezköy line, textile-weighted industrial structuring has been increased throughout the years. It causes changes in water quality and increases territorial reduction of ground water level in aquifer fields. Ergene River exposed to wastewater discharge heavily from Çerkezköy. Wastewaters that occur as a result of rapid industrialization in Basin are generally discharged to the nearest water courses [26].

As this sector of the economy have grown to an important level, a considerable demand is placed on the water supply of the country; at the same time, more and more pollutants have entered into the environment as the production of textile goods increased [27]. Owing to this fact, controlling water consumption is one of the key implementations for optimizing water consumption. Additionally, reducing water consumption by improved working practices such as "well documented production procedures and training of the staff" and by reducing liquor ratio in dyeing process is quite important. Improving washing efficiency in both batch and continuous dyeing is another way to reduce water consumption. Moreover, reuse of water is the third method to optimize water consumption in textile mills. Another method to optimize water consumption is the application of counter-current washing systems[28].

c) Solid Waste Management

Textile and garment industry, having a share of 4% is in the 5th place in terms of generated solid waste amounts within Turkish manufacturing sector [29]. In 2008, 545.501 tons of solid waste was generated by the textile and garment industry. Solid wastes that are generated in textile factories can be classified under two categories; one is non-hazardous wastes and the other is hazardous wastes. Faulty/ rejected products, packaging wastes and other textile wastes that are generated as a result of garment production are the examples for non-hazardous wastes. Supply products like chemical substances and paint containers, batteries, waste oil, purifying sludge, accumulators and contaminated plastics can be given as examples for hazardous wastes [30].

In textile companies solid waste management is carried out according to national environmental rules and regulations, including Solid Waste Control Regulation. Hazardous and non-hazardous wastes are generally collected and stored separately. Since hazardous wastes are subject to stricter standards and regulations their management practices are different from non-hazardous wastes. Since transport and disposal of hazardous wastes have to be carried out by licensed companies, textile companies contract with licensed companies. On the other hand remaining non-hazardous wastes are either transferred to recycling facilities or sent to landfills.

Solid wastes are to be separated in the process they are generated, which is named as source separation. For example packaging wastes like barrels, plastics and tubes are prevented from contamination of chemicals and other consumables which may be hazardous. In general metals, glass, paper, plastics and cardboards are classified and collected separately in textile companies.

2.2. Micro Scale Analysis: Textile Producer Companies (SMEs)

The aim of this study was to analyze the current environmental situation in Turkish textile industry with a special focus on the target region within the context of CSR approach. The study was based on the data collection and analyses related to environmental and cleaner production issues for the textile industry by means of literature review as well as a comprehensive survey developed and implemented accordingly. In this regard, a three scale analysis (micro, meso and macro) taking into account the SMEs capacities and awareness, standards and demands of large enterprises as well as the existing legislative framework, strategies, supports and incentives was conducted.

Based on the questions (and the themes) which constitute the questionnaire, environmental situations/ performances of the companies were assessed under six areas:

1. General environmental policies and management practices
2. Perspectives on the environmental legislations
3. General waste management practices
4. Selection of production processes, systems and technologies for resource saving
5. Monitoring and management of resources/ wastes for minimization at source
6. Effect of markets and customers on the environmental performance

Based on the answers, companies were graded between 0–100% for each of the questions. Level of environmental performance/competence of the company for associated area was determined by taking the average of the grades of questions. By doing so, companies were ranked/ scored as follows:

Level 4 (Companies with 75–100% grade-level):

Companies are at desired level in terms of environmental competence in the area of concern. Management practices and systems are well-established. Related activities are carried out systematically as it should be.

Level 3 (Companies with 50–75% grade-level):

Companies have some/ partial efforts to increase their environmental competence level in the area of concern. However management practices and systems should be revised to achieve the desired level. Some activities are carried out but need to be scaled-up to reach the desired level.

Level 2 (Companies with 25–50% grade-level):

Companies are well-below the desired level in terms of environmental competence in the area of concern. Management practices and systems are not established. Related activities should be re-structured to increase the level of environmental competence.

Level 1(Companies with 0–25% grade-level):

Companies are having serious issues to show even a low potential for desired level of environmental competence in the area of concern. No management practices or systems are in place. Urgent actions/ activities need to be developed to increase the level of environmental competence.

a) General Environmental Policies and Management Practices: Comparing all companies with wet processing plants

General environmental policies and management approaches are established only in around 36% of textile companies covered in the survey. These companies are categorized as Level 4 companies. However there are still 63% of companies (Level 1, 2 and 3), which need to integrate environmental concerns into their management perspectives. Most of the companies do not require or attempt to receive voluntary standards such as ISO 14001. Priority of top management is generally given to short-term sustainability of the company by complying with the requirements of national legislations and customers. Energy management systems/energy managers or responsible persons as well as environmental engineers/responsible persons are not common in the companies.

Wet processing companies in the target region are slightly better in terms of general environmental policies and management practices than the ones without wet processing. In other words wet processing companies are more or less aware of their environmental liabilities since they are subject to most of the rules and regulations due to their high energy and water consumption not to mention resultant wastewater. However a big difference is observed when the wet processing companies in the target region are compared with wet processing companies from other regions in terms of general environmental policies and management practices. General environmental policies are adopted in more than 65% of companies from other regions. However the related figure for target region companies is 40%. In other words, 60% of wet processing companies operational in the target region lack even a vision and policy on general environmental concerns.

b) Perspectives on the Environmental Legislations

According to analyses only 33% of textile companies are at desired level in terms of their perspectives on environmental legislations. Meanwhile 64% of companies indicated only national norms are taken into consideration in their environmental investments. Although companies are aware of their liabilities and taking relevant precautions, their response to national regulations is still “reactive”. In other words, companies are relatively good in complying with national regulations when they are forced; however they are not taking “proactive” measures to adapt to potential regulations (e.g. EU harmonization process). Only 46% of all companies highlighted that they are following EU harmonization process of Turkey with new legislative developments.

Due to the huge difference between environmental issues associated with wet and dry processes, national environmental norms and standards that regulate them are different. It is obvious that higher water, energy and chemical consumption as well as necessity of wastewater treatment put considerably high pressure on wet processing companies. This situation makes it technically and economically more difficult for wet processing companies to comply with the regulations when compared to the rest of the companies. Although 33% of all companies are at desired

level (Level 4), only 24% of wet processing companies located in target region are at desired level.

Although about 76% of wet processing companies from target region stated that their environmental investments are in line with national environmental legislations, only 30% of them are following new legislative developments through EU harmonization process of Turkey. In addition to that, 47% of wet processing companies are having issues with complying with national legislations from time to time. Taking all these discussions into account, only 22% of companies are at desired level in terms of environmental legislations. On the other hand more than 70% of wet processing companies from other regions are at desired level, since 92% of these companies invest in environmental systems/technologies to comply with national regulations. Apart from that 78% of other region companies are following potential EU legislations having a “proactive” approach.

c) General Waste Management

In textile companies, general waste management practices such as wastewater treatment, solid waste disposal, hazardous waste management, are carried out according to legislative requirements. Private environmental consultant companies also provide external professional support. In terms of general waste management practices 54% of all companies in the target region are at desired level. A high percentage (82%) of all companies has well-established systems for solid waste management. In these companies solid wastes are disposed off after treatment or sent to the related plants/sites for disposal.

Wet processing companies in the region are even better in terms of general waste management practices. For instance, 93% of target region companies solved their wastewater problems whether by treating it via in-plant wastewater treatment facilities or discharging it into wastewater collection pipelines ending-up in central wastewater treatment plants of Organized Industrial Zones. Solid waste management systems are established in 79% of the companies. On the other hand, only 52% of the companies are carrying out activities to recycle/reuse their solid wastes and/or wastewater. Combining this data it can be postulated that majority (60%) of target region companies are at desired level, (relatively close to the percentages of companies from other regions of Turkey (81%).

d) Selection of Cleaner Production Processes/ Technologies During New Investments

When the selection of resource efficient and cleaner production processes/technologies during new investments is of concern, only 19% of companies are at desired level. Remaining companies have still problems with adapting/ implementing the technologies due to various reasons including low level of technical knowledge, financial issues and gaps in environmental regulations. 56% of the companies in the target region are grouped as “Level 3”. This means that most of the companies are “relatively close to” desired level in terms of selection of resource efficient and cleaner production processes/technologies during new investments. Environmental investments, which increase the production efficiency and provide economic savings, are planned/and implemented only when short-term economical return is expected. 66% of the companies are after such kind of investments as long as they have short payback periods.

When wet processing companies in the target region are analyzed a similar situation to other companies from target region is observed. Whether they have wet processing units in their production processes or not, target region companies are facing similar problems to select resource efficient and cleaner production processes/technologies during realization of new investments. However during the selection of raw materials and chemicals (dyes, enzymes, etc.), which affect the quality of product directly, those having less environmental impacts are preferred in 76% of wet processing companies in the region. This means that, although environmentally friendly raw materials, technologies and processes are declared to be “expensive” by 53% of these companies, customer demands and internationally acceptable standards for products limit the use of environmentally harmful substances favouring cleaner production.

Maybe the biggest difference between the companies from other region of Turkey is in this area. Of the wet processing companies from other regions only 14% see environmentally friendly raw materials, technologies, processes as burden associated with their high cost. During the selection of raw materials, auxiliary products and chemicals those having less environmental impacts are preferred in 89% of other region companies. This situation is a direct result of purchasing power of other companies as well as their vision integrating competitiveness and environmental issues. As a result of this picture for the wet processing companies, 75% of other region companies are at desired level in this area while only 20% of the target region companies are at the same level.

e) Monitoring and Management of Resources/ Wastes

When it comes to monitoring and management of resources/wastes for cleaner production, only 23% of companies are at desired level. The common problem of all companies is to systematically monitor and record amount of consumption/production of resources/wastes. Only a few companies try to monitor their input/output on a regular basis, not to mention benchmarking with good practices in the sector and best available techniques referred to in various sectoral publications. Only 38% of all companies in the region are aware of internationally accepted “best practices” and/or “best available techniques” in the textile sector for “pollution prevention”. But adoption and implementation of those techniques/practices are very rare in the target region.

Although above 90% of all companies are stating that energy and raw materials are among biggest cost items within the production cost, only 26% and 38% of them are taking measures and planning activities for efficient use of raw materials and energy respectively. On the other hand solid waste and air emissions management are found to be among the low priority areas in terms of their associated costs.

Among ongoing/planned activities on resources and waste management, energy management/saving comes forefront in almost 40% of the target region companies. Water use is another issue for 34% of companies to be tackled through some management practices and new implementations. However wastewater management is not seen as a cost item in majority of the companies since the garment companies do not dispose wastewater, while some of the wet processing companies are discharging it into wastewater collection pipelines ending-up in central wastewater treatment plants of Organized Industrial Zones. Still when compared to other items, water management is the second area after energy when ongoing/planned activities are of concern. The main reason of this situation is the embodied environmental impacts and economic concerns associated with water consumption indirectly. In other words, although water is not seen as a cost item itself, its inseparable relation with energy and chemical consumption moves water oriented measures up in the activities list of companies.

To monitor and manage resources/wastes with cleaner production approach is far more important for wet processing companies since their resource use and waste generation is more intensive than the rest of the companies. Amount of resources/ wastes are monitored only in 55% of wet processing companies in the target region on a process based approach for different units. On the other hand, 83% of other region companies monitor their resource use and waste generation on a process based approach for different units. 92% of other region companies conduct improvement studies for reducing the amount of raw material/water/energy consumed and wastewater/solid waste/emissions generated. Based on these discussions only 24% of wet processing companies from target region found to be at desired level in terms of monitoring and management of resources/wastes while 75% of other region companies are at desired level in this area. Although monitoring and managing resources/wastes with cleaner production approach are far more important for wet processing companies, the percentage of the companies in the region at the desired level is almost the same as the percentage identified for all the companies.

In the target region “raw materials” and “energy” are found to be the most important inputs since they have highest shares in resource/waste management costs. There is no major difference in this respect when compared with the companies from other regions. In addition to raw materials and energy, water was determined among highest cost items as expected. Wet processing companies from other regions are more aware of the cost of their water use.

Their answers to the open-ended questions indicate that to a certain extent they are aware of the embodied environmental impacts and economic concerns associated with water consumption indirectly, like energy and chemical consumption. So 88% of other region companies stated that water is among their costly inputs together with energy and raw materials.

A remarkable result of the survey is that only 32% and 45% of target region companies have ongoing/planned activities for the efficient use of energy and raw materials respectively. Their statements in questionnaires indicate that they believe their current practices are satisfactory which do not require further measures/implementation for better and efficient use of those primary inputs. The picture is a lot different when other region companies are of concern. Without an exception all companies from other regions (100%) take measures to effectively manage water, energy and chemical consumption. Even 67% of other region companies are taking measures to decrease air emissions mostly by using high efficiency energy production technologies (e.g. boilers) and cleaner fuels (e.g. natural gas).

f) Effect of Markets and Customers on the Environmental Performance

Answers of 41% of all target region companies show that the effect of markets and customer relations on the environmental performance (wastewater treatment, hazardous waste management, etc.) can be defined as “high”. According to 76% of companies, demands of customers (e.g. corporate social responsibility standards) are bringing additional cost. Since companies are aware of the fact that relations with customers are very strategic, they are willing to meet the requirements of their customers. On the other hand 81% of companies believe that environmentally friendly (organic, ecologic, etc.) textile products are an opportunity for enlargement of the market and reduction of environmental impacts. This result indicates that product oriented approaches (organic textiles, environmentally friendly products, etc.) are more familiar to textile producers than the environmentally friendly production processes.

Wet processing companies in target region stated that their relationship with large enterprises (e.g. multinational corporations) is limited since most of these companies are not garment producers. They produce textile products, including fibres and fabrics or give wet processing services to garment producers which are in direct contact with large enterprises. As a result of this, the perspectives of wet processing companies are different than the rest of the companies in target region when the effect of markets and customers are of concern. Accordingly, only 28% of wet processing companies in target region highlighted that the effect of markets and customers on their environmental performance is high, while the ratio is 41% among all companies in target region.

When wet processing companies from the target region are compared with the companies from other regions a big difference is observed in their perspectives. Since the companies from other regions work extensively with multinational corporations, their management practices and policies are mostly in line with internationally accepted standards. So 83% of the companies from other regions state that their customers (e.g. multinational corporations) are very influential on their environmental performance. Since the export capabilities of target region companies and their relations with multinational corporations are not at desired level, only 28% of companies found large enterprise standards influential.

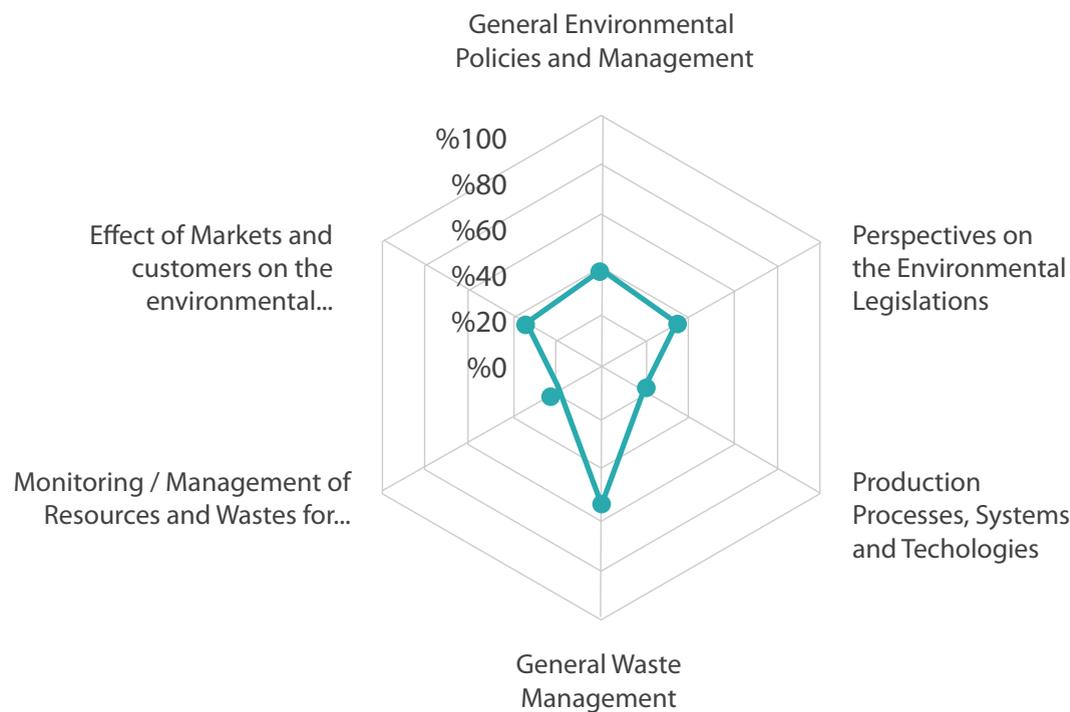
2.2.1. Overall Assessment of Environmental Performance of Companies

Based on above discussions it can be stated that although companies are rather “good” in general waste management practices (55% of the companies are at desired level), selection of resource efficient and cleaner production processes/technologies during new implementations are not at desired level (19%). In addition to that there is still way to go in effective monitoring and management of resources (Figure 2). It is observed that systematic monitoring and benchmarking for continuous improvement is not practiced even in the technologically most developed

companies. So the results of survey analyses indicate that cleaner production approach is not adapted in the majority of target region companies.

This situation corresponds to a big potential in terms of both economical and environmental performance when integrated environmental management and cleaner production is fully adapted in the textile producers active in the target region.

Figure 2: Overall assessment of environmental performance of companies in the target region

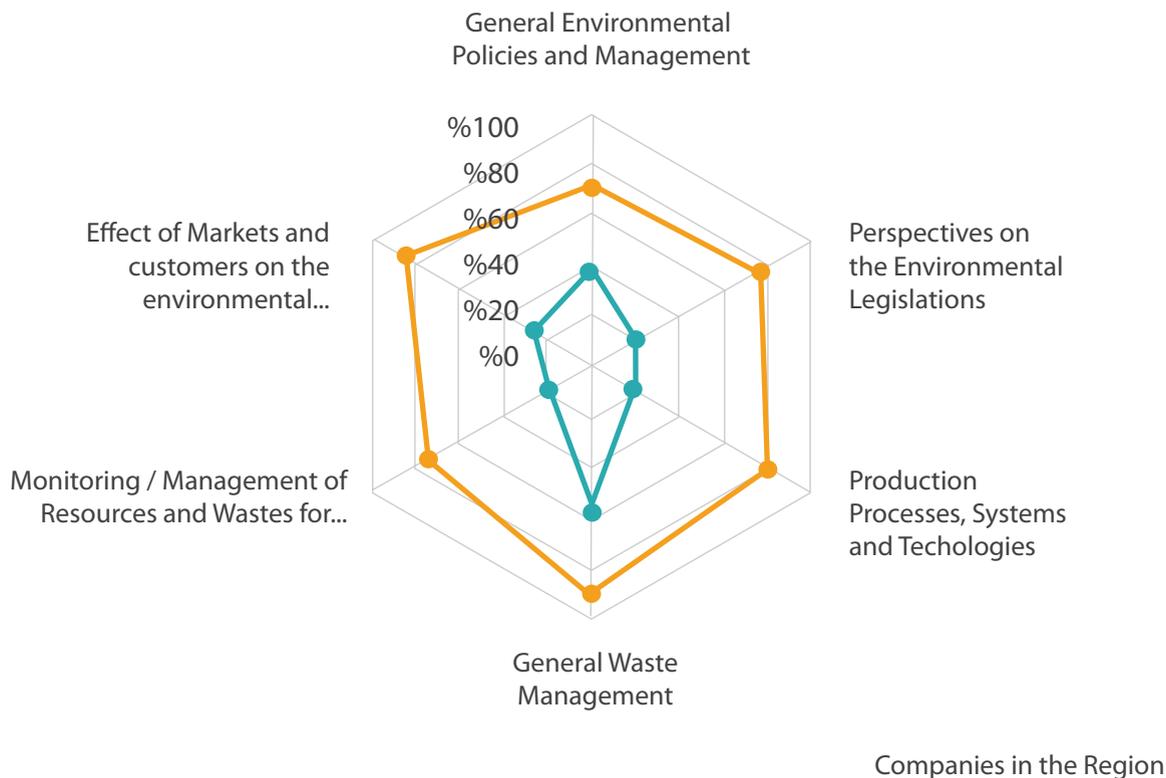


A big difference is observed between target region and other region companies in almost every aspect of environmental management and associated performance. Although general waste management performances are rather similar there are some issues in target region companies to integrate the environmental concerns into their business practices and general policies. But maybe the most important areas where other region companies are far more developed than the companies from target region are related with the implementation of new technologies and effective monitoring and management of resources/wastes parallel to cleaner production approaches.

2.3.Meso Scale Analysis: Markets and Customer Relations

Since large enterprises (multinational corporations and Tier-1 companies) are known to be highly influential on the economical, social and environmental performance of textile producers (SMEs), it is of utmost importance to assess the mechanisms and means they intervene in environmental issues/concerns. In this part of the study results of survey conducted to both multinational corporations and Tier-1 companies are presented. In total 10 companies

Figure 3: Overall assessment of environmental performance of wet processing companies



(4 multinational corporations and 6 Tier-1 companies) contributed to the study. Multinational corporations were selected among the firms that have CSR policies and departments for social/environmental compliance in Turkey. On the other hand, Tier-1 companies were selected among important Turkish garment producers from around the country which cooperate with various textile producer companies from different tier levels.

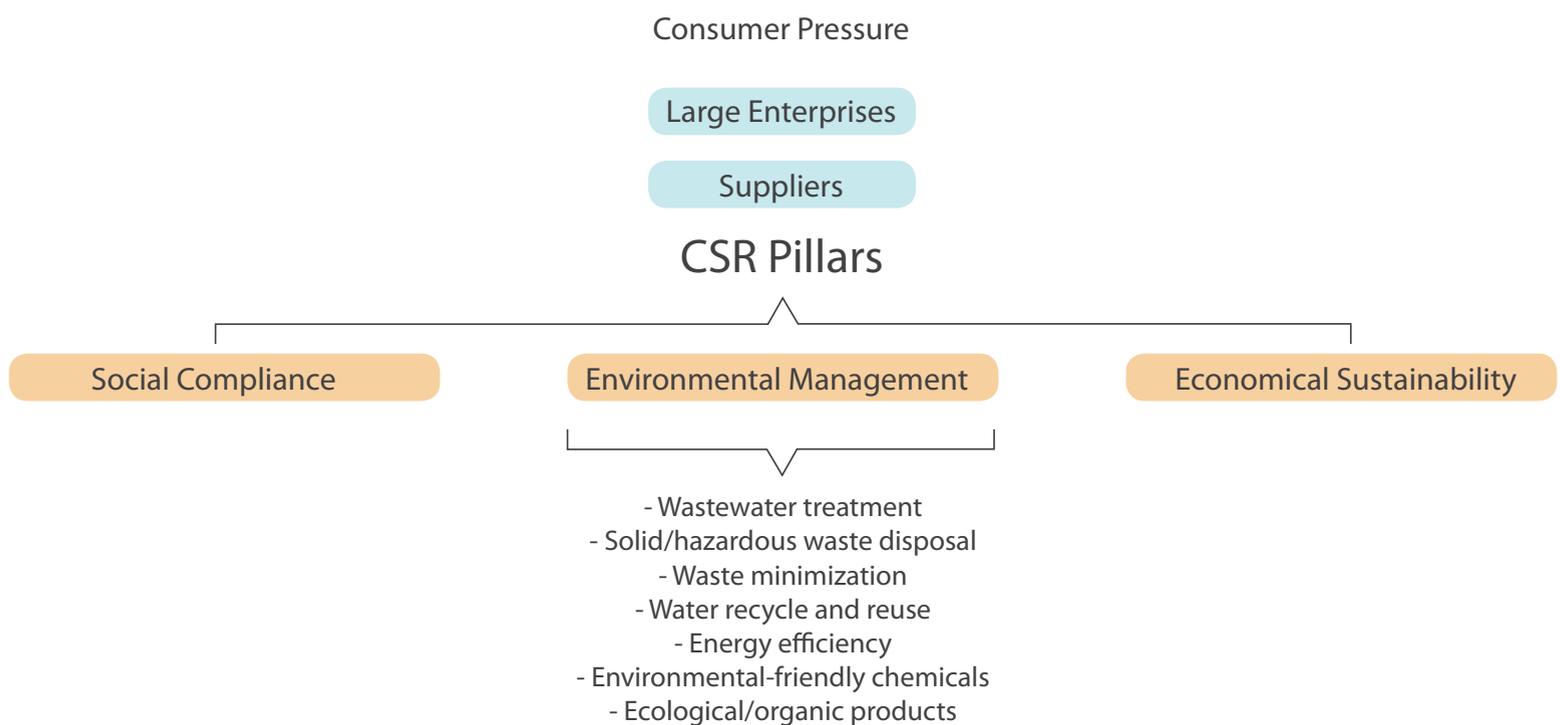
a) General Corporate Social Responsibility Approach and the Environmental Management

Large enterprises (multinational corporations and Tier-1 companies) state that the risks posed by textile industry are high and business action is crucial for decreasing the associated risks. Large enterprises reached through survey have some efforts to integrate various actions that aim to improve the environmental sustainability of their operations and facilities as well as the work they carry out with suppliers, customers and industry partners. Particularly multinational textile corporations request their suppliers to sign their Code of Conduct, which involves environmental standards (BlueSign®, Oeko-tex 100, Business for Social Responsibility-BSR, Business Social Compliance Initiative-BSH, etc.), before starting to place their orders. Environmental management is one of the three major pillars in these codes of conduct (Figure 3). The other pillars are sustainability and social compliance. Environmental management as one of the pillars receives as much attention as the other pillars for some of the multinational corporations, having relatively an important consumer pressure on the related topics globally. In addition to final consumer pressure, some corporations are increasingly pushed towards the requirement of environmental responsibility by other important players like sponsors. However as a general remark from the majority of the respondents, environment pillar still lags behind other pillars.

It is underlined by multinational corporations that in Turkey environment dimension of their CSR strategies started differentiating from sustainability and social compliance, parallel to the current trends in global markets. The shift

from a combined CSR approach to individualized perspectives to each pillar is due to the fact that each pillar has its own features, needs to be managed separately and requires different expertise. Owing to that, some companies have recently started conducting their compliance audits separately. Although the viewpoints of multinational corporations are changing from combined to tailored approaches, large Turkish enterprises even lack well-defined CSR policies. Although the export shares of the large Turkish enterprises are high they do not feel considerable consumer pressure on social and environmental issues. Still their point of interest is quality, low price and timely delivery rather than environmental concerns.

Figure 4: Pillars of corporate social responsibility



In the supply chain performance of multinational corporations on the other hand, energy/carbon management, water use and associated wastewater treatment comes forefront, in addition to solid waste management within the scope of environmental management. Most of the corporations have some short and mid-term projects/targets to reduce the energy and water consumption of their suppliers which are set as priority areas. Within the whole CSR understanding, environmental management is accepted as the most technical dimension among other dimensions namely sustainability and social compliance. This is the main reason that corporations start getting either external technical support and/or employing professionals from environmental management field.

Multinational corporations see environmental management as a driver for competitiveness of their suppliers, the textile producers. It is stated that compliance with national environmental legislations as well as resource efficiency, leading to economical savings are achieved, by CSR polices. However the achievements of environmental activities/projects are limited to the approaches that multinational corporations follow as part of their own CSR policies. Issues like emerging environmental management practices, the state-of-art R&D activities diminishing environmental impacts and international best practices other than supplier companies are not covered in these CSR policies. This situation hinders the scaling-up of their environmental activities/projects.

b) Environmental Issues Addressed in their Corporate Social Responsibility Standards

Large enterprises request their suppliers to comply with their environmental standards although generally they do not require any generic environmental management system standards such as ISO 14001. The surveyed multinational corporations having CSR policies underline that most of the time their norms are stricter than any of the standards set out in the national rules or regulations. Through regular audits, large enterprises are evaluating environmental performance of the producer/supplier companies by following checklist-type procedures. The audits are carried out either by the representatives of the customers or a third party assigned. During the periodical audits (per 6 months, per year, etc.) suppliers are subjected to several compliance checks. It is very similar to the environmental audits of regional public bodies.

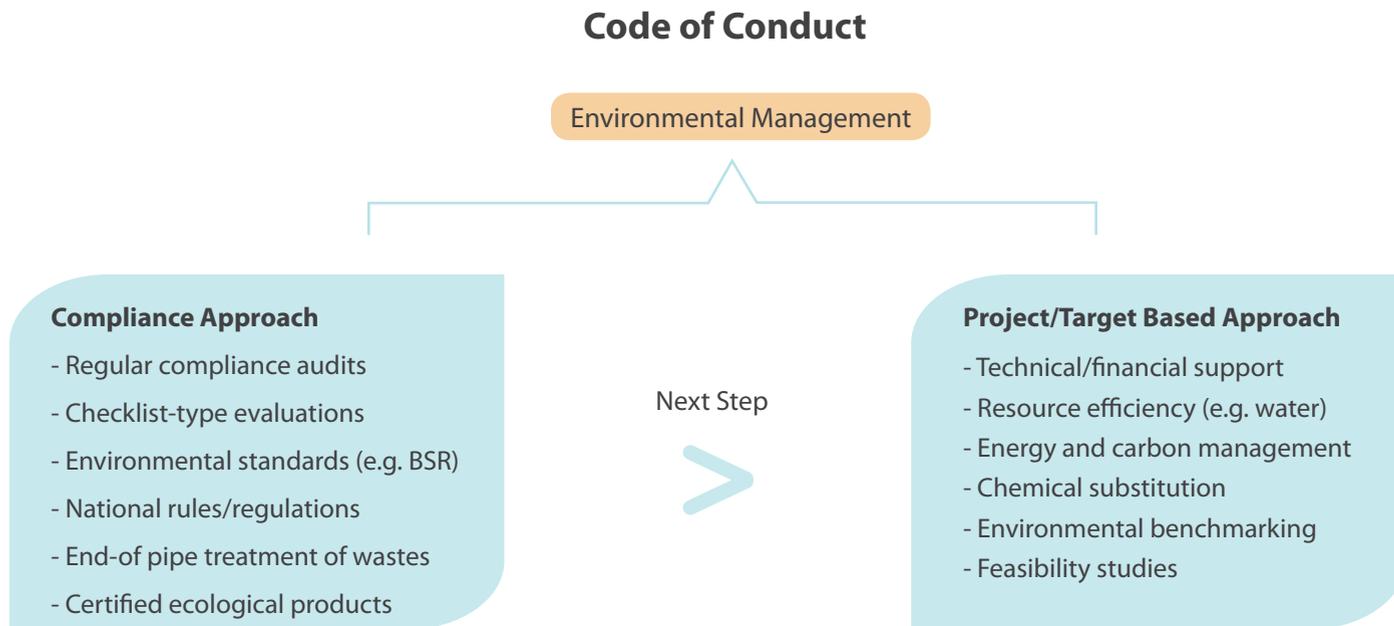
In environmental compliance audits wastewater, solid and hazardous waste management as well as air emissions are examined. Regarding the wastewater treatment, some large enterprises request their suppliers to comply with internationally recognized standards like Business for Social Responsibility (BSR) standards which are known to be stricter than the standards set by Turkish regulations. Pollutant (COD, BOD, TSS, etc.) based compliance is evaluated for wastewater, based on the accredited laboratory results. Majority of the large enterprises follow the national rules and regulations on solid and hazardous waste management. In terms of chemical management they seek for the compliance with the related principals set out by the EU Registration, Evaluation, Authorisation and Restriction of Chemicals Directive (REACH).

The suppliers of large enterprises, the garment producers, whether with wet production processes or not, have to comply with all the environmental standards. As it is obvious, garment producers without wet processing are less environmentally problematic than the ones having wet processing. In suppliers without any wet processing, importance is given to general legislative compliance and energy efficiency. Suppliers with wet processing however receive more detailed audits, involving water and wastewater management as well as chemical usage. The compliance requirements and standards are not only dependent on the type of production processes but other factors like local conditions. For instance in a water scarce country or a region water gains importance while air emissions are evaluated in detail in a country where air emission standards are quite strict.

It is also clear that global environmental issues and trends dramatically influence the CSR approaches of multinational textile corporations. For the last 3–5 years energy efficiency and carbon management have become high priority concerns attributed to the climate change. This can be regarded as a perfect example how consumer pressure and global market trends influence a market driven instrument like the CSR. In addition to the climate change, water scarcity is being referred in the survey results of large enterprises. In other words water efficiency is becoming hot topic in the scope of CSR policies.

Large enterprises accept that they put extra pressure on their suppliers forcing them to comply with their stricter environmental standards (e.g. colour removal from wastewater). However they are aware of the fact that a sustainable customer-supplier relation is very much dependent on final consumer demands which affect environmental norms day by day. Owing to that situation, most of the surveyed large enterprises, especially multinational corporations, are trying to develop methods and projects to decrease both negative environmental impacts and production costs of their suppliers. In other words, large enterprises are shifting their focus from checklist-type of evaluations, on which their suppliers have become quite competent, to an approach where resource efficient and cleaner production prevails. Large enterprises' representatives state that they receive positive responses from their suppliers since their new approaches are bringing both environmental and economic returns. Some textile companies take the concept one step forward by certifying some of the strategic suppliers for their competency on each of the thematic areas including water, waste and energy (process, lighting, insulation, heating/ cooling) as well as project management.

Figure 5: Environmental management approach in the context of Code of Conduct



c) Impact on the Environmental Performance of Suppliers with Different Tier Levels

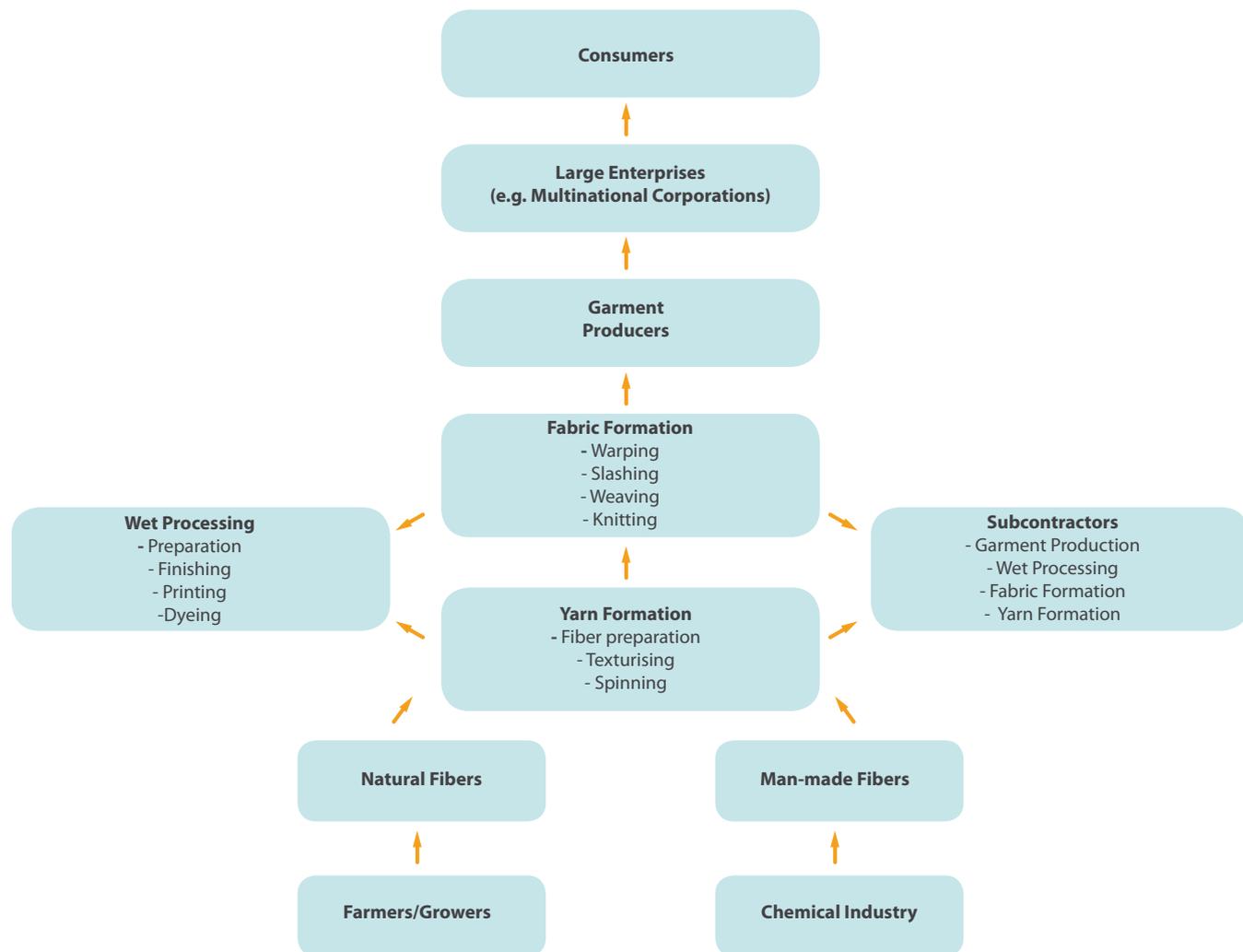
One of the important barriers in front of the improvement of environmental performance of supply chain of large enterprises is the complicated production modes involving different tier level suppliers/ subcontractors. The codes of conduct of large enterprises are signed with main producers and their important subcontractors. The compliance audits are conducted accordingly in main producers and their important subcontractors. However large enterprises recognize that by following such a procedure they are not able to reflect/control the “actual” environmental situation of their whole supply chain. It is admitted that there is not an established mechanism in none of the surveyed large enterprises to reflect/control environmental performance of other tier levels than their suppliers and Tier-1 companies which they are directly in contact with.

It is acknowledged by the surveyed large enterprises that involvement of subcontractors into the supply chain increase the inefficiencies and the possibility of mismanagement practices in terms of environmental management. Since most of the time the subcontractors are not involved in the compliance audits, their negative environmental impacts are not evaluated. So, the only objective of subcontractors is to provide timely and high quality service at a lowest possible price. In other words, subcontractors and other tier level producers, including some wet processing companies, are treated as a “Backyard” of suppliers, to which attention is not paid as much as it is actually needed. On the other hand some multinational corporations sign long term agreements with big scale producers, which do not work with subcontractors as part of the agreement. By this way some multinational corporations try to assure long term cooperation with their main suppliers without complicating the production algorithm by subcontractors and their possibly negative environmental performances.

Even if compliance audits and associated checklist-type environmental evaluations are conducted to all suppliers (including Tier-1 companies), as part of the codes of conduct, project/target based activities (resource efficiency, developing ecological products, etc.) are carried out with selected major suppliers only. The reason behind is to use resources (financial, human, etc.) efficiently to achieve short- and mid-term targets with regard to environmental

performance. This means only some of the major suppliers (garment producers) receive continuous support and encouragement, not to mention other tier level producers or subcontractors when it comes to project/target based activities.

Figure 6: Supply chain of large enterprises involving suppliers/subcontractors



Abovementioned issues are the main barriers in front of real environmental achievements through the whole textile supply chain, which is referred to in CSR policies of large enterprises, multinational corporations in particular. Some major suppliers (Turkish garment producers) started developing social and environmental compliance standards on their own, influenced by multinational corporations. Although being part of CSR approach, this development is a good indication that penetration of environmental consciousness is possible from the top of textile supply chain to producers (from top to the bottom). On the other hand, it is an obvious fact that from top to the bottom of the supply chain not only the scale of companies but also their awareness and capacity are decreased. This situation also makes it difficult to reach quite a number of small scale companies including subcontractors and different tier level companies.

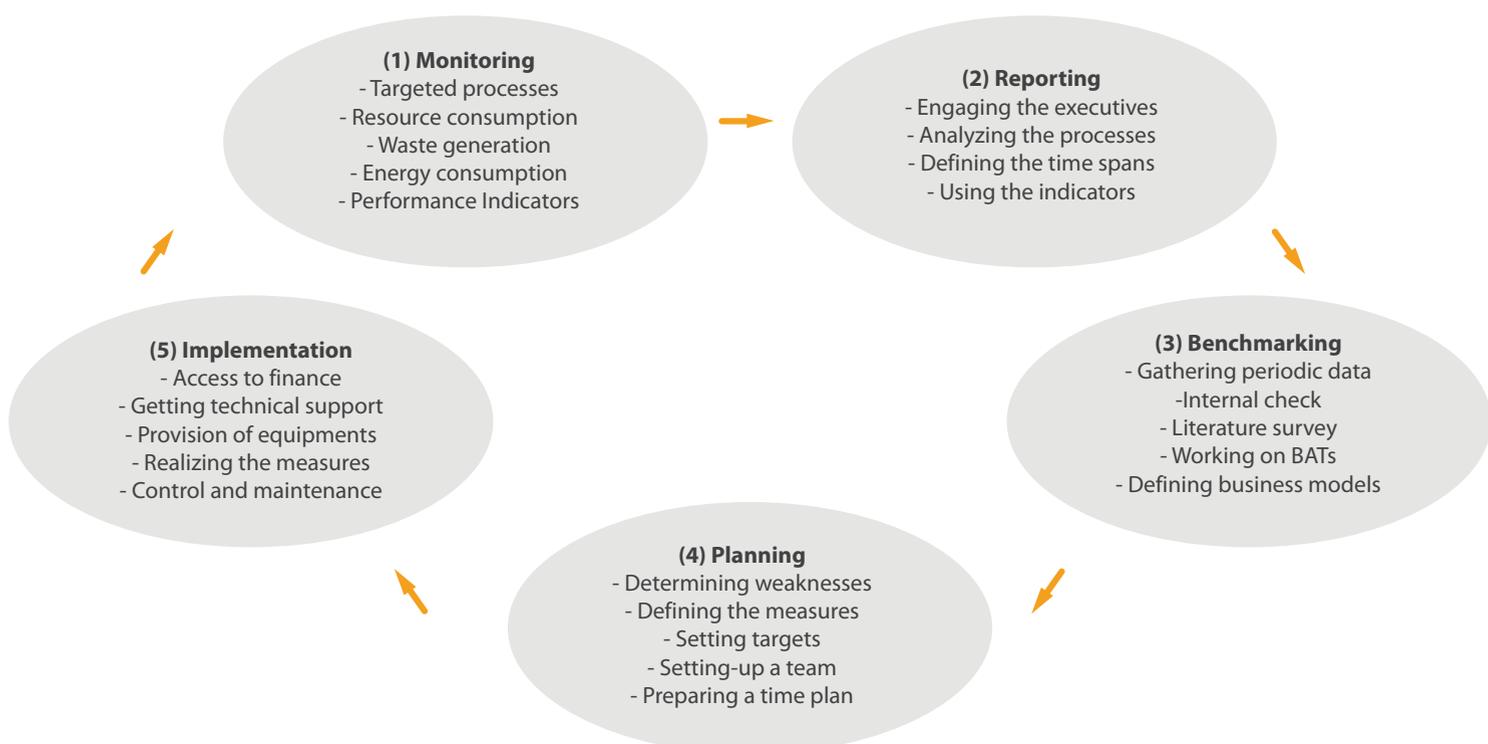
c) Long-term Visions and Sustainability Measures

Large enterprises are striving to keep their competitive position through four important dimensions of their activities: (i) quality, (ii) cost, (iii) delivery time and (iv) Corporate Social Responsibility. It is stated that Turkish producers are relatively satisfactory competing with their competitors in terms of both quality and delivery time since they are able to deliver relatively high quality products to European markets on time. However they have (or may have in the future) disadvantages in terms of both cost and CSR when compared to their competitors in Far East (China, India, etc.), where compliance with the regulatory arrangements on social and environmental topics known to be rather easier.

So, in order to sustain long term cooperation with their suppliers in Turkey multinational corporations are aiming at decreasing production costs without compromising high environmental performance as an integral part of CSR approaches. In their long-term visions large enterprises see their major suppliers as strategic partners. Ensuring international technical/financial support to their strategic partners, large enterprises started focusing on resource efficient and cleaner production techniques/technologies including energy efficiency rather than end-of pipe approach in waste management. From that perspective areas that gain much attention are waste minimization at source, wastewater reuse, energy efficient technologies and environmentally friendly products.

Since the multinational corporations are operational in a number of countries (China, India, Indonesia, Turkey, etc.) through hundreds of producers, they have a huge potential for environmental benchmarking among many different companies. Some corporations have started benefiting from this situation. Best operational practices are selected among different producers with similar production processes through environmental performance indicators (energy consumption per unit product, wastewater generation per raw material, etc.). The environmental benchmarking enables multinational corporations to determine inefficiencies in production processes of some of their suppliers. By this way knowledge transfer also becomes available from technically/technologically more

Figure 7: Continuous improvement cycles for resource efficiency



developed producers to less developed ones. Multinational corporations consider this as a strategic approach for the sustainability of their activities. Since effective monitoring and benchmarking are the keys for successful implementations in the production processes, they can lead to “Continuous Improvement Cycles” reflected in Figure 7, if the adoption of the approach is ensured in the producers.

Large enterprises are also after finding ways to intervene in the environmental performance of different tier level suppliers in addition to the subcontractors of their suppliers. However, their plans only involve environmental compliance in line with codes of conduct and are still behind the project/target based approaches which aim at both economical/environmental benefits in a sustainable manner. Large enterprises, especially multinational corporations claim that “environmental modernization” of their whole supply chain will contribute to the realization of their common vision, producing high value-added products at a lowest possible cost, on a timely fashion in Turkey.

2.4. Macro Scale Analysis: Institutional Set-up and Environmental Governance

The two main focus areas of the environmental aspect of CSR are environmental management and cleaner production, including resource efficiency. Within this framework and in this section, it is aimed to analyze and evaluate the institutional set-up and governance relevant to environmental management and particularly cleaner production in Turkey for industrial sector in general first, owing to the fact that textile sector is also included in the same picture. Additionally, other issues, specific to textile sector within the same context, are also evaluated. In this respect, the interviews and/or communications carried out with different institutions provided additional and updated information which contributed to the whole evaluation process.

For this evaluation, one of the most useful resources is the Final Report of a project implemented by TTGV in 2009–2010 on behalf of Ministry of Environment and Urbanization, which is called as the “Project of Determination of the Framework Conditions and Research and Development Needs for the Dissemination of Cleaner (Sustainable) Production Applications in Turkey”. This report gives, within the perspective of cleaner production, a detailed analysis of capacities of the relevant institutions, legislative issues as well as financial and incentive mechanisms. A study on the sectoral prioritization of the industrial sectors for cleaner production is also included in the report (6).

Meanwhile as a recent development in 2011, the General Directorate of Productivity was established in MOSIT, whose one of the major fields of activity will be cleaner production or eco-efficiency. The unit aims to develop policies and strategies for the dissemination of cleaner production activities in industry.

a) Legislative Framework and Standards

In Turkey there is an extensive environmental legislation framework which is closely related with the industrial sector. In addition to the Environmental Law which is the main legislative set up, there are several regulations related with wastewater, waste, chemicals and air emission management topics. The general outlook of the Turkish environmental legislation has been close to an “end of pipe” approach rather than a cleaner production or an integrated environmental management point of view. However in recent years, particularly with the driving force of EU harmonization requirements, contemporary aspects of environmental management, namely cleaner production and resource efficiency related approaches, have started to be included.

Within the context of this report and in relation to the environment aspect of the CSR approach, focus is made on the cleaner production angle of the environmental legislative framework. In this regard, when Turkish legislation is analyzed in terms of cleaner production and other relevant concepts such as resource efficiency, waste reduction, etc., it is observed that such concepts are actually frequently cited at different parts and levels of the relevant legislation. Moreover, it is indicated that development of cleaner technologies, approaches is a need [6].

From the perspective of textile industry and particularly the wet processing sector, Water Pollution Control Regulation is particularly important since water consumption and wastewater production are the major environmental impacts. This regulation relates every wastewater source to permission. On the other hand, for the purpose of classification of continental interior surface waters, groundwater and sea water according to various intended uses; it requires the necessity of identifying the region with heavy pollution and determination of the priorities of the measures to be taken. It also refers to resource efficiency and cleaner production approach by underlining the necessity of “water pollution prevention in a manner consistent with sustainable development objectives” as well as the importance of “production with technologies which prevent pollution at source by minimizing the concentration of pollution in the wastewater”. As an important development relevant to this regulation, the “colour parameter” was added into the sectoral tables of discharge standards as a new wastewater discharge parameter in April 2011 for related sectors including textile industry [31]. It is believed by Ministry of Environment and Urbanization (MOEU) representatives that textile companies may have difficulties in complying with this wastewater discharge parameter [32].

In addition to the Water Pollution Control Regulation, there are many other regulations which have to be followed by the textile manufacturing companies, similar to other industries, namely the regulations related with waste management, industrial air pollution control, chemicals management, etc. Some of the major regulations falling under this context are listed below:

- Regulation on the Control of Pollution Caused by Hazardous Substances in and around Water Bodies
- Regulation on General Principles of Waste Management
- Solid Waste Control Regulation
- Hazardous Waste Control Regulation
- Waste Oil Control Regulation
- Waste Batteries and Accumulators Control Regulation
- Packaging Waste Control Regulation
- Hazardous Chemicals Regulation
- Regulation on Restrictions Relating to Production, Supply, and Use of Some of Hazardous Substances, Products and Goods
- Regulation on Control and Inventory of Chemicals
- Regulation Concerning Reduction of Ozone Depleting Substances
- Industrial Air Pollution Control Regulation,
- Environmental Audit Regulation etc.

Meanwhile, Turkey does have a legislation which directly addresses pollution prevention or cleaner production, except for the “Communiqué of Integrated Pollution Prevention and Control in Textile Sector” that will be explained in detail below.

As mentioned above, Turkey’s EU harmonization process has a critical impact on the ongoing improvement process of Turkish environmental legislation. While the National Program of Turkey for the Adoption of the EU Acquis [33] is considered, it is foreseen that the adoption regarding the waste management related legislation will be mostly completed in the years to follow. However the critical issue is to support this set of legislation with the necessary infrastructure and capacity needed for implementation. Taking the Sustainable Consumption and Production Action Plan of EU as an example and development of a similar plan for Turkey is considered to be a critical gap. This is critical in terms of taking into consideration all of the integrated parts of this action plan such as eco-labelling and eco-design along with life cycle assessment, the regulations of which are not put into force in our country yet [6]. As known, textile industry is among the major sectors in which eco-labelling and eco-design have the highest level of application and demand.

Registration, Evaluation and Authorization of Chemicals (REACH) Directive is a directive of EU for having and restricting the permissions related with registry, evaluation, production and import of chemical substances. The purpose of REACH is to control and manage potential harms on human and environment which may occur due to production and use of chemicals in EU or import of chemicals to EU. REACH is among the EU directives for which a harmonization process is implemented in Turkey [6]. Due to the high amount and variety of chemicals and dyes used in textile sector, adaptation to REACH requirements is quite critical for the sector. As mentioned in Section 6.3, large enterprises (particularly multinational corporations) seek for their suppliers' compliance with the related principles set out by the REACH Directive, although Turkey has not fully adapted this directive into its national legislation.

When the present Turkish legislation is compared with the EU legislation from the perspective of cleaner production and other relevant concepts including environmental management, resource efficiency, etc., another critical issue coming to the forefront is the EU Integrated Pollution Prevention and Control (IPPC) Directive. IPPC Directive (96/61/EC) is the basis of the EU Environmental Legislation in terms of industrial pollution. It aims to prevent pollution arising from the leading industrial institutions and to prevent these institutions from operating without receiving permission from authorized bodies within the limits and requirements stated in the Directive. According to the directive, the emission limits and the corresponding technical measures to be applied have to be based on Best Available Techniques (BAT), set out for each industry in detail [6].

As far as the EU Harmonization Acquisition Program of Turkey is considered, adaptation of IPPC Directive is included in the plan; however it is subject to the results of ongoing projects and is not expected to be realized in the near future. Although the studies for adaptation to IPPC Directive is still continuing and it may take longer time for full adoption, it is very important to inform our industry about the best available techniques (BAT) and its reference documents underlined in the EU's IPPC Directive. This should be done with active involvement of all the stakeholders through the use of Best Available Techniques Reference Documents (BREF's) as well as other related sectoral guides, handbooks, etc [6]. This approach is particularly important within the framework of this study, since one of the industries subject to IPPC Directive is the textile industry. Hence, there is a comprehensive BREF for textile industry, which also includes pollution prevention (cleaner production) approaches and guides. Its dissemination within the sector is still a need.

Within this framework, representatives from MOEU have also underlined the need and significance of sectoral approach in understanding and disseminating BATs and BREFs [32]. For textile industry specifically, it is indicated that most of the enterprises operating in textile and garment sector in Turkey have begun to pay attention increasingly to the issues listed in the abovementioned reference document [34].

Meanwhile, very recently in the Official Gazette dated 14.12.2011 and numbered 28142, the "Communiqué of Integrated Pollution Prevention and Control in Textile Sector" has been put into effect by MOEU [35]. The major purposes of the communiqué are setting the procedures and principles in relation to minimizing the negative environmental impacts of textile industry activities, achieving an environmentally friendly management through the control of all industrial emissions, efficiently use of raw materials and energy as well as cleaner production technologies. The textile plants having a capacity higher than 10 tons/ day of washing, bleaching, mercerizing, sizing, printing, dyeing and finishing, are subject to this communiqué. The major principles adopted by this legislation are;

- Pollution prevention,
- Use of cleaner production technologies in order to achieve efficient use of natural resources and energy,
- Use of environmentally friendly technologies to reduce all kinds of industrial emissions at source and achieve their recovery,
- Design and manufacturing of a product in such a way that the environmental impacts during the production stage are minimized,

- Giving priority to the cleaner production techniques within the assessment of resource and energy use, during Environmental Impact Assessment (EIA) process,
- Preparation and implementation of cleaner production plans which also include environmental performance indicators to be identified and monitored.

In accordance with the communiqué, the Cleaner Production Plans are to be prepared and submitted during the application process of environmental permit and be revised during each application. The existing plants on the other hand are required to prepare and submit their plans until the end of year 2012. The plan should include the evaluation of the best available techniques (BATs) to be implemented by the plant, which are listed in the communiqué. The plants are also obliged to submit annual progress reports based on their implementation of the cleaner production plans [35].

This communiqué which has been put into effect very recently is an important development showing the governmental approach towards both environmental problems associated with textile sector and the cleaner production as a solution. The representatives of MOEU indicated the reason for the preparation of Integrated Pollution Prevention and Control Communiqué, firstly for textile industry is the devastating environmental problems in Ergene River Basin where the textile industries are highly concentrated. It is also envisaged by the MOEU representatives that the communiqué will bring about serious requirements for the textile companies which may have difficulties in compliance, particularly for certain wastewater discharge parameters such as colour and conductivity. However since a sufficient time is given for compliance, the companies will be able to align themselves accordingly [32].

As a matter of fact, it is quite interesting that a specific legislation has been developed which directly refers to IPPC as well as cleaner production for the first time in Turkey and the only target sector is specifically textile industry. This also shows that textile industry has a big potential to act as a pioneer and a model for others for the dissemination of cleaner production applications and that IPPC approach may potentially be applied for other sectors as well, in the future.

Meanwhile, EU Eco-labelling Directive and EU Environmental Management and Auditing Scheme (EMAS) intended to be adopted for “post-2011 period” in the National Program of Turkey for the Adoption of the EU Acquis are again the two of the most important regulations that encourage environmental management and cleaner production. It is believed to increase the speed of steps for disseminating the cleaner production nation-wide. However, for the time being, there are no signs of completing the full adaptation of these two legislations in the near future.

On the other hand, as stated before, systems, approaches and methods which are falling within the scope of sustainable development, related to environmental management, cleaner production and resource efficiency include energy-related issues as well. According to this, energy is one of the important aspects of the approaches such as sustainable production, sustainable consumption, industrial ecology, integrated pollution prevention and control, life cycle assessment, eco-efficiency, minimization of resource use and use of renewable sources. For energy efficiency activities, an important substructure in terms of legal and institutional aspects which is also oriented to capacity building has been set up with the Energy Efficiency Law numbered 5627 and dated 2.5.2007, along with the Regulation on Enhancement of Energy Efficiency in Energy Resources and Energy Use which came into force on 26.3.2009 [6].

According to the Energy Efficiency Law, following requirements have started to be implemented:

- Appointing “an energy manager” if annual energy consumption of industrial plant is more than 1,000 tons of oil equivalent (toe).
- Establishment of an energy management unit under the responsibility of an energy manager if annual energy

consumption is more than 50,000 toe.

- Establishment of energy management units in Organized Industrial Zones, in order to serve to the facilities whose annual energy consumption is lower than 1,000 toe.
- Providing supports for energy efficiency related training, consulting and audit services to the SMEs by Small and Medium Industry Development Organization.
- Regulation on Enhancement of Energy Efficiency in Energy Resources and Energy Use has been revised in October 2011. One of the most significant issues set by the revision is the requirement of TS EN ISO 50001 Energy Management System Certification as a prerequisite for benefitting from certain incentives and supports for energy efficiency.

Since the above mentioned law and regulation on energy efficiency were put into effect, there were considerable impacts observed in the market, including the industrial companies as well as the service providers, namely energy consultancy companies. Textile industry, as one of the major sectors in Turkey in terms of energy consumption, has been affected by these legislations and some initiatives have taken place. However, there is still room and potential for improving the energy efficiency capacity of this sector.

One of the most important developments recently coming to the agenda is the Turkish Industrial Strategy Document which was put into force by Ministry of Science, Industry and Technology (MOSIT) for the period of 2011-2014 with a theme of "toward EU membership". In the document, a specific focus is made on the significance of energy efficiency, environmental management, cleaner production and eco-efficiency as well underlining the concepts like environmentally friendly production processes, and low carbon economy.

Specific to the EU harmonization process of the textile industry, it is indicated that Integrated Pollution Prevention and Control Directive (IPPC) is the most important framework regulation regarding the environment. Within the framework of export requirements, particularly for EU exports, the two major regulations to be considered are the Oeko-tex 100 standard and REACH Directive. This document also emphasizes that it is important to obey the issues stated in the BREF Document for Textile Industry considering the EU requirements which are encountered during export procedures [34].

As discussed above, particularly multinational textile corporations request their suppliers to sign their Code of Conduct, which involves environmental standards (BlueSign[®], Oeko-tex 100, Business for Social Responsibility-BSR, Business Social Compliance Initiative-BSH, etc.). While such international standards some of which are specific to textile industry are generally required by the multinational corporations, EMS standards such as ISO 14000 is generally not among the environmental standards considered in the codes of conduct of the abovementioned multinational corporations. Hence, ISO 14000 standard does not seem to be an attractive and useful tool for the textile producers since they already comply with more specific and stricter standards imposed by their customers.

As an example, the standard known as TS EN ISO 14001 was developed for guiding enterprises in the establishment, auditing and improvement studies of EMS and the number of companies who have acquired this certification from TSI so far has been 403. Of these, only 17 are from textile industry.

However for TS EN ISO 50001 Energy Management System Standard which was published very recently in 2011 by TSI, the demand and interest from the textile industry is expected to be higher than the TS EN ISO 14001 Standard.

The basis for this expectation is not only the energy efficiency and carbon management issues gaining more importance for multinational corporations but also the Regulation on Enhancement of Energy Efficiency in Energy Resources and Energy Use revised in October 2011. As indicated above, the mentioned regulation requires the acquisition of TS EN ISO 50001 Energy Management System Certification as a prerequisite for benefitting from the

financial incentives and supports provided by the regulation. Moreover, both TSI and Ministry of Energy and Natural Resources seem to be very determined to disseminate the uptake of this standard by all Turkish industry.

In this regard, it is believed that in the coming years TS EN ISO 50001 standard will disseminate within the Turkish industry and it has a considerable potential to be applied in textile industry as well contributing to a more efficient and cleaner production in the sector. It can also help improving the environmental management systems applied in the companies and can be integrated easily.

b) Financial Support Schemes for Textile Producers

From the perspective of environmental management and cleaner production which constitute the two main axes of environmental aspect of CSR, it should be indicated that there are no specific financial supports for “textile producers”. However, the financial supports available for Turkish industry in general are available for textile producers as well.

Meanwhile, the financial incentive mechanisms available in Turkey, for cleaner production and relevant concepts are quite limited and not even comparable to those in EU, in terms of variety and amount. Some of the projects supported in Turkey, although limited, constitute the examples for financial resources that can be used for cleaner production activities. In addition to this, incentives for general purposes which have not been used for cleaner production so far are believed to be applicable in time for cleaner production, as the interest and perception towards this approach increases in Turkey [6].

Accordingly, the financial incentives which can be used for environmental management and cleaner production are listed/ exemplified below under two main categories:

General Purpose Incentives which can be used for Cleaner Production Applications

The most recent “Investment Incentive Regulation” (State Aid Regulation) came into force by the Cabinet Decision No: 2009/15199 (Official Gazette dated 16.07.2009 and numbered 27290) in 2009. The purpose of this Decision is to promote value added investments, increase production and employment, enable the continuity of investment trends as well as to enable sustainable development, encourage large scale investments with a high content of technology, R&D that improves international competitiveness. It also aims to promote international investments, eliminate regional development differences and support investments of environmental protection as well as R&D. Meanwhile the Bulletin numbered 2009/1 for the implementation of the Decision came into force by the Official Gazette dated 28.07.2009 and numbered 27302.

The Cabinet Decision brings about different exemptions according to the “region” and minimum investment amount. Except for the investment areas given in the Appendix 4 of the Decision, all the investments exceeding the minimum fixed investment limit, can benefit from the customs tax and Value Added Tax (VAT) exemptions, without any regional differentiation.

Additionally, R&D investments and environmental investments enabling the treatment or removal of the wastes and emissions can benefit from the interest support. It is indicated in the mentioned Bulletin that, new investments, extensions, modernization and product diversification investments are eligible for the incentives. Although there have been some revisions over the Bulletin numbered 2009/1 in time, the main framework and incentive approach is still valid. In this regard, it should be indicated that environmental investments and specifically cleaner production, including resource efficiency related investments can also benefit from the incentives under this Decision and the Bulletin, based on their nature and scope.

Since this study specifically focuses on a certain region including Gaziantep, Kahramanmaraş, Malatya and Adıyaman

the region specific incentives are also discussed here briefly.

In accordance with the regional incentive system implemented by the Treasury, each province is categorized under 4 regions based on their level of development and need for investments. Within this system, Malatya is categorized under the 4th region, whereas the other three provinces are categorized under the 3rd region. For both 3rd and 4th regions, there are incentives such as, contribution to investment, tax discount, interest support, investment field support, customs tax and VAT exemptions. The listed incentives are more favourable for the provinces categorized in the 4th region, when compared to the 3rd region. For both the regions “production of textile goods” is listed as one of the sectors eligible for the regional incentive mechanism. Since modernization type of investments are included within this mechanism, technology or system improvement projects in favour of cleaner production can also benefit from this mechanism.

As Gaziantep Chamber of Industry reported, such regional incentives increase the capacity of the companies in general and the textile industry is the one getting the highest level of benefits from these incentives. This should be regarded as an opportunity for the sector in this region to benefit from this or other incentives for cleaner production activities as well. Gaziantep Chamber of Industry is authorized to issue the incentive documents for the investors in Gaziantep province [36]. It is underlined by different stakeholders that textile industry did not receive any regional incentives until the new incentive system which started in 2009 and managed to achieve its current status without any additional incentives [36].

On the other hand, there are several “investment incentives” applied for Organized Industrial Zones, Small Industry Sites, Technology Development Zones and Industrial Zones based on several legislations. Companies located in such regions or zones can be eligible for several incentives such as tax exemptions, space assignments, energy support and construction supports. These can be used by textile companies as well, for “industrial ecology” type of applications as well as the substructure and construction expenditures associated with cleaner production investments [6].

Besides, different R&D support programs implemented by different institutions can be used for cleaner production based R&D and demonstration projects. Such support programs include R&D supports of The Scientific and Technological Research Council of Turkey (TUBITAK), Small and Medium Enterprises Development Organization (KOSGEB), Ministry of Economy and TTGV. Within the same context, the R&D related incentives such as tax discounts and exemptions, and insurance premium support are some of the other incentives available. TUBITAK which implements many sub-programs under its R&D support scheme, a specific focus is made for SMEs. More specifically for SMEs, KOSGEB provides different supports for different purposes such as, bank credit interest support, consultancy and training, entrepreneurship and international relations, etc [6].

Some of the supports provided by KOSGEB, most of which were started in 2010, are believed to be used for cleaner production and/or environmental management related activities, if the applications and projects are formulized appropriately. Some examples to such supports with brief explanations are given below:

- SME Project Support Program: This is a general purpose support for the projects of SMEs relevant to several areas including production, management-organization, and marketing [37]. It is possible to utilize this support for environmental management and cleaner production type of projects.
- Cooperation – Collaboration Support Program: This program aims to promote SMEs to collaborate with each other for creating solutions for common problems or achieving resource saving and improving their competitive power [37]. It is possible to apply to this program for industrial ecology type of projects.
- R&D, Innovation and Industrial Application Support Program: This program aims to support R&D and innovative applications of SMEs. This is applicable for environmental management and cleaner production related initiatives as well.

It is indicated by KOSGEB that, 5% of the 3.732 textile companies recorded in KOSGEB's database have benefitted from the support programs which started in 2010 within the period of 2010-2011. Of these companies, 35% are micro, 37% are small and 28% are medium scale enterprises. While the 32% of them all are engaged in fibre production, 68% are from textile production sector. Looking at the geographical distribution of these companies, it can be seen that 37% is from Marmara, 25% from Aegean and 10% is from Black Sea region, while the rest 28% is from other regions. Only 2 of the companies have benefitted from the R&D, Innovation and Industrial Application Support Program [38]. These statistics give an idea about the profile of the SMEs in the textile industry, particularly for those benefitting from the support programs. This reveals the low capacity of companies in terms of R&D and innovation in general and relatively low percentage of the eastern and south-eastern regions of Turkey (including the target region of this study), as far as the geographical distribution of the textile companies benefitting from the KOSGEB supports are concerned.

The SANTEZ Program implemented by Ministry of Science, Industry and Technology, aims to promote university-industry cooperation and provide solutions for industry's R&D based needs through the scientific approach of university-industry cooperation. This program provides an opportunity for the students in universities to carry out their thesis studies in order to be applied directly in the industry. This program seems to be suitable for cleaner production related applications as well through which university based know how on cleaner production is transferred into the industrial processes, also for the textile sector. Looking at the list of 2011 projects accepted for SANTEZ program, it can be seen that 3 textile companies, independent of the project topic, are present among 108 projects. This also shows the relatively low R&D related cooperation sought for by the companies in textile industry.

Ministry of Economy (MOE), under its mission of supporting exports and helping the companies in acquiring the necessary certifications, provides supports for meeting the expenditures of ISO 9000, ISO 14000, CE sign and other quality and environment related certifications as well as the laboratory analyses. This is a direct support for environmental management also enhancing cleaner production indirectly [6].

These supports are based on the "Communiqué of Supporting Environmental Expenses" numbered 97/5 which has been prepared in accordance with the rules of World Trade Organization. MOE underlines the significance of the textile industry for Turkey in terms of the relevant export level. Hence the sector can benefit from Ministry's support programs mentioned above as well as the Turquality supports [39]. For textile industry, İstanbul Textile and Apparel Exporter Associations (İTKİB) receives and evaluates the applications for the above mentioned support programs. It is indicated by İTKİB representatives that the level of textile companies' benefitting from these support programs has been quite limited. An average of 50–60 companies per year, which is quite a low number, apply İTKİB for these supports [40]. This is an indication of the low level of interest and awareness in Turkish textile industry towards environment and export related supports.

As far as the regional development agencies are considered, no specific support for environmental management or cleaner production has been planned or implemented except for İzmir Development Agency which will be discussed in more detailed further on. For example İpekyolu Development Agency responsible for the Gaziantep, Adiyaman and Kilis, which has started its support programs in 2010, mainly focused on increasing employment through supporting new manufacturing machinery and on fostering industrial substructure in general [41]. However, it is believed that, such support programs could be used for environmental management and cleaner production relevant modernization or technology change investments.

Incentives Specific to Cleaner Production

TUBİTAK provides support for cleaner production by means of two research groups. "Processes for the prevention of environmental pollution before it is created" and "clean technologies" are two of the priority areas of Environment, Atmosphere, Earth and Marine Research Group (CAYDAG) and "studies for identification, control, prevention and

elimination of environmental pollution". These research groups (CAYDAG and TBAG) provide supports for cleaner production by means of various support programs of TUBITAK. These programs are, The Support Program for Scientific and Technological Research Projects (1001), Short-Term R&D Funding Program (1002), Support Program for Research Projects of Public Institutions (1007), Patent Application Promotion and Support Program (1008), Global Researcher Program (EVRENA) (1010), The Participation Program for International Scientific Research Projects (1011), The Support Program for the Initiative to Build Scientific and Technological Cooperation Networks and Platforms (1301) and National Young Researchers Career Development Program (Career Program) (3501) [6].

TTGV started a support program for environmental projects in 2006. The purpose of this program is to raise the awareness of industry for cleaner production as well as to enhance the environmental technologies market by supporting the demand side. In this respect, soft loan is provided for the "implementation projects" in the fields of environmental technologies (cleaner production), energy efficiency and renewable energy. TTGV contribution to the project is maximum 50% and the support amount is maximum 1 million USD. Company projects which are submitted as an application to the TTGV Environmental Support Program are assessed in accordance with the criteria such as; environmental rewards, financial feasibility, technology and innovation level, contribution of the use of local means and resources, network effect, and the contribution to the company's capacity (sustainability etc). In this context, so far support has been provided for different implementations such as waste recovery, water recovery, increases in raw-material consumption efficiency, increases in combustion system efficiency, optimization of cooling systems, waste heat recovery, energy monitoring and automation systems, improvements in steam systems and process optimization. These implementations have been made in different sectors including, but not limited to, the textile, food, ceramic, plastic, steel, and electricity production. Looking at the participation of the textile companies in these support programs, the ratio of the textile companies among all companies is approximately 15%, which is relatively a good ratio [42]. Compared to the relatively lower percentage of companies benefitting from R&D supports of KOSGEB, it may be inferred that implementation or investment type of projects have a higher priority for the sector rather than innovation and R&D.

As known, Regional Development Agencies implement different support programs at different periods, based on the regional plan and priorities defined. Although "environment" was not a topic to be defined as a priority, it was possible to "integrate" the environmental aspects into main priority areas with several perspectives such as sustainability, competitiveness, efficiency, etc [43]. İzmir Development Agency (IDA) has been the first and only agency who has implemented a SME Financial Support Program in 2008–2009 with a target of "improving the competitiveness of enterprises and increasing employment as well as promoting the production and consumption of clean and alternative energy resources and innovative activities". "Promotion of utilizing environmentally sound technologies and energies and changeover to cleaner production processes" were among the priorities of the program. Within this framework; the projects to apply for the support have to aim at least one of the following fields [6]:

- Capacity building for enterprise level environmental management,
- Enabling the usage of new environmental technologies in order to provide solutions for environmental problems arising as a result of production processes,
- Carrying out process changes so as to make production processes more environmentally sound,
- Improving energy efficiency in enterprises,
- Enabling clean energy production and consumption.

Looking at the sectoral priorities for the period 2009–2013, agriculture and agro-industry which also includes textile industry are among the key sectors defined. Hence, textile industry is one of the focus sectors of the above mentioned SME Financial Support Program. Although the analysis study of the impact created by the program is still going on, the participation ratio of textile industry within this program is anticipated roughly to be around 10% [43].

In the most recent support program of IDA, “environment” itself is one of the priorities defined as “environmental and energy technologies”. In this respect, for textile industry which is still one of the priority sectors in the same context, advanced manufacturing technologies as well as environmentally friendly technologies are supported through these programs. It is also indicated that textile industry is among the five top sectors in İzmir benefitting from the R&D incentives and there are some investments realized by the textile companies related to cleaner production [43]. It is quite interesting that in İzmir textile industry exhibits rather a different approach towards benefitting from R&D support and hence a better profile in terms of R&D capacity, compared to the overall picture in Turkey or SMEs. This maybe one of the factors leading to textile companies’ having already realized some cleaner production investments in İzmir.

Moreover, a new project has been started in İzmir with the initiative and financing of IDA, having TTGV as the implementing agency. The project is called as “Dissemination of Eco-efficiency (Cleaner Production) Applications in İzmir”. It will be implemented between October 2011 and October 2014. The objective of the project is to identify the existing framework conditions in the region in terms of cleaner production and, based on that, to carry out capacity building activities, pilot projects at industry level in the priority sectors. One of the major outcomes expected from the project will be the development of a new financial support program specific for cleaner production applications in cooperation with TTGV. It is believed to be a good example for other regional development agencies as well.

Within the framework of the energy related financial incentives, especially for energy efficiency, the grant program implemented under Energy Efficiency Law should be considered as an important support for the relevant applications. All industrial sectors, including textile manufacturing, having an annual energy consumption of 1.000 toe or more, are eligible for the support programs, namely the Efficiency Improvement Project Support (grant program) and the Voluntary Agreements. The relevant procedures and principles are regulated by the Regulation on Enhancement of Energy Efficiency in Energy Resources and Energy Use. Accordingly, the energy efficiency application projects with maximum 1 million TL budget and maximum repayment period of 5 years are supported by a certain percentage based on a calculation methodology. Industrial facilities can make a “voluntary agreement” with (GDRE) by capitulating reduction of energy density at a rate of at least 10% within the period of 3 years. 20% of energy costs of the facilities that fulfils the commitment are supported.

Based on the figures provided by General Directorate for Renewable Energy (GDRE)¹, grant agreements were signed with 25 industrial companies (32 projects) for energy efficiency improvement projects in 2009–2010. Among these companies 7 of them are from textile industry; this figure corresponds to 8 projects. In the voluntary agreements, totally 22 agreements were made 3 of which were from textile industry. It is indicated that the majority of the textile companies are located in Marmara Region and their fields of manufacturing are manufacturing of various types of fibres, textile production and finishing, etc [44]. These figures also show that the textile industry has relatively a higher tendency towards investment type of projects and energy efficiency may be one of the priorities for the sector. However eastern or south-eastern regions seem to fall behind in this picture, when compared to Marmara Region which withholds the majority. KOSGEB has additional supports for consultancy and auditing expenses of the SMEs for energy efficiency as well.

Meanwhile, bank loans for industry focus on renewable energy and energy efficiency concepts. Even though there are some developments about providing SMEs with loans for small investments, it is believed that SMEs might have difficulty in accessing to the loans for cleaner (sustainable) production investments. This is mainly due to the assurance requirements, high interest rates, etc. With the mechanisms like Credit Guarantee Fund, it is expected that these difficulties will be overcome and bank loans will efficiently be used in cleaner (sustainable) production activities [6].

General Directorate of Electrical Power Resources Survey and Development Administration (EIE) was closed in accordance with the Decree Law numbered 662 and dated 02.11.2011 and the relevant authority and responsibility were transferred to the newly established General Directorate of Renewable Energy under the Ministry of Energy and Natural Resources.

In the scope of State Aid applications, the investments which would enable the textile industry to move onto an environmentally friendly production structure will be encouraged [34].

As an observation from MOE representatives, textile exporters are ready to align themselves towards environmentally friendly production in accordance with EU standards, and seek for a better coordination among all relevant public institutions which provide financial supports for such activities [32].

c) Research, Development and Demonstration Activities

The project "R&D Activities on Cleaner Production Technologies to Manufacture Textiles without Disturbing the Ecological Balance" was the first project conducted on the subject in our country. This project was carried out by The Scientific and Technological Research Council of Turkey-Marmara Research Centre (TUBITAK-MRC) with the support of TTGV and consultancy of Danish Technological Institute. The activities of TUBITAK-MRC on the subject continued with projects such as "ZERO M- Sustainable Concept Towards A Zero Outflow Municipality" funded by the EU's FP 6 and several research activities and publications were done. Moreover, TUBITAK Science, Technology, Innovation and Strategies Department have been conducting research on relevant issues such as eco-innovation, eco-cities, etc.

Meanwhile in the Textile Technology Platform established in 17th December, 2004, some of the targets projected to be attained in 2020 are related with determining bio-materials and bio-technologies and environmentally friendly activities [34].

In 2009–2010, the Project of "Determination of The Framework Conditions and Research-Development Needs for the Dissemination of Cleaner (Sustainable) Production Applications in Turkey" was implemented by TTGV, on behalf of Ministry of Environment and Urbanization. In this project, the sub-sectors of the manufacturing industry in the country were subject to a prioritization process for cleaner production practices. The parameters used in this prioritization were water and energy consumption, amount of wastewater discharged, amount of solid waste and hazardous waste generated, air emissions, sectoral employment, export share and eligibility for cleaner (sustainable) production.

According to the results of this study, the top five high priority industrial sectors are as follows;

- Basic metal industry
- Manufacture of food products and beverages
- Manufacture of chemical and chemical products
- Manufacture of non-metallic mineral products
- Manufacture of textiles

According to the results of the project mentioned above, a number of recommendations were made for the dissemination of cleaner production activities in Turkey, within the framework of R&D, particularly considering the priority sectors, including textile industry, listed above. These recommendations make a focus on the need for funds to be created for R&D, commercialization and investment projects of the industry, in the areas of environmentally friendly products, eco-design, etc., which provides advantage in exporting industrial products. In addition to stressing on eco-innovation concept and need for demonstration projects, some specific R&D activities relevant to cleaner production have also been recommended.

The abovementioned necessities put forward in general and specifically for the predefined priority sectors are all applicable and should be considered for textile industry as well.

d) Training, Consultancy and Other Services

Based on the communications and interviews carried out with the institutions and some other additional information, some examples for the training, consultancy and other services available for textile producers are given below. The main focus while compiling the information is the cleaner production/environmental management related services for textile industry; however, some of the general type of services are also listed taking into consideration the possibilities of their application in cleaner production/environmental management related issues.

Public Institutions and Universities

Ministry of Environment and Urbanization, implements training activities regarding different environmental issues such as, training of the environment officers, training programs on water pollution, soil contamination and hazardous wastes. These training activities have been organized as a response to the requests from industries (mainly organized industrial zones) [32].

Ministry of Economy deals with the export/import, tax and similar problems of the textile sector and tries to provide solutions. Moreover, the ministry carries out studies for the compilation of sector related statistics within the framework of their fields of activity [39].

Meanwhile, EIE has been delivering energy management trainings for years for the industry and providing the energy managers with the relevant certificates. It is reported that since 1997 trainings were given to the staff of totally 156 textile companies. The trainings are currently ongoing. [44].

KOSGEB provides laboratory analysis services for SMEs. It is indicated that their laboratories have been renovated in 2009 and 2010 with new investments and addition of new devices. The portfolio of analyses carried out by KOSGEB laboratories includes chemical analyses, mechanical tests, metrology services, technical assessment and monitoring. In addition to that, KOSGEB operates a Textile Quality Control Testing Laboratory (TS EN ISO/ IEC 17025:2005 accredited) located in İkitelli, İstanbul, for providing the related laboratory services both for SMEs and big companies engaged in textile industry [36, 37].

Turkish Standards Institute (TSI) provides certification and training services in relation to Environmental Management System Standards (ISO 14000 series) as well as Energy Management System Standard (ISO 50001).

Regional Development Agencies carry out certain informative activities (meetings, seminars, etc.) in addition to analysis and reporting studies in relation to their financial support programs. Additionally, they try to improve the cooperation opportunities among the relevant institutions such as chambers, universities and other public institutions in order to enhance the regional development activities desired and develop new projects.

Based on the cleaner production related capacities and activities of the universities starting with METU and Boğaziçi University, provide publications, trainings, seminars, consultancy services, etc. for different stakeholders such as industry, government, etc. Several related courses have been offered in METU for the last 15 years.

NGOs, Associations, Chambers, Private Companies, Others

Based on its long years of experience and cooperation with national and international institutions, Technology Development Foundation of Turkey (TTGV) provides several types of services related to environmental management and cleaner production, such as consultancy, cleaner production assessment, training and situation analysis.

The Union of Chambers and Commodity Exchanges of Turkey (TOBB) represents all the chambers and commodity exchanges as well as the sectoral assemblies. The environmental directorate of TOBB coordinates the communications between the sectoral institutions and the governmental institutions. In case comments are required for a draft

environmental legislation from the sectors or other member associations, TOBB carries out all the necessary communications. There are 57 sectoral assemblies under TOBB one of which is Textile Sector Assembly.

Meanwhile, chambers of industry and commerce follow the environmental regulations and inform their members through various tools including meetings, seminars and announcements. An example is the Gaziantep Chamber of Commerce which informs its members regularly on the changes taking place in environmental legislations. They organize meetings on environmental issues, carry out communications when needed [46]. Gaziantep Chamber of Industry on the other hand, has the authority to issue incentive documents within the framework of investment incentive procedures explained in Section 6.4.2. They also provide information and consultancy for their members related to financial supports available for R&D, environmental and other projects. Gaziantep Chamber of Industry also follows the environmental legislation and the EU harmonization process and informs and consults its members. It tries to advise companies about their waste management activities, etc [36].

General Secretariat of İTKİB informs its member textile companies, related with the legislation revisions and makes announcements by bulletins and e-mails. For awareness raising purposes it organizes meetings and seminars on these topics for its members. In relation with support programs, announcements and dissemination activities, İTKİB works in cooperation with the Ministry of Economy and collaborates with institutions such as Turkish Clothing Manufacturers Association (TGSD), Turkish Textile Dyeing and Finishing Industrialists' Association (TTTSD) and Tuzla Organized Industrial Zone [40].

Organized Industrial Zones in general, provide training and other awareness raising type of services as well as informing the companies about the opportunities relevant to consultancy, certification or capacity building activities. They also organize meetings and make announcements to inform the companies on certain topics in cooperation with other regional institutions.

Energy efficiency consultancy companies provide the industrial companies including textile producers, with energy audit, consultancy and training services as well as feasibility studies and energy management practices. Similarly environmental consultancy companies provide environmental measurements and consultancy. Such a consultancy generally includes environmental management and legislative compliance related issues.

3. Conclusions

The aim of this study was to analyze the current environmental situation in Turkish textile industry with a special focus on the target region (Gaziantep, Kahramanmaraş, Malatya and Adıyaman) within the context of CSR approach. The study was based on the data collection and analyses related to environmental and cleaner production issues for the textile industry by means of literature review as well as a comprehensive survey developed and implemented accordingly. In this regard, a three scale analysis (micro, meso and macro) taking into account the SMEs capacities and awareness, standards and demands of large enterprises as well as the existing legislative framework, strategies, supports and incentives was conducted.

Micro Scale Analysis: Textile Producer Companies (SME)

- This study revealed that general environmental policies and management approaches are not established in most of the companies in the target region. 64% of all survey respondent companies in the target region are lack of clear visions and policies towards environmental sustainability.
- Companies are relatively good at complying with national regulations, getting external support from licensed environmental consultancy firms. However they are not taking "proactive" measures to adapt to potential regulations (e.g. EU harmonization process). In the target region, only 33% of companies are at desired level in terms of their perspectives on legislations.

- In terms of general waste management (solid waste disposal, wastewater treatment, etc.) even wet processing companies are rather good, 60% of them being at desired level. This situation can be explained with both legislative pressures and customer demands (e.g. CSR standards).
- The main environmental problem is related with resource efficiency and cleaner production. When compared to the companies from other regions of Turkey, companies in target region shows very low performances. Implementation of resource efficient technologies and effective monitoring/ management of resources/wastes are not developed in more than 75% of wet processing companies.
- Customer demands and market pressures force companies to produce ecological products (organic textiles, recycled fabrics, etc.). This situation raised their awareness about the environmental impacts of their products. In other words companies' focus is on environmentally friendly products rather than environmentally friendly production processes (resource efficient and cleaner production).

Meso Scale Analysis: Markets and Customer Relations

- Environmental management is seen by large enterprises (multinational corporations and Tier-1 companies) as a driver for competitiveness of their suppliers, the textile producers. Multinational corporations start getting either external technical support and/or employing professionals from environmental management field.
- The codes of conduct of large textile firms are signed with only main producers and their important subcontractors. The compliance audits are conducted accordingly only for the main producers and their important subcontractors.
- Multinational corporations started shifting their focus from checklist-type of evaluations to an approach where resource efficient and cleaner production (water/energy efficiency, waste minimization, etc.) applications prevail.
- Still the achievements of environmental activities/projects are limited to the approaches that large enterprises follow as part of their own CSR policies.
- Issues like emerging environmental management practices, the state-of-art R&D activities diminishing environmental impacts and international best practices other than supplier firms are not covered in these CSR policies. This situation hinders the scaling-up of their environmental activities/projects.

Macro Scale Analysis: Institutional Set-up and Environmental Governance

- The existing situation of resource efficiency and cleaner production in Turkey is not at a desired level in terms of policy, capacity and implementation. However, in recent years very important developments and achievements have taken place and several initiatives have started in this area, by the help of several national/international projects or programs.
- Particularly with the driving force of EU harmonization requirements, contemporary aspects of environmental management, namely cleaner production related approaches, have started to be included in the national regulations. However, framework legislation on cleaner production or a similar concept such as sustainable consumption and production is still lacking. Meanwhile for energy efficiency, as one of the aspects of cleaner production and resource efficiency, has a well-established legislative framework and related measures and activities are continued in an accelerated manner.
- A very important development is the recent adoption (December 2011) of the "Communiqué of Integrated Pollution Prevention and Control in Textile Sector". This regulation is bringing about critical requirements for the textile industry as well as providing opportunities to keep up with the contemporary approaches of environmental management including cleaner production.
- In terms of environmental issues, textile industry has been regarded as "one of the priority sectors in Turkey", in various studies and evaluations. Adoption of such a communiqué mentioned above firstly and only for textile industry, is a perfect indicator of this understanding at governmental level as well.
- There are several financial supports and incentives that are applicable for all industries for general type of R&D, export, investment, infrastructure, and etc. projects. These can be used for some environmental management

and cleaner production projects as well. Looking at the level of benefitting from these supports by the textile companies, it can be seen that they are not at desired level particularly for R&D and export supports. For SMEs and the target region particularly, this gap becomes more obvious. Textile companies are better at benefitting from investment and implementation (e.g. energy efficiency) related supports.

- In general regional support programs seem to attract industries' attention, including textile sector's, more than the others. In the target region, textile companies are one of those benefitting from such regional supports with highest ratio. In the target region, textile industry is regarded as one of priority sectors in terms of its economical contribution.
- Existing incentives and financial supports directly related with environmental management and cleaner production both at national and regional level are not sufficient. Although there are different types of supports provided by different institutions, coordination and integration among them does not exist.
- Institutions emphasized the importance of demonstration projects for the diffusion of cleaner production approach, which is critically necessary for textile industry where use and management of chemicals is one of the problematic areas in textile industry in addition to other major areas such as use of water and energy.
- As many institutions emphasized, there is a strong linkage between R&D and innovation capacity and potential for environmental management and cleaner production applications. Hence, the relatively low R&D activity in textile industry should be taken into consideration as a significant issue, in terms of the need for formulating related funding schemes.
- Although there are some projects/activities of various institutions (governmental institutions, universities, NGOs, etc.) regarding informative and technical assistance to textile producer companies in the environmental management and cleaner production area, they are far from being coherent to each other. This situation hinders far-reaching influence in the textile industry.
- Since the institutional capacities (even in the environmental consultancy firms) on cleaner production services are not developed, a critical mass cannot be reached to create a market of tailored cleaner production services to textile companies.





CSR and Labour

Chapter 4 Standards

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Prepared by ILO

This chapter will introduce the labour standards that companies are expected to observe as a part of CSR in textile industry. Guaranteeing decent work standards for the workers, compliance with the national and international labour standards is not only a crucial part of CSR but also constitutes a primary aspect of Millennium Development Goals, as companies become part of the solution to issues like poverty, regional inequalities and gender based discrepancies.

1. Labour Standards as Part of Corporate Social Responsibility in the Textile and Apparel Industry

The Textile and Apparel industry is one of the most important industries interrelated with supply chain management. It is a 600 billion dollar market globally in 2010 which is expected to grow to about 700 billion dollar by the year 2012 [1]. There are 50 – 60 million estimated people worldwide working in the Textile and Apparel Industry and China has remained the largest producer and exporter of apparel [2].

The industry can be characterized in two sections. One of them is a high-quality fashion industry which includes innovation, technology, relatively well paid workers and high degree of flexibility while the other one is mostly surrounded by the companies in developing countries where mainly female workers (unskilled) are employed [3]. It is a demand-pull-driven system where consumers shape what goods will be produced then the information flows from retail stores to distribution centres, apparel plants, textile plants and raw materials.

The Textile and Apparel industry is particularly challenging which can cause non-compliance issues because of its following characteristics; the industry is fast paced, seasonal, highly competitive, there is little loyalty (factories, countries). The industry is also price driven, labour intensive, involve many small players, complex supply chains, chemical processes, geographical shifts, international corporations, fast fashion and increasing number of collections each year.

Although it is the responsibility of the governments to guarantee the rights of workers and improve working conditions based on national labour laws and ILO international labour standards, private actors have become an active partner through private auditing systems and programs. Various social auditing, verification, certification systems and initiatives have been developed to improve the labour standards in Textile and Apparel Industry such as SA 8000 (Social Accountability Standard), Fair Labour Association (FLA), Fair Wear Foundation (FWF), Ethical Trading Initiative (ETI), Business Social Compliance Initiative (BSCI), the Clean Clothes Campaign. In many countries, labour unions, NGOs and consumer oriented campaigns draw attention of governments as well as international buyers to violations of labour rights and poor working conditions, particularly in supply chain in Textile and Apparel Industry. Clean Cloth Campaign which was also initiated in Turkey is one of the well-known and successful campaigns [4].

Trade unions also take some actions for gaining the rights of workers and improve working conditions like conducting projects, seminars, training etc. As a result of international pressure on companies, international buyers reviewed their CSR policies and adopted new programs with a view to reorganize their operations in different countries through their supply chains in line with international labour standards. For instance, companies such as H&M and Levis have forbidden the sandblasting process, Timberland has asked its supply chain to improve their labour standards as obligatory while Marks & Spencer has already started to give CSR trainings to its supply chain in respect to its sustainability strategy Plan A.

However, from the labour perspective, CSR has certain limitations as well. First of all, CSR is perceived as the responsibility of the companies which are in the public eye. Secondly, few large companies can control where all their products come from, which means that most of the companies can only reach their first production tier and cannot show concern for those further in the chain. Because it is hard to follow; most of the labourers in the latter chains cannot benefit from the improvement of the conditions. The third point is that large companies cause dilemma for the companies they work with by demanding from them to improve the social conditions while also ask them to cut down the costs. The fourth point is that if only one company asks to improve the labour standards from its supply chain and the other companies do not; then the supply chain can show resistance to change [5]. Therefore, building a solid collaboration in policy among the international buyers and companies is necessary to create a labour friendly environment throughout the supply chains. A good example of the collaboration of companies in global Textile and Apparel Industry is Sustainable Apparel Coalition which includes more than 30 companies such as Esprit and GAP. The companies plan a platform where the products would be assessed by their social and environmental performance.

This collaboration also combines the demand of the large companies in one pool and may ease the adaptation process for their supply chain [6]. Last but not least, CSR should not be a burden for SMEs; therefore it should be implemented in partnership with government and civil society in which labour unions and employers' organizations play a crucial role. In this respect the code of ethics can be prepared by taking support from different stakeholders in order to provide other labour standards as well.

2. A Review of the Labour Standards in the Textile and Apparel Industry in Turkey

2.1. The Situation of Labour in the Industry

Since the industry is mostly characterized by unregistered employment, there is no exact knowledge about the employment volume of the industry. According to Social Security Institution, 791.114 workers are registered in the companies of Textile and Apparel industry in 2011 [7]. Despite the estimation of the Turkish Statistic Institution which is 60 percent of the employment in the industry is registered; in direct contradiction, there is a strong belief of 2 million people working in the industry, which means 60 percent of the employees are working unregistered [8].

The scale of the workplace has a very important role in the insurance policy of labour. It is expected that large companies are more loyal to comply with the labour law than micro, small and medium size workplaces. Unfortunately, the industry is characterized mostly by SMEs. According to the Social Security Institution data, distribution of workplaces' numbers according to their scale is shown in Table 2. The table reflects a distinctive fact that 99 percent of workplaces are SMEs in Textile and Apparel industry.

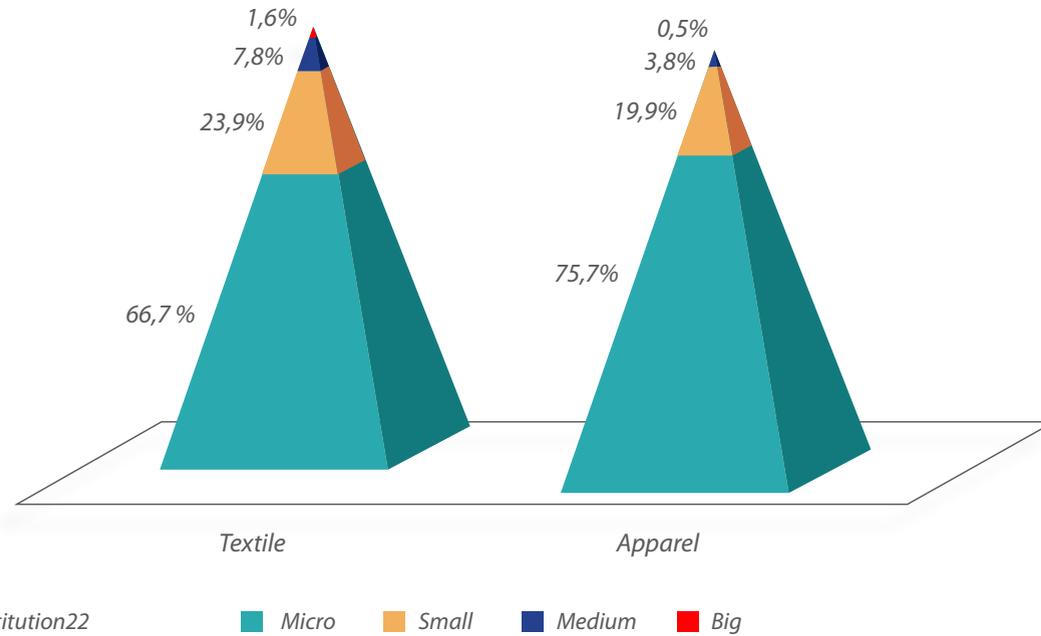
Table 2. Distribution of the Work Places in Textile and Apparel Industry by Scale in 2011

	Micro	Small	Medium	Big	Total
Textile	10.623	3.805	1.235	260	15.923
Apparel	22.820	5.997	1.158	164	30.139
Total	33.443	9.802	2.393	424	46.062

Source: Social Security Institution [7]

Additionally the number of insured labour in Textile and Apparel industry according to work place size is shown in Figure 1. The table indicates that 66,8 percent of textile labour and 79,6 percent of apparel workers are working for

Figure 1. Distribution of Insured Labour in Textile and Apparel Industry by Scale in 2011



Source: Social Security Institution22

■ Micro ■ Small ■ Medium ■ Big

SME's.

Despite the strong belief that the industry is dominated by female workers, it can clearly be seen from Table 3 that male workers are more common as a registered workforce in the Textile and Apparel Industry.

Table 3. Number of Insured Labour in Textile and Apparel Industry by Gender in 2011

	Textile	%	Apparel	%	Total	%
Male	272.447	70,7 %	219.525	54,1 %	491.973	62,2 %
Female	113.076	29,3 %	186.066	45,9 %	299.142	37,8 %
Total	385.523		405.591		791.114	

Source: Social Security Institution [7]

If the geographical distribution of the textile and apparel firms is analyzed, in 2011, 51% of textile and 68% of apparel workers are working for firms in the region of Marmara, especially from Istanbul and Bursa. 16% of textile and 13% of apparel workers are working for firms in the Aegean region, mainly from Denizli. 13% of textile workers are working for firms in the South-eastern region, especially from Gaziantep.

2.2. Problems of the Labour Force in the Industry

After export-oriented development policy implemented in 1980, Turkey's Textile and Apparel Industry has increasingly become a significant part of global textile and apparel production network and as a result of this the production volume has increased significantly. After the Customs Union agreement was signed in 1996, Textile and Apparel Industry has started to face trouble. After the entrance of China into the Global Arena in 2005 because of the disappearance of the quotas, Textile and Apparel Industry is now under extreme cost pressure from global competition. These pressures have forced producers of the industry to search a way to reduce partially the burden of high cost.

Additionally, the customers' buying behaviour has changed recently, since customers always want to see new products in shops, production-display time has been shortened by the producers by using flexible structure and producing the products to nearby countries. This situation makes Turkey a more desirable country because of its geographical closeness to EU countries and Russia.

Increasing cost pressure and need to supply flexible demand, has affected labours' working conditions negatively. Main social challenges for the labour in the Textile and Apparel Industry in Turkey can be categorized as unregistered employment and poor labour standards such as long working hours, poor health and safety conditions, unionization, low wages, female and child labour [9].

Although China is far behind Turkey regarding the social standards they have already taken one step to improve the conditions as there is pressure coming from their customers and also their government has planned a special program which would make them able to compete in the industry in the future, as in the Chinese case [10].

The biggest customer of the Turkish Textile and Apparel Industry is EU where the European customers give importance to quality, environmental friendly products and sustaining decent labour standards. Today there are SMEs in Turkey in Textile and Apparel Industry audited by large companies or external audit firms whether or not they adopt CSR application to improve the labour standards. They have already started to ask for the requirements from SMEs since it is not obligatory yet but will turn out to be obligatory in the near future.

a) Unregistered Work Force

Unregistered employment is one of the basic structural and continuing problems of the Turkish employment market. The effect of agriculture in total unregistered employment is very high. Avoidance of income tax withholding and other employment taxes, use of illegal foreign workers and child workers are the primary reasons for unregistered employment in the industries of the country other than agriculture. Beside this, especially in some industries which are under high global competitive pressure and the cost pressure, unregistered employment has increased gradually. While this is a disadvantage for the workers, government faces to lose its potential revenue and it demotivates the SMEs which comply the labour standards to keep the competition.

The share of general unregistered employment in Turkey was about 60 percent in the 80s. Because of the economic crisis which occurred in 1994 and 2001, it didn't fall as was expected. Between 2004 and 2011, it moved backward from 50 percent to 42 percent. In the same period, the share of unregistered employment in the industries other than agriculture has decreased 34 percent to 28 percent as well [11]. Despite this improvement at the level of unregistered employment, the share of unregistered employment in Turkey's total employment is distinctively higher than the other countries.

According to the data of 2008, unregistered employment is more common among people who are young, old and with low education level. Another important point is that as the scale of business increases, unregistered employment decreases [12].

If it is considered that the industry characterized by mostly SMEs and young, female and low education level labour, it is not surprising to expect high unregistered employment level within the industry. Basic reasons for this situation are mostly similar to reasons for the general unregistered employment. Additionally the industry characterized by home-made and atelier type of production, those types of production cause unregistered employment because of scale and lack of institutional identity. Moreover, Textile and Apparel Industry in Turkey has been under global competitive pressure ever since the 1980s. In 2010, textile exports from Turkey, ranked as 7th in the world textile exports and apparel exports from Turkey ranked as 4th in the world apparel exports. In order to keep competitive position and high cost cutting pressure, most of the textile firms are doing business with the firms

which prefer to give work to unregistered employees, so that the firms whose work is recorded lose their competitive power [13]. Moreover with the increase of the number of foreign workers in later years, it is considered that the number of unregistered employment is also rising.

Government and Social Audit Regarding Unregistered Employment

The law number 5510 on social insurance and universal health insurance, protect labour to work without insurance. According to the law, insurance rights and obligations start from the date of the beginning of work.

Administrative fine is foreseen for the employer who employ people without insurance and all unpaid insurance premiums and late payment interest is also charged.

Beside this protection by the law, recently there are many projects in order to improve awareness of the employees working with insurance such as "Promoting registered employment through social dialog and training project" which is supported by European Union. The applicant of the project which will last for 12 months is Öz-İplik-İş and the partner of the project is Chamber of Commerce and Industry of Malatya. Associate of the project is Yakınca Vocational High School of Malatya University. With the project registered employment on regional and industrial basis will be promoted, unregistered employment will be narrowed down and the regional disparities will be reduced. Main Activities of the project; designing a web site, creation of Textile and Apparel Industry coordination and monitoring council, creation of industrial social dialogue platform, field researches, written and visual publications, status determination works, training and informing activities, study visit. Via the web site, people can give information about unregistered employment [14].

Additionally, a telephone number which is "170" belongs to the Ministry of Labour and Social Security is also used for complaint for unregistered employment.

b) Long Working Hours and Payments for Overtime Working Hours

Working Time, Overtime, Overtime Payment, Penalties for Overtime in Turkish Labour Law

According to law number 4857, maximum working time of the regular work week is specified in article 63. In general terms, working time is forty-five hours maximum weekly. Unless the contrary has been decided, working time shall be divided equally over the days of the week worked at the establishment.

Any worker working over 45 hours works overtime: Upon the agreements of parties, the total working time can be allocated in different combinations to the working days, provided that working hours cannot exceed 11 hours a day. Over time cannot exceed 270 hours per year.

If overtime work is necessary in a workplace, the worker has to give consent in writing. If a worker does not accept to work overtime, he cannot be forced. However, if overtime is mentioned in the employment contract, the provisions of the contract will be effective.

Wages for each hour of overtime

Overtime payments shall be remunerated at one and a half times the normal hourly rate. In cases where the weekly working time has been set by contract at less than forty-five hours, work that exceeds the average weekly working time done in connection with the principles stated above and which may last only up to forty-five hours weekly is deemed to be extra working hours. For extra hours at work, each extra hour shall be remunerated at one and a quarter times the normal hourly rate. If the employee who has worked overtime or at extra hours so wishes, rather than receiving overtime pay he may use, as free time, one-hour and thirty minutes for each hour worked overtime and one hour and fifteen minutes for each extra hour worked. The employee shall use the free time to which he is entitled within six months, within his working time and without any deduction in his wages.

Offences and Penalties in Turkish Labour Law

Penalty in the case of violation of the working time is specified in article 41. Any employer who violates the working hours is considered to have infringed the law and accordingly is liable to pay a fine about 100 million for each employee.

Implementations of Overtime and Overtime Payment in Turkish Textile and Apparel Industry

Working Overtime is quite common in the Turkish Textile and Apparel Industry. Although working hours are 8 hours and overtime hours are 3 hours a day in existing labour law, workers are forced to work more than 11 hours a day. Turkey is far behind the European Union countries and in a low bench in ILO statistics; while comparatively in a better position than Far East countries, particularly China. There are some stereotyped and recent reasons for this situation.

General understanding of working hours within the country is very important stereotyped problem. A report by the ILO, entitled the "Decent Work Country Report", added that in Turkey more than half of the working people work more than 50 hours a week." Considering low wages and income levels, these long hours of working are regarded as somewhat normal and social parties presently have no agenda on shortening working hours," according to the report." [16]

There are some stereotyped problems of the industry because of the industrial structure. First of all, since the industry is labour intensive and mostly characterized by SMEs, competition is based on low labour costs, which is also a reason for the unregistered employment.

Additionally, since most of the employees are not recorded, they don't have to complain for overtime work and demand extra payment. Besides this, apprenticeship is quite common in atelier types of the production. According to Turkish Labour Law, apprentices don't work overtime, but many employees think that this law is very restrictive, for that reason they decide not to obey the law.

Recently problems of over time working are more common, because production&display time is getting shortened. In order to give quick response to international demand, people who work in little ateliers are under compulsion to work more than 11 hours a day. As a result of this competitive environment, 130 hours over time work in a month is very common in busy seasons [17]. Another implementation which results in not having extra payment from overtime work is work payment for per unit of production. Since outsourcing firms are unable to find permanent jobs and the price of outsourcing has been falling gradually, they could not set regular work arrangements, thus they prefer to use the system of "payment for each unit of production" for the labours. In this system, there is no guarantee for regular payment for the labours, if the firm receives orders, they work day and night, and otherwise they are unemployed people. By the way, employers only pay for labour as they work and they completely get rid of the obligations of payment for free times, lunch times and over time work.

Although it is common belief that the principles of overtime working are violated within the industry, it is not easy to prove those violations. First of all, over time working must be voluntary; however it is not easy to understand whether a worker is working voluntarily or compulsively. Short delivery times given to labourers as a target are a way of instigating compulsive work. Secondly, because of a large number of unregistered unemployment, many employers use double entry bookkeeping and in this way many over time workers are neglected.

c) Neglecting Health and Safety Conditions***Health and Safety Conditions in Turkish Labour Law***

According to law number 4857, occupational health and safety regulations are specified in articles 78 to 89. The Ministry of Labour and Social Security, after taking the opinion of the Ministry of Health, shall issue by-laws and

regulations, with a view to ensure the adoption of occupational health and safety measures in the establishments, to prevent work accidents and occupational diseases which may arise from the use of machinery, equipment and tools as well as the arrangement of working conditions for persons who must be protected because of their age, sex and special circumstances.

If any defects endangering the lives of employees are found to exist in the installations and arrangements, in the working methods and conditions or in the machinery and equipment, operations shall be stopped partly or completely or the establishment shall be closed until the danger is eliminated, following the decision taken by a five-member committee consisting of two labour inspectors authorized to carry out occupational health and safety inspections in establishments, an employee and an employer representative and the regional director of labour. Where a minimum of fifty employees are employed and permanent work is performed for more than six months, the employer shall set up an occupational health and safety board.

In establishments where a minimum fifty employees are employed, the employers are under the obligation, in order to meet the needs of employees for medical treatment which fall outside those provided for by the Social Insurance Organization, to employ one or more physicians at the establishment and set up a health unit with a view to protect the health of the employees, to take occupational health and safety measures and to provide first aid, urgent treatment and preventive health services depending on the number of employees and the risk factors involved.

Offences and Penalties in Turkish Labour Law

The employer or his representative shall be liable to a fine of fifty liras for each health and safety measure not taken if he fails to abide by the provisions prescribed in the regulation mentioned the first paragraph of Article 78 of the Act.

The employer or his representative shall be liable to a fine of five hundred liras for each of the following offences: if he acts contrary to the provisions of Article 77; if he opens an establishment without obtaining a permit for its establishment or operation as prescribed by the second paragraph of Article 78; if he, contrary to Article 79, resumes operations which have been stopped or reopens an establishment which has been closed down without being permitted to do so; if he fails to establish an occupational health and safety board in the establishment as set out in Article 80 or obstructs the operations or fails to enforce the decisions of such boards; if he, in contravention of Article 81, fails to employ a medical practitioner or to form a health unit in the establishment; and if he fails to employ engineers or technical staff for occupational safety in contravention of Article 82.

The employer or his representative shall be liable to a fine of five hundred liras if he employs, in contravention of Article 85, children under the age of sixteen in arduous and dangerous work or if he violates the age limits prescribed in the said Article.

The employer or his representative shall be liable to a fine of one hundred million liras for each employee involved if he fails to produce medical certificates for employees in accordance with Article 86 of this Act, and to a fine of one hundred million liras for each child involved if he does not procure medical certificates for children in accordance with Article 87.

The employer or his representative shall be liable to a fine of five hundred liras if he does not respect the conditions and procedures set out in the regulations mentioned in Article 88 and 89 of this Act.

Health and Safety Conditions in Turkish Textile and Apparel Industry

Despite occupational health and safety regulations in Turkish Labour Law, the Textile and Apparel Industry also faces challenges in health and safety issues. In general, the Industry is very labour-intensive and consists of many risk

factors in terms of business' health and safety. Due to the nature of work that requires attention at every stage of the work, labours work on material very close so that their eyes and hands are used intensively. Because of constantly working in the same position in wrong posture; absence of adjustable working desks and chairs, lighting deficiencies, poor conditions of thermal comfort, requirements to finish job according to production plan, the problems of back, waist, neck, and skeletal system may arise. Other important hazards are being deaf because of high noise volume, loss of limbs because of cutting devices, exposure to chemicals [18].

According to ILO statistics, "the incidence of fatal work accidents is rather high in Turkey." [16] Generally speaking, most of the textile and apparel companies are not considering the characteristics, risks and dangers associated with the production during the construction and installation stage of the workplaces, especially in the ateliers. Most workplaces are in lack of necessary air conditioning and aspiration installations in order to get rid of the temperature, dust, smoke and vapour during production. Moreover, to have a physician in the workplaces where a minimum fifty employees are employed is obligatory by the law, but those physicians are giving services to write prescription and intervene in the case of need more than protecting and preventing health of the employees and the risk factors involved [13].

Moreover, Turkey is one of the leading exporters of world denim so that denim garments have very important place in export of Turkish Woven Garments with a share of 30,7 percent [19]. Silicosis, which is one of the oldest occupational diseases, is an important issue for the denim workers during sandblasting process. Particularly from 2000 onwards, the sandblasting of denim was extremely widespread in the garment industry. At least eight to ten thousand workers have been employed in sandblasting workplaces, it is estimated that more than half of them affected but not aware of their illness, since the illness generally occurs after 20-30 years of exposure. Since March 2009 denim sandblasting has been banned in Turkey by the Ministry of Health. Nonetheless, the Ministry of Labour and Social Security has not taken any action in accordance with the decision of the Ministry of Health [20].

According to Statistics of the Social Security Institute, the Textile and Apparel Industry is in the 4th row after metal, construction, coal industries in terms of industrial injury. The most important hazards, in respect of the risk they have created, are: ergonomic hazards, noise, dust, thermal comfort, burn, and usage of cutting equipment (scissors etc.), usage of sewing machine needles, needles, air pollution and chemicals.

Figure3. The Number of Employment Injuries in Textile and Apparel Industry

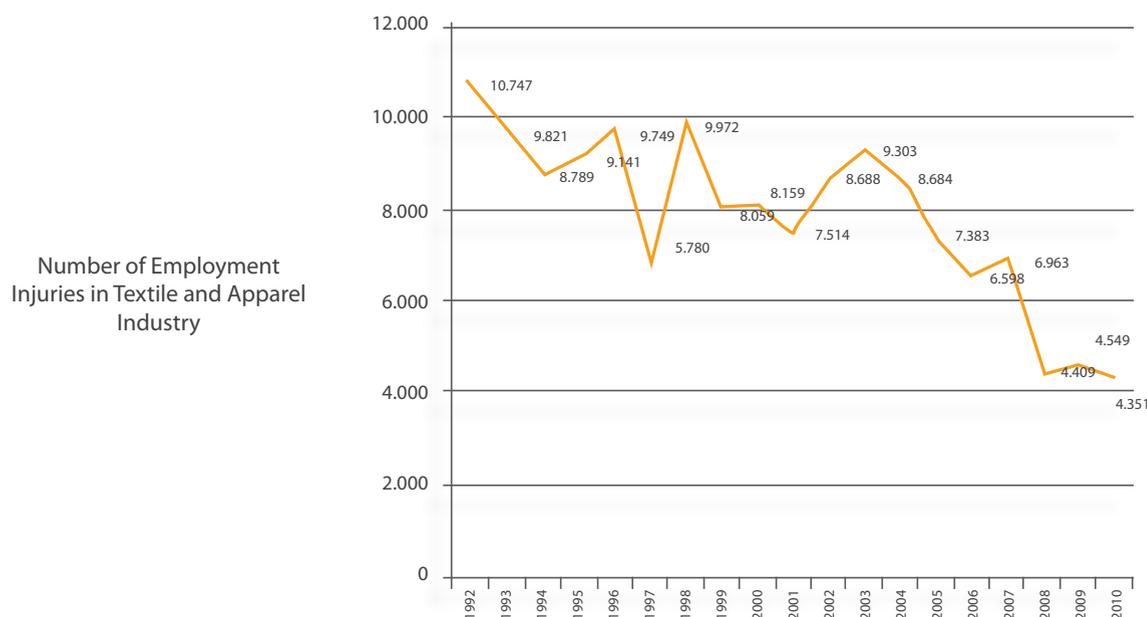
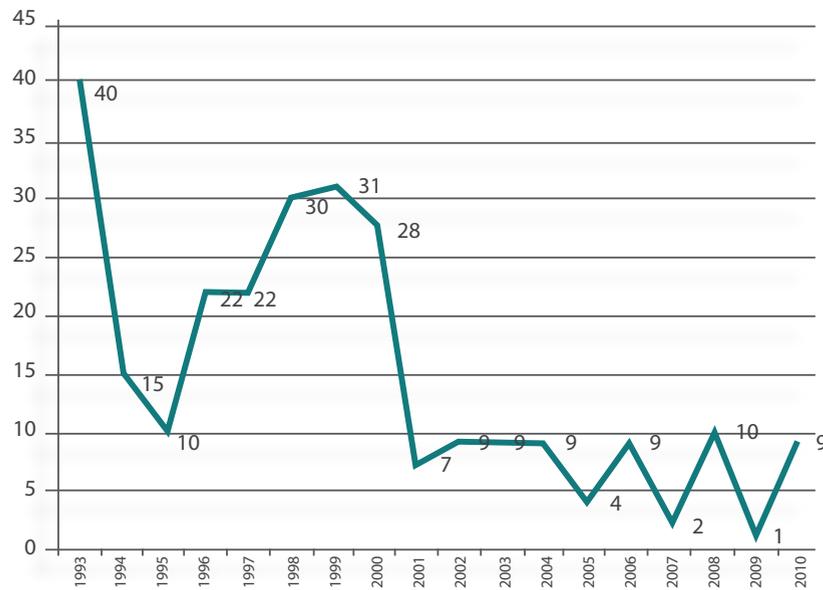


Figure 4. The Number of Occupational Diseases in Textile and Apparel Industry



Source: Statistical Database of Social Security Institute [7]

According to figures 3 and 4 the number of occupational disease has decreased from 40 to 9, the number of employment injuries has decreased from 10.747 to 4.351.

d) Problems associated with being a member of a Union

Labour unions are not as powerful in the Textile and Apparel industry as in the other industries in Turkey. Among the registered workers it is estimated that only 65 percent of them belong to a trade union [8]. According to Ministry of Labour and Social Security, the number of employee unions in the industry has increased from 8 to 11, whereas the number of employer unions in the industry has increased from 3 to 11 between 2001 and 2009. Name, subject and number of the members of the employee unions in the Textile and Apparel industry is shown in Table 4. It indicates that 98 percent of the total union members are member of the first three unions.

Unregistered employment is the main cause for non-unionization within the industry where workers don't have social security, are not members of a trade union and therefore lack collective bargaining. The other causes of the non-unionization can be explained as the lack of knowledge of workers about their rights, the bad impression of being a member of a union and the unwillingness of the owners of the SMEs regarding to decrease their power in competition.

According to a research made by Bosphorus University Social Politics Platform, 36 percent of respondents are afraid of being dismissed if they become a union member [21]. There are some examples which support this finding. For example, in Denizli which is called the capital city of the textile production of the country, the number of union members in the industry has decreased to 34 from four thousands between the late 1980s and 2011. This situation is explained by a union manager as follows: "Lately, employer unions are organized more than employee unions. If a worker who is also a union member is dismissed, other factories do not recruit him/her. Employees refrain from being a union member since they are afraid to lose their jobs. [22]"

Table 4. Unions, Subject and Number of the Members of the Unions in the Industry (2009)

No	Name	Subject	Number of Member	%
1	ÖZ İPLİK-İŞ	Workers of all weaving, spinning, knitting and clothing industry	89.612	17,5
2	TEKSİF	Workers of textile, knitting and clothing industry	338.551	66,0
3	GİYİM-İŞ	Workers of weaving, clothing, confection, yarn and dyeing industry	479	0,1
4	DOKU ÖR-İŞ	Workers of weaving and knitting industry	861	0,2
5	TÖBGİS	Workers of knitting, dyeing and yarn industry	598	0,1
6	TEKSTİL	Workers of textile	75.994	14,8
7	BATİS	Independent textile workers	5.181	1,0
8	DOKUMA İŞ	Workers of weaving, knitting, clothing and dyeing industry	569	0,1
9	TEKSTİL-SEN	Workers of textile, weaving, knitting and dyeing industry	441	0,1
10	DAYANIŞMA SEN	Workers of textile, weaving, knitting and yarn dyeing industry	11	0,0
11	TÜM TEKSTİL İŞ	Workers of all textile weaving and clothing	349	0,1
TOTAL			512.646	

Source: Database of Ministry of Labour and Social Security [23]

Additionally, the owners of the SMEs are unwilling to employ union members, in order to be more competitive. The reason for this is that common belief of employee unions increase the cost of labour. The closure of several textile firms in the global crisis due to the high wages of unionized workers is shown as verifying this belief.

e) Low Labour Cost

Another challenge the industry faces is the low labour costs. In order to be more competitive, labour costs are considerably lower in the Textile and Apparel industry than other industries in the country. According to data of Ministry of Labour and Social Security, average daily insurable earnings of the textile and apparel workers in 2010 are summarized below in Table 5. It can clearly be seen from the table that daily earnings of the textile workers versus apparel workers, males versus females are respectively high. More importantly, average daily insurable earnings in general are higher than the textile and apparel workers earnings in both gender. Similarly, according to gross wage index (base year 2005) which is prepared by Turkstat, the index value is 147,6 for textile and 156,6 for apparel, whereas it is 187,6 for general industry in 2011 [24].

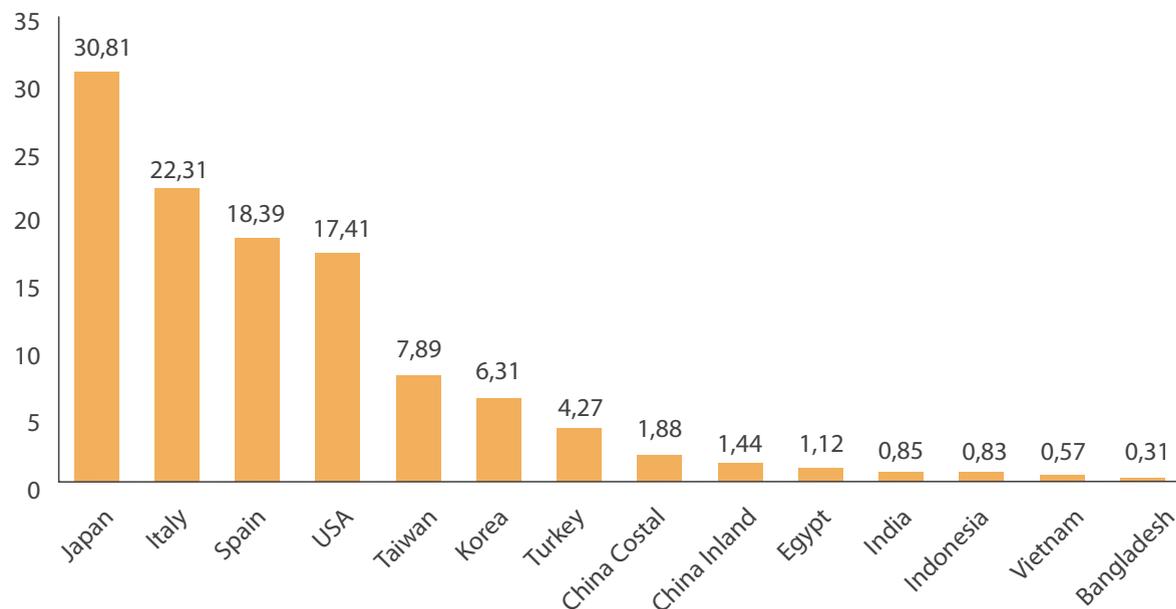
Turkey possesses also competitively priced labour in global arena which is shown in Figure 5. While low labour costs seem as an advantage for international competition, it is not promising for the industry in long term as it creates poor labour standards and feeds the unregistered employment which gives harm to economy and society at large. All these qualifications of the industry prevent the industry to attract qualified labour and causes to prevent shifting of low price strategy of the industry to a high quality, technical products phase.

Table 5. Average Daily Insurable Earnings in Textile and Apparel Industry by Gender (TL)

	Female	Male	Industry Total
Textile	31,43	33,69	33,08
Apparel	29,98	30,80	30,43
General Total	43,49	43,36	43,39

Source: Ministry of Labour and Social Security, 2010 [25]

Figure 5. Primary Textile Labour Cost Comparisons by Country in 2008



Source: Werner International, 2008 [26]

Low labour cost reduces the cost of production, but unskilled labour is not in vogue. Rather there is demand for qualified human capital. Recently, the world apparel market has been more dynamic because of the need for quick response to customer demand, moreover customers want better quality for lower cost. Developing countries become more competitive by low labour cost, modern textile machinery and textile know how learned from developed countries. Costs of European textile and apparel manufacturers are higher than the other countries. The only way to compete with brands originated by Europe is supplying the best quality, innovative and designed products to the customers. Italy, which is still one of the world's leading exporters, has higher labour cost than China, India, Korea and Turkey, but the country still has important industry volume, since it sells high quality and design products. The other European countries, such as the United Kingdom may choose to produce good quality products at lower cost in neighbourhood countries or decide to produce low quality products in low cost countries such as China. Turkey has geographical, logistical advantages and also know-how has the advantage to be flexible in manufacturing and fast delivery [27].

As a result of these developments, whereas low wages were the main source of countries' comparative advantages, with the idea of working more qualified labour force; lately many countries have changed their way to compete. According to Werner International, growth in labour cost of textile in Turkey is one of the most relevant. It is 4,27 dollars for per hour, whereas it was 2,88 in 2005. Similarly, labour costs of Chinese Textile and Apparel Industry have exceeded those of many southeast Asian countries, according to IMF world economic outlook database it has increased to 2,25 dollars per hour in 2010.

f) The Problems of Female Workers

As will be further elaborated in Chapter 5, according to the Social Security Institute, 11 percent of country's female workers are employed in the Textile and Apparel industry in 2011 [7]. At the same time, unregistered employment is very high within the industry. It is estimated that more than half of this unregistered employment belongs to females. Female workers are preferred in the industry because of the reasons as follows; cheap labour force, susceptibility to tasks that require skills and aesthetic, regularity, thoroughness, adaptability and patience.

According to the researches which are made to understand the problems of the female workers, the problems related to wages, unregistered employment, maternity and nursing leave, nursery right, unionization, working with managers from different gender are the basic problems of the female workers beside long working hours and not having overtime payment similar to the general industry workers.

First of all, there is a wage inequality between genders in both textile and apparel workers, it can clearly be seen from the average wages of the industry in Table 5. Female workers are considered as cheap labour because of social and traditional reasons. Their first role is in their house and their second role is to contribute to family budget. Because of this reason they are obliged to work in positions which are temporary, part-time and not requiring much skill. Return on this kind of jobs can be low. Secondly, since female workers first role is in their house, they prefer to work from home in order to manage their duties at home. This type of work is one of the basic reasons of the unregistered employment. Moreover, because of the social position of the female workers, they tolerate much more unregistered employment and also long working hours in recorded workplaces. According to a survey made in Balgat textile basin, many of the female workers are working 12 hours a day unaware of the limits of work and overtime [28]. Thirdly, most of the female workers do not know their rights about maternity and nursing leave, nursery and unionization. They are unaware of being a member of a union. According to another research conducted on the female workers of a textile factory in which 80 percent of the employees are members of a union, only 7 percent of the respondents have positive feelings about the factory union, 38 percent of them have negative feelings, and the others are not interested [29]. The basic reason behind this unawareness is the lack of time of the female workers to understand activities of the union and to be a part of activities of union. Finally, the female workers do not share some special problems, which will affect their work, with the male foreman or managers.

In order to get rid of problems of labours in the industry, the government and regulatory institutions must agree on equal wages to the genders, recorded female workforce and increase in awareness of women concerning unionization and their rights in working life.

Turkey has labour law in place and has signed the fundamental ILO conventions and other related international principles. On the other hand, the industry is dominated by formal and informal subcontractors within the country. Global brands demand and hire audit firms to make sure absence of unregistered employment, working overtime, wage inequalities between workers, compliance with occupational health and safety conditions from main producers or first degree manufacturers. On the other hand, there is no control on cutting, sewing, and ironing etc., subcontractors of first degree manufacturers which are called below stair atelier. Existing law and audit mechanisms fail to provide conditions of workers who work in those types of ateliers. There is an urgent need to improve the labour standards of these kinds of ateliers.

In this respect the voluntary initiatives of the large companies may offer a complementary area to improve the labour standards in Turkey where it provides a dialogue between business, civil society organizations and government. While the large companies and NGOs play an active role to improve the labour standards there are also good initiatives in Textile and Apparel Industry in Turkey such as the collaboration of Istanbul Chamber of Industry and Turkish Clothing Industry Association on preparing a social responsibility specification considering the ILO conventions and labour law to motivate CSR [30].

3. Findings and Evaluation

The findings of the project are analyzed under two parts; the first part is the analysis of the answers to the questionnaire and the second part is the summary and evaluation of the answers given to the interview. The first part is conducted to 100 SMEs in the pilot region of Malatya, Gaziantep, Adiyaman and Kahramanmaraş, in order to understand the labour standards of SMEs within the region. The questions surveyed are categorized under 6 sub-categories¹.

1. Working Conditions of Labour
2. Situation of Women Workers
3. Wage Policy and Contractual Obligations
4. Social Audit Experience
5. Compliance with National Regulations on Textile
6. Productivity

In second part, seven large national or multinational textile companies (buyers), and sixteen other relevant stakeholders such as labour unions, business organizations and public institutions particularly in the region, in Ankara and in Istanbul are interviewed; in order to add the stakeholders' perspective to the study.

3.1. The Findings Regarding ILO Standards, Social Audit and Productivity

Working Conditions

- Most of the companies do not prefer to employ the forced labour in the companies. 87 percent of companies completely agree on not to hire forced labour in the company. In addition to the survey results, individual experience shared by SME owners and managers proves that it is hard to explain the forced labour in legal terms, yet there are some cases of debt bondage and family suppress for girls/women to work and give salaries to the families.
- Most of the companies obey legal working hours in the case of overtime. 85 percent of companies completely agree on that legal working hours are not exceeded in case of overtime. Despite the result of the descriptive statistics, since the survey was not applied to labour, this result does not reflect views of labour and labour unions. In addition, according to the side surveys done with labour unions in the region, legal working hours are exceeded. It must also be underlined that a strong awareness concerning limitations forced by the regulations was observed during the research.
- 5,85 percent of the respondents completely agreed to employ workers with insurance, whereas not one of the respondents completely disagrees to the question. It is estimated that this result is misleading because of two reasons. First of all, respondents might mislead us because according to existing labour law, administrative fine is foreseen for the employers who employ people without insurance and this is also unethical behaviour which people does not want to share with others. Secondly, the questionnaires are applied only to registered companies.
- One of the dramatic results of the survey is regarding **existence of a labour union**. First of all, 77 percent of the respondents have answered the related question which asks the existence of labour unions operating in their company, whereas 23 percent preferred to not respond the question. Secondly, 61 percent of the surveyed SMEs shared that there is not any trade union organized in the factory, only 2,6 percent of the respondents shared that there is a union in their company. The results show the tendency to have a labour union in the companies is very low. Discussions with labour unions and SMEs stress the fact that there are some key and deep problems witnessed which are:
 - The lack of belief among SME owners on the necessity of a trade union,
 - There is a communication gap between labour unions and SME owners,
 - SMEs still perceive labour unions as a threat to production.

Nevertheless, the views of unions which will be reflected in detail via stakeholders' perspectives part of this chapter underlines that they advocate continuous production in the factory field which will sustain employability and labour livelihood.

The result of the surveys for 100 SMEs may not reflect the complete answers of SMEs which can be explained by various reasons. One reason for this situation is that the consolidated survey was prepared in detail by all the working groups which caused the survey to be overloaded and participants sometimes preferred to leave the questions unanswered. Another reason was that the right respondents were not asked to give an answer on behalf of SME; thus they were sometimes uncertain what to answer. Despite these explanations to missing answers of the respondents, questions were analyzed in consideration with the probability of holding back respondents' intentions and secret agendas via not answering the questions.

Another result of the study which indicates that labour power in SMEs is quite weak is related to collective bargaining since 36 percent of the respondents did not answer the related question and 77 percent of the answered surveys indicates that collective bargaining never conducted, whereas only for 3,1 percent of answered surveys **collective bargaining** is conducted, for the rest of it collective bargaining is rarely conducted as well.

- Regarding the **existence of health and safety conditions within the company**, the findings reflect that most of the SME owners and managers consider health and safety conditions of workers. Mod of the question is 5, since 73,1 percent of the SMEs guarantee the health and safety condition of workers. In addition, 20 percent shared that they partially guarantee the health and safety conditions. The results of the survey indicate that SMEs are highly aware of the health and safety conditions of workers; some provide special dresses for the workers such as masks, goggles and earflaps, trainings on occupational safety, use of machinery and first aid; some applies international HSE standards in compliance with their international customers and some recruit HSE staff to develop its strategy for the security and health conditions of working place. Regarding this, some initiatives are under legal requirement and some are voluntary. Voluntary initiatives are mostly seen in the companies which have international customers conducting social compliance mechanisms. However, the respondents of “partially guaranteed” is mostly providing trainings to labour, yet further and comprehensive Occupational Health and Safety (OSH) policies are not seen in such production facilities which can be evaluated as only fulfilling some minimum compulsory requirements.
- The most dramatic result of the survey depicts that more than 85 percent of the surveyed SMEs do not follow the legal requirement for the workers who are dismissed. In the meantime, more than 12 percent of the SMEs responded that they partially fulfil the requirements which are shared as payment of previous salaries, cancellation of debts etc. The results indicate a tendency of respondents not to pay severance payment, compensation and other rights to the dismissed workers.
- Most of the companies prefer to give opportunities to the workers regarding their participation in the decision making process. Mod of the question is 4 and standard deviation is 1,1, this statistics also show high dispersion, since 41 percent of companies completely agree, 46 percent partially agree, 7 percent disagree and the rest is do not know.

Some of the key indicators of the survey are the communication, labour participation to decision making process, existence of labour committee and labour representatives. It is found that there are 3 common methodologies that SMEs use to enhance communication and labour representation.

The first methodology is the standard tool which enables a **“suggestion box”** at the production facility. This is accessible and responsive so that labourers can easily communicate their problems. Around 50 percent of the surveyed SMEs shares that workers use the “suggestion box” actively. Second and one of the most prevalent means of communication and representation is the **“section chief”** that acts as a mediator between workers and managers/owners to reflect the problems, suggestions and recommendations. Another prevailing methodology is for SMEs to communicate effectively and integrate labour into decision making processes. This enables workers to elect **“labour representatives”** among themselves. This methodology is widespread as a substitute to the trade union. This data is seen to be critical as most of the SMEs surveyed prefer “labour representatives” elected under their control to an independent trade union.

Finally, the last issue researched via surveys on working conditions of labour is the performance development of workers. The answers from surveyed SMEs prove that more than 83 percent organizes some training for the performance improvement, whereas 5 percent of them do not provide any training.

Situation of Female Workers

The situation of female workers was also at the centre of survey, since Textile and Apparel Industry recruit mass number of women. The first set of questions focused on gender equality structure of SMEs during recruitment

processed and during working time. These results depicts that there give close attention to gender equality during recruitment and working processes.

The cases in Kahramanmaraş and Adiyaman show that SMEs prefer female workers to male. They find female labour more efficient, skilled for textile work and disciplined compared to men labour. Male labour is also found to be discontinuous as men tend to quit a job to find better paid jobs. However, female are found to be more respectful to the factories which they work for and female pay attention to working conditions. If the working conditions are well provided female rarely tend to change or quit the job.

These results can be interpreted as most of female workers in the region preferring to work when they young are until they get married and most of male workers in the region think this kind of job as a temporary job which they can get during their youth.

The results are more ambiguous with regards to **the existence of special policies for female**. In compliance with this criterion SMEs are asked if they have special policies for women at work. The results are unique compared to other answers as the responses are nearly balanced among 5 choices. The narrative comments of SME owners and managers indicate that they do not have a special outlook for female workers. Only the SMEs that are under strong social standard audits of foreign customers develop some policies in regards to working hours, timing of extra hours, special vacations, health and children issues. Moreover, it is important to say that they do not have any single document regarding female workers.

The last aspect of the situation of women workers is on **equal payment conditions for the jobs done by female and male**. SMEs responses are more than 90 percent positive about equality in terms of payment ranges for women and men.

Wage Policy and Contractual Obligations

70 percent of the answered survey of SMEs indicated that they apply legal **contracts during recruitment process**. However, it is surprising that 30 percent still does not follow full requirement of legal contract during recruitment process which limits contractual obligations of a SME for labour. The views of SMEs who apply the contracts as a prerequisite underline the importance of contracts in compliance with compulsory requirement for insurance of the worker. It is shown that contractual terms make the hiring process more transparent and legal for SMEs that may face various legal cases. However, most of the SMEs showed that labour force is not aware of their rights, although some quoted that they organize some regular meetings by the company lawyer to share the labour rights with labour.

The second issue rose during the survey's **contractual obligations and the wage policy part is whether or not the employees are paid fully and on time**. The shared views reflect that 90 percent of SMEs pay the full salary and on time. However, the results show that there is still 10 percent who are not able to pay on time.

When the SMEs are asked why they are not able to pay the salaries on time, the answers are mostly on problems of payments coming from the customers. This result reflected problems of cash flow and corporate finance weakness of some SMEs. It is also underlined that the regulations that make payments of salaries to banking accounts compulsory. This resulted in more accountable labour – SME owner salary payment structure.

Another indicator regarding the wage is the level of minimum wage payments. The survey results show that more than 92 percent of the SMEs do not pay any amount less than minimum wage.

This might be a solution of strong regulation and audits brought by Ministry of Labour and Social Security to im-

plement minimum wage criteria in Turkey and regions. Companies surveyed are always aware of legal restrictions and their voluntary awareness to make labour motivated to get their rights at the national standards. On the other hand, it must be noted again, these are answers belong to recorded companies and based on the perceptions of owners, so that they do not reflect the situation in unregistered companies and the actual situation in recorded companies.

Social Audit Experience

Social Audit experience of SMEs at Textile and Apparel Industry was also researched and diverse comment and experience were shared by the SMEs which reflect the existence of social standard criteria for the factories. The SMEs in the region can be evaluated under three criteria:

- a. SMEs producing for an international brand or companies (the category A type SMEs)
- b. SMEs producing for national brands or companies (the category B type SMEs)
- c. SMEs that are working as small workshops for local producers

As a result, SMEs in Textile and Apparel Industry in the region have a different social audit experience under above mentioned categories.

SMEs producing for an international brand or companies, conduct social standards of the international company. The standards may range from taking some key ISO registrations to special standards of the company. In addition, the category A type SMEs are also being audited by social auditors of international companies in regards to quality of goods and social rights which include the working conditions, labour rights, taxation, compliance with regulations, use of chemical and other environmental standards.

Category A type companies share that their know-how increased and learned a lot through the social audits. It is also underlined that they made several investments to comply with these standards. SMEs consider these social standards as a compulsory issue. Hence, they kindly share that their main motivation is profit and if the international company does not put a prerequisite for social standards they quote that they may not follow them.

However, they also agree that social standards increased their profitability and recognition in the textile market. Hence, they are going to conduct the social standards as market and sales motivation. The issues of motivation of workers, the situation of the women workers, and wage policy etc. are seen as corporate social responsibility issues.

The standards that are mentioned during the interviews are shown below. This indicates that particularly category A type SMEs are well aware of social standards which is a key part of Corporate Social Responsibility in the Textile and Apparel Industry: The most used are ISO 14001 and ISO 9001. Beside these standards, some international companies have their own quality, social and technical standards. Thus, the tendency of companies is to comply only with the company they produce for, not necessarily with international standards. One of the expectations shared by SMEs is to have a single type social standard to comply with. Therefore, companies share that many international standards are often not useful and bring a burden of cost. They complain of paying too much on various standards. Thus, they believe that there is a need for development of a single standard in Textile and Apparel Industry.

Category B type companies are mainly focused on national standards which require audits by Ministry of Labour and Social Security, Ministry of Finance. However, the surveyed SMEs responses reveal that they are only aware of regulations on the registered employment and payments of salaries on time. The working conditions are not their first priority. Therefore, B category companies are more focused on government regulations instead of developing voluntary quality programs.

Final category SMEs are working as small workshops for local producers or local brands which are not produced

nationwide. Most of the SMEs under this category lack corporate management, production and development capacity. Their main motivation is financial sustainability, realizing the quality standard the customer requests and keeping the costs as low as possible. Answers of the interview show that in such SMEs registered working and having lunch support are as seen as baseline motivation and even a luxury. In addition, working conditions of some textile workshops are not healthy, yet there is no pressure from customers and government on this scale companies to develop their production conditions.

Compliance with National Regulations in Textile

Here, SMEs mainly shared the challenges they do face in following and adopting the national standards and regulations on social security, working conditions and wage policies. One of the main problems in the industry is the unbalanced situation between companies as some pay taxes and employ labour with all rights and some other companies do not.

Finally, the ones who comply with the rules and regulations cannot compete with the prices of non – complying ones. Therefore, the ones that are not complying are serving to unregistered economy and causing uneven competition. As the main motto of economy is equal competition, such unregistered economy based behaviour of companies causes prices to be lower, yet costly for the ones who comply with rules and regulations.

Another issue raised under this category is lack of qualified workers who will enable the company to adopt new technologies, lower costs and comply with the regulations. The main rationale behind this is that the qualified workers are more selective regarding the company; they are willing to work in terms of working conditions, rights and responsibilities. Nevertheless, one of the key problems in the region is finding skilled workers, which restrict companies to adopt social standards.

Another issue raised is heavy taxes and lack of sufficient incentives for Textile and Apparel Industry in the region. Particularly, Adiyaman with less production facilities and potential is under the same tax incentive category with Kayseri, one of the leading industrial cities of Central Anatolia. All SMEs complained about inequality among cities for investment incentives. Adiyaman, compared to Malatya, Gaziantep and Kahramanmaraş is a less developed city, yet has been put under the same category for incentives with Malatya, Gaziantep and Kahramanmaraş.

Productivity

Productivity related questions of the survey attempt to reveal the employee level of satisfaction, accession rates, discontinuity, skilled labour force, professional managers.

The first set of questions was related to **the level of satisfaction of employees**. The owners and managers of the SMEs perceive the level of employee satisfaction as positive and almost 60 percent of the SMEs surveyed expressed their full agreement on the statement. In addition almost 40 percent partially agree that the level of satisfaction by employees is sufficient. As a result, the mean value is 4,5 and mod is 5 for the question.

The result of question indicates that SMEs owners are satisfied with the conditions they provide. Their satisfaction of criteria is full payment of the salaries on time, provision of transportation, lunch and extra social assistance (food, child support etc.) and provision of tea breaks. On the other hand, it should be kept in mind that this positive result merely reflects the owners' and managers' view but not the workers' perspective.

One of the determinants revealed via the surveys is **higher rates of turnover among women workers**. Although the data indicates 50 percent of women turnover ratio, it is perceived and evaluated as high. Furthermore, accuracy of data is proved by the narrative results of the surveys, as Gaziantep has less women workers than Kahramanmaraş, Malatya and Adiyaman. Number of women workers particularly in Kahramanmaraş and Adiyaman are high and

Textile and Apparel Industry recruits most of its labour force from women. Problems regarding continuous employment among women caused by traditional issues; the family urges women workers to quit the job and go for rural or seasonal work with the family since women are not allowed to stay alone in the city when the family goes for rural work or seasonal work and they also usually work until they get married.

The turnover ratio of men is also similar to women's rates. Men usually approach unskilled jobs as in Textile and Apparel Industry as temporary jobs and do not take the job as a profession which causes low accession rates. However, the main reason is not the men's approach. One of the reasons of the problem appears to be companies. The companies do not provide many motivating job conditions for men, in terms of payment, career plan and performance development. Thus, men usually get into a job to cover problems of debt, support the family budget and for urgent cash flow problems.

Another data set shows **the absenteeism rates** to the works which are caused by health, family and motivation. The rates are still the same but compared to accession rates discontinuity rates have positive impacts. Around 50 percent of surveyed SMEs both men and women's continuity to work is sufficient. Yet, in terms of productivity this rate can be accepted as a problem.

In addition to the continuity rates productivity section also focused on recruitment policies of companies that reflect the human resources structure and strategy to develop it. **More than 90 percent say that the employment of skilled workers is a priority** but the employment market does not provide the required skilled workers. In addition, SMEs also criticize some of the İŞ-KUR (Employment Agency of Turkey) projects that aim to provide some level of skilled workers for companies. However, the beneficiaries from the Textile and Apparel Industry say that the workers coming through İŞ-KUR training programs are usually seeking desktop jobs instead of field and machine, factory based jobs. Regarding this, even supporting projects are not found efficient to be panacea to solve the unskilled workers problem and their integration to the labour market.

When the current situation is researched, whether skilled workers are working within the organization, the results are quite promising, as more than 85 percent of the SMEs have skilled workers. However, one of the limitations of the question set and interview on productivity is related to quality, role and power of the skilled workers within the organization. It should be asked how many of the workers are under skilled workers category.

Productivity per person ratio is the final result of the productivity category. Men are found to be less productive than women. More than 85 percent of the SMEs think that women are more productive.

3.2. The Stakeholders' Perspectives on the Labour Standards

This section is prepared in respect of the knowledge handle from the interviews with large national and multinational textile companies, labour unions, business organizations and public institutions particularly in the region, in Ankara and in Istanbul, in order to understand stakeholders' perspective regarding labour standards. Beside potential inputs, risks and diverse approaches of the Textile and Apparel Industry in the region and future prospects on registered employment and socially responsible production was also reflected on the stakeholder perspectives regarding labour standards. Below is the list of problematic areas that are defined by stakeholders:

- existence of green card system for poor people is seen as a burden to registered employment,
- prevalent acceptance of 12 working hours which does not comply with the legal 8 hours,
- problems as regards recruiting qualified workers,
- price burden imposed by clients,
- tax burden on manufacturer in compliance with labour law,
- local projects by İŞ-KUR(Employment Agency of Turkey) does not match with the needs of manufacturer and does not support labour needs of SMEs,

- negative perspectives on labour unions,
- limited access to marketing activities and international business opportunities and partnerships,
- long working years of labours at minimum age without any incentives and promotions which means that labours remain as unqualified workers for years without any promotions.
- limited accurate information on socially responsible manufacturing,
- lack of strict labour audits on working conditions and labour standards,

The interviewed stakeholders were keen to help the project activities in reflecting the limitations and potential in the region in the textile and apparel industry. They were also very helpful in finding the deep problems in labour standards and very open to implementation of labour standards objectively reflecting the current problems with their recommendation and solutions.

Labour Unions

Labour unions in the region surveyed complaints about the scarce number of members who pay attention to importance of labour unions. Labour unions are seen as a threat by the SMEs. This comment is not only shared by SMEs but also by labour unions. However, labour unions are trying hard to work in harmony with the owners. A list of problems regarding labour standards is as follows:

- a) Excessive Working Hours
- b) Salaries
- c) Forced Labour
- d) Union Rights
- e) Discrimination at Workplace
- f) Child Labour
- g) Lack of Labour Contracts
- h) Healthy and Safety Working Conditions

Labour unions advocate these issues to the company, local governments and national government. They also need to convince many workers who are not aware of their rights.

Though the labour unions can be viewed as key bodies in the region, the participation to trade union is very low and interest among SMEs is lower. In this sense, in order to stress the importance of labour unions to all stakeholders, there is a need for a raise in national awareness and training campaigns. More importantly, a communication campaign including higher level of government officials encourages companies and labour to be part of a trade union. It is clear that lack of communication and mutual prejudices between labour unions and companies will result in declining rates of unionization and weak labour unions in the region.

The data shows that more than 90 percent of surveyed SMEs does not have labour unions and are not willing to allow labour unions in their companies. However, their response to the question of CSR standards urged by international companies or a national regulation may lead them to initiate labour unions for the company. Some selected views shared by the heads of labour unions during the interviews are as follows:

They argue that labour unions are weakened, that amendments on new regulations in labour unions try to limit the role of labour unions as well as the number of the members of unions, that while the power and number of the members of the union were really good until 2000 it has since declined considerably, that even though the workers have representatives which are seen as bridges between union and employer, this representation system is imposed by the owners to replace labour unions. Hence, the worker representative system restricts the importance of labour unions. The unions also believe that the private sector does not want unions in their companies; that collective bargaining where salaries and working conditions, and whole range of issues such as food quality

transportation, working clothes, health and safety and other issues can be negotiated constitutes the major power of the unions. The unions also suggest that they suffer from the earlier bad reputation where unions destroyed the companies but that the unions of today want to protect the companies and businesses. Labour unions also suggest that workers need trainings on health and safety, working ethics, their rights and responsibilities which are only provided by labour unions. Unfortunately, however, workers are not free to become member of unions because they are under the risk of losing their jobs, as employers are in sympathy with labour unions which are seen as a threat for factories and companies. Finally, Green Card is a very problematic issue in making holders of a green card work unregistered. Therefore, in such cases, companies and labour agree on not registering to social security system, which allows the company not to pay tax and labour not to lose benefits of holding green card. This problem is very widespread in the region as card holders do not want to lose the benefits. However, the recent legislative change Legislative Number 6111 enables that, after losing their job, card holders can again get their green card rights. And green cards a being replaced by public insurance coverage for the poor.

However, because of the lack of dialogue between the labour unions and other stakeholders unions believe that there are significant prejudices against them. There are signs of improvement as well. Unregistered employment has reduced. Unions are much more attentive to keep the production running. This also shows that labour unions are aware of the past practices that resulted in labour loses and company conflict with some cases of stopping production. However, labour unions underline that they also did a self-evaluation to improve the capacity, service, strategy and manner of labour unions. Some unions evaluate EU process as a key development initiative to convert labour unions in compliance with their EU counterparts' standard. Labour unions are expected to develop their corporate structure. However, as the number of members to labour unions decrease dramatically in the region, there needs to be a special program for "promoting labour unions in the region" with a new strategic dialogue focus.

Business Organizations

The key business organizations in the region are the Chamber of Commerce and Industry, Development Agencies, Boards of Organizational Trade Zones and 2 unique initiatives in Kahramanmaraş and Adiyaman, namely Adiyaman Textile Clustering Association (ATEKS) and Kahramanmaraş Tailors and Readymade Producers Association.

The interviews with the business organizations show that the producers in the region are trying to develop more strategic vision. However, two initiatives in Adiyaman and Kahramanmaraş may be accepted as good practices of social responsibility in Textile and Apparel Industry which may then be organized as a CSR mechanism for socially responsible production. The Adiyaman initiative called ATEKS aims at convening responsible producers that comply with social responsibility standards including labour and working condition standards. 99 large companies are functioning under the umbrella of ATEKS. Only 2-3 of them export goods, while the rest works for domestic markets. According to the Chairman of ATEKS, in textile 85 percent of the total workers are women. This data shows the unique characteristic of Adiyaman. 95 percent of the workers from the companies under ATEKS have insurance and they are willing to develop CSR programs to differentiate the labour and social standards in Adiyaman.

The initiative in Kahramanmaraş is led by the Kahramanmaraş Tailors and Readymade Producers Association. The association is establishing a new production zone for small and medium size textile enterprises. They also try to create a cluster for apparel producers and tailors. Both of the clusters are designed with a focus on working conditions, labour standards and environmental responsibility. The new cluster will include 68 companies and 10 thousand employments are expected to be created. They also advocate a regional minimum wage as other business NGOs. Moreover, they underline the needs for a relationship between companies and education which they want to support via special trainings. They plan to establish a training centre within the new production zone.

Both initiatives indicate that the region has a potential in developing innovative solutions in Textile and Apparel Industry which serve for social standards. The business NGOs are well aware of the importance of working conditions

and labour standards which is accepted as prerequisite by some national and most of international companies. Regarding this, business NGOs approach the issue as a competitiveness problem and their attempts are to increase the competitiveness and quality of the production in their region. Hence, it may be recommended that such corporate initiative can be supported by some government and international development organization or private incentives to develop such clusters as a learning tool and centres of excellence.

Some other views expressed by the representatives of the business NGOs are summarized as follows:

- In order to increase the global competitiveness of Textile and Apparel Industry, quality and social compatibility are becoming important. Their quality in textile is over the world average, their price is fair, and they are working on delivering products but they have only recently met the social compliance criteria.
- Conscious consumers are considering the companies social standard programs. Consumers care about the approach of the companies to environment, child labour, working conditions, labour unions, disabilities, discrimination and gender issues.
- There are several audit mechanisms. Internal audit is used by international companies such as H&M, Marks & Spencer, Zara, Next and Levi's. Secondly, auditing firms are appointed by international firms and lastly the SEDEX-SMETA audits.
- They implement training programs regarding health and performance development.
- The second biggest problem is the lack of qualified workers.
- Workers have no work discipline.
- They deliver work ethics trainings.
- The collaboration between universities and industry should be increased.
- They are implementing several EU funded projects and one of them is related to the unregistered employment.
- Unregistered workers are mainly an issue of small producers; large companies do not have this problem.

Large Companies

Seven large companies have been interviewed in Istanbul in order to understand how they reflect their CSR strategies to their supply chain. Two of them are international companies, while the rest of them are national companies. Most of the companies are integrated companies which mainly export the brands originating in European Union countries. Four of them are having operations or working with the companies in the project region.

The companies have been asked about their supply chain policies, the selection criteria's of the companies in their supply chain, the purchasing decisions of their customers and which international standards they adapt in their supply chain. According to the answers given, one of the key areas to be mentioned is the driving motive of the large companies to adapt CSR. It is observed that the main driving motive was the pressure coming from their customers. CSR is a standard that they have to ask from their supply chain in order to stay in the business and meet the expectations of the customers. The companies interviewed mentioned that the exporting companies have more responsibility than the other companies operating nationally. They have to take one step forward beyond the National Labour Law and the international standards. Social audits regarding the supply chains of the companies are various.

The small companies operating in the supply chain have been audited by various stakeholders such as the large companies, the customers and by the public institutions. Most of the large companies warn the companies that operate under bad social conditions and they give them a chance to improve their social compliance by giving them some time. Most of the companies are aware of the lack of education in their supply chain regarding labour standards but none of them gives financial, technical, know how support to them in order to improve the social conditions. However, some of the companies are planning to do so in the near future.

The large companies which have a connection with one or more of the project region mentioned that there is a lack

of qualified labour in the area and to overcome this gap, they have to transfer labour from other areas. The same problem is also faced in the supply chain. Since there are no such companies that provide the materials, companies have to buy the materials from other region. This slows down the development of the project region, while increasing the cost of the large companies and causing more time to be spent.

Public Institutions

One of the key interviews was organized at Labour Inspection Board of the Ministry of Labour and Social Security who prepares, conducts and reports the company inspections. They have regional offices to make inspections in compliance with the law covering registered employment and working conditions. Their inspections are mostly focused on working conditions.

The social aspects of the inspections improved during the 2-3 years, a special directorate for disadvantaged groups is established under the ministry which gives more attention to youth, children, women and disabled citizens. They also conduct EU twinning projects to integrate the regulations and ministry focus to EU standards. The ministry accepts the Audit Council as the key department responsible for the social audits. The audits are conducted in compliance with the "Labour Law". They also have a survey on "working conditions" which is being implemented during the audits of labour. This provides a key data and views of workers concerning working conditions and other problems.

They also implement a mobbing survey and a special survey for women workers. Thus the Audit Council's task is based on surveys and company audits. They also wish to add trainings as another tool. In the meantime, Ministry of Labour and Social Security has published the "National Employment Strategy" which includes many targets and regulations on social and labour standards. It is also shared that social responsibility is considered to be a vision for the future prospect of the social standards.

Regarding this, the social audits and other social measures are expected to prevail via regulatory arrangements and plans of the audit council in order to train labour unions, companies and business NGOs regarding social standards, labour standards, working conditions and social responsibility. The surveyed auditors also shared that they were willing to indicate the profitability, productivity and efficiency results of conducting social responsibility, social standards and labour standards.

In this sense, they are open to cooperate to develop the capacity of social responsibility measures of all stakeholders via delivering partnership based trainings.

4. Conclusions and Recommendations

In conclusion, it must be underlined that the most important issue is a need for paradigm change related to labour conditions in the industry in order to make difference, create value and make it sustainable by implementing ILO conventions. The way of changing paradigm in the industry is closely related to change in mindset of all stakeholders related to labour conditions. It is recommended that stakeholders in the industry must consider the ways of revising current conditions and resolving issues in respect to have common benefit. They are also recommended to take action only in their responsibility area. By the way they could change the reality. The stakeholders' course on labour conditions in the industry change, if the following lines of conducts are adopted by the stakeholders. First of all, they must believe what they do; secondly, they must believe themselves, and they can do better for the whole community and for themselves simultaneously by creating a "real" win-win situation; thirdly, they must take responsibility of their existence for sustainability, and revise their mission according to this mindset in order

to gain sustainability; fourthly, they must make decisions for mutual benefit of all actors related with the decision area rather than solely their own benefit; finally, they must implement their actions regarding this consciousness and responsibility level for the sake of their sustainability, and for whole community at the same time. Starting from the needed paradigm change will enable to see the problems of labour conditions in the industry that can be an opportunity, rather than a problem, to make difference, create value and gain sustainable competitive advantage. That basically means once the stakeholders accept and see the fact that they have responsibility for themselves, to each other, and the whole community simultaneously, ILO conventions will not be a problem, they will be rather opportunity for a better world, innovation, wealth for everybody and sustainable competitiveness.

As a result of the surveys with SMEs operating in the pilot provinces, the interviews with specified stakeholders, including large companies, labour unions, associations, and the review of labour standards in Turkish Textile and Apparel Industry, it can be clearly inferred that main problems of the firms in the sample related ILO norms can be summarized as follows; unregistered workforce; problems related to working conditions and wage policies of SMEs and the lack of effective labour unions. Although results of the study cannot be generalized for the pilot provinces and Turkey in general, and should be taken as preliminary results, it can be said that the result may be taken as evidences of the situation in the industry in Turkey considering other studies that are in parallel with these results [27].

In order to address these problems developing and implementing labour policy to realize continuous development appears to be one of the key requirements of Textile and Apparel Industry in the project region. The demands from the SMEs regarding regional minimum wage policy, development agency plans to make related regions more competitive through human resources development and acquiring skilled workers are the key steps for implementing comprehensive labour policy and regional development. Secondly, according to the surveys with SMEs operating in the pilot provinces of the project and the interviews with specified stakeholders, the audit mechanism by government and large companies in this region are quite insufficient. Thus, increasing audits regarding the existence of unregistered workplaces and unregistered employment in recorded workplaces and monitoring the conformity of necessary working conditions and fair wage platform are strongly recommended to the government. Thirdly, designing training for all the stakeholders is a good tool for resolving the mentality of the stakeholders and realizing necessary paradigm change regarding labour conditions in the industry. Preparation of trainings concerning the new labour law, labour standards and awareness of the importance of Corporate Social Responsibility for labour, owners and managers of companies operating in the industry is recommended to government, business associations, large companies and labour unions. Thirdly, in order to stress the importance of labour unions to all stakeholders, there is a need to raise the national awareness and training campaigns. A communication campaign including higher level of government officials encouragement of companies and labour to be part of a labour union would be necessary.

Finally, a whole set of incentive mechanisms ranging from financial incentives for meeting social standards, R&D incentives, establishing awards mechanisms for socially responsible companies and converting some of the industrial zones to "Socially Responsible Production" units can not only improve the working conditions and labour standards in the region and help toward achieving Millennium Development Goals.





Chapter 5 Women Workers and the Textile and Clothing Industry in Turkey

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Prepared by ILO

Turkish Clothing Manufacturers Association (TGSD) prepared a report in 2007, titled *Horizon-2012: Roadmap for the Turkish ready-made clothing industry*, identified the possibility of relocating the sector to eastern provinces of Turkey in search of lower labour costs as the solution and emphasized the potential availability of women workers as the key factor in their choice of production location. They have also called on the government to cut the tax burden on the labour cost for employers and to offer subsidies on energy costs. The realisation of this prediction was the adoption of the National Strategy on Textile, Clothing and Leather Sector of Turkey in 2009, which encourages investments in less developed regions of Turkey, especially in the Southeast, prioritise the textiles and clothing sector for investments in this region. Following these attempts, there has been a flourishing of the textile and clothing sector in the region with a high potential of employment creation and export performance.

The integration of women's labour into the textile production in the region has been central to these strategies developed by the government and employers' organisation. Increasing women's share in the employment has been a significant target of the Turkish government but also decreasing gender disparity in the Turkish society is also a target to meet the Millennium Development Goals of United Nations. Improving gender equality through increasing women's share in paid employment, changing women's role in more vulnerable forms of employment, and in informal employment with its lack of benefits and security are among the targets of ILO and MDGs [1]. ILO is engaged in efforts to improve the status of women in working life and has produced various instruments including Conventions [2] and Decent Work Country Programmes¹ to raise women up to equal status with men all spheres of social life including working life. In 2009, ILO has signed a Memorandum of Understanding with the Ministry of Labour and Social Security to implement a national decent work programme in Turkey with a view or achieve the conditions of decent work agenda which includes promoting of women's employment and gender equality, among others². Therefore, it becomes more important to examine the role and situation of women workers in the emerging textile industry in the Southeast cities of Turkey.

In the main literature of women's work in exporting industries, many case studies and cross-country evidence have documented the association of export orientation with a rise in women's share of employment, especially in labour-intensive, low-skill, and standardized production processes. In Turkey, it is also observed that women's involvement in the exporting clothing industry is higher and mostly takes the form of informal and home-based work [3]. Thus, the purpose of the study is to investigate the role of women's labour in the textile and clothing industry in the cities of Gaziantep, Kahramanmaraş, Malatya and Adiyaman. The main characteristics of women's workers as well as the problems they experience during their employment will be highlighted. There will also be assessment of the potential of the industry to further absorb female labour and emerging issues that condition women's access to the textile and clothing employment in the region.

It is no doubt that women's labour is central to the sustainable development of the industry in the region. The main characteristic of women's work in the industry is their short-term employment until their marriage. Harsh working conditions, long-hours, low pay and informalisation tendencies are the reasons for women's short-term involvement in paid work. The industry fails to attract and retain married women's labour as there is no understanding of their needs of childcare and lacks the effective ways of communication with local and governmental authorities to develop suitable childcare facilities in factories or in local communities.

1- For further information on ILO Decent Work Programme please see <http://www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--en/index.htm>.

2- Please see <http://www.ilo.org/public/english/region/eurpro/ankara/info/memorandum.htm>

1. Women's Labour in Exporting Industries

In many regions of the world, women's work in exporting industries has been a centre of major interest since the early 1970s, and this interest overlaps with the worldwide trend of 'feminization of employment'. Although there is a great variation in the degrees and forms of women's work from country to country, there is a strong association between women's employment and production for exports. There are many case studies of women workers tried to illuminate the working conditions of women and whether women's work in industries helped to change gender-based inequalities between women and men.

Case studies and cross-country evidence have also documented the association of export orientation with a rise in women's share of employment, especially in labour-intensive, low-skill, standardized production processes [4]. Many scholars have focused on issues such as the impact of export-oriented production on labour force composition, the nature of the labour market, the gender division of labour, class consciousness, and relations within family structures. Exporting industries have taken advantage of and reinforced women's structurally subordinated position within the labour market and the family by adopting discriminatory hiring practices, paying women lower wages and placing them in repetitive, monotonous tasks with no job security or advancement opportunities. As a consequence of their low-ranking positions in factories, many of the tasks performed by women are not covered by health and safety regulations. Nor are women provided with insurance and retirement benefits [5].

The literature identifies the lower wage rates associated with female employment as being the key to the high and growing proportion of women in export-oriented manufacturing industry. Other explanations for the rise in female employment are attributed to perceptions of women's docility, subservience and manual dexterity [7]. Within this context, there has been a considerable documentation of the fact that rises in female employment have been largely concentrated among young single women [6]. Many case studies show that employers value the reliability, stability and flexibility of female workers relative to male workers, which translate into lower unit costs for female workers than for male workers [8]. Moreover, their findings generally point to a central question of whether the employment of women is an experience of liberation or of exploitation. While some analysts conclude that Third World women are exploited by global industrial production due to low wages that are even sometimes below the subsistence level of the worker's daily costs [9], others argue that women are better off with employment [10].

2. Female Employment in Turkey

In Turkey, however, despite the surge in export-orientation following the economic liberalisation policies of the 1980s we witness seemingly stagnant or slightly declining levels of recorded female labour force participation. The withdrawal from the labour force and the resultant low activity rates are the main characteristics of female employment in Turkey. In previous decades, Turkey has experienced the first stage of decline in female employment. In 1955, female labour force participation was 72 percent (Özar 1994), but this fell to 24,7 percent in 2010 (TURKSTAT 2010). This is a result of the joint effect of the rural-urban migration and the limited employment creation capacity of the Turkish economy. While moving from agricultural activities as unpaid family labourers, women became increasingly inactive in cities as the Turkish economy did not create enough jobs and patriarchal values placed constraints on women's mobility by limiting their move into the labour market.

Changing labour market trends have resulted in different employment patterns for men and women. While men were largely able to compensate for the fall in agricultural employment by taking up non-agricultural activities, women had to leave the labour market. But this withdrawal was 'voluntary' because women consider being a housewife in the city as a status upgrade compared to being an agricultural worker [11]. Thus, housewives constitute the largest category of economically inactive women accounting for 50 percent of the female working age population.

Women are disproportionately found in various categories of inactivity, such as discouraged workers, students, unemployed and 'housewives'. There is, in fact, a strong link between women's informal work and formal economic inactivity as research has shown that many women officially registered as 'housewives' can be found engaged in informal market activities [3]. Home-based work, domestic service, unpaid family work and traditional handicraft activities are prevalent forms of women's informal work.

Table 1: Female Activity and Employment Rates

	Female Population (+15) (000)	Female Labour Force Participation (%)	Employment (%)	Unemployment (%)	Non-agricultural employment (%)	Service Sector Employment (%)	Unregistered workers as % of non-agricultural employment	Housewives as % of female population
1988	17.085	34,3	30,6	10,6	23,2	14,3	27,9	51,9
1998	22.467	30,4	28,4	6,6	31,7	22,8	23,1	54,8
2008	25.855	24,5	21,6	11,6	57,9	42,2	28,9	47,1
2009	26.317	26	22,3	14,3	58,3	42,9	31,3	45,9
2010	26.740	27,6	24	13	57,6	43,2	30,7	45,6

Source: TURKSTAT (Household Labour Force Survey 1988-2010)

Table 1 reports the key aspects of women's economic activity and inactivity. The employment rate for women decreased from 30 percent to 28 percent between 1988 and 1998 and fell to 24 per cent in 2010. In line with this, female labour force participation decreased from 34 percent in 1988 to 27,6 percent in 2010 while inactive women—mostly housewives—as a percentage of the female population actually increased from 52 percent in 1988 to 55 percent in 1998 before declining to 45 percent in 2010. The share of service sector employment in the non-agricultural sector has been rising from 14,3 percent in 1988 to 43 percent in 2010. Clearly women's employment is shifting towards services but this sector is not generating enough employment to raise overall female employment levels.

High female inactivity rates coupled with unregistered informal work is another feature of women's activity in Turkey. Statistical evidence on the scale of informal employment in the early 2000s estimates that in 2006 there were 10.827.000 persons working informally compared to 11.503.000 persons with formal status³. Accordingly, 48,5 percent of total employment, 66 percent of women's employment and 42,3 percent of male employment is estimated to be outside of any system of social protection [12]. In non-agricultural employment, around 30 percent of employed women are unregistered and lack any social security coverage or protection. What is striking is that the growth rate of informal non-agricultural employment over the 2000–6 period is double the rate of growth in non-agricultural employment. In this period, men's non-agricultural employment grew by 15 percent while male non-agricultural informal employment increased by 31 percent. Exploring the same trend for women, we observe that while their non-agricultural employment grew by 30 percent, informal non-agricultural employment grew by 65 percent [3].

The informalisation of women's work all over the world has come hand in hand with a feminisation of employment that has been a partial result of the increasing casualisation of labour markets as a result of global economic restructuring. A similar trend of increasing use of women's informal work has been observed in many areas of urban Turkey by feminists and other scholars. Although women's labour is largely unacknowledged in Turkish society and unrecorded in the official statistics, and it appears that women's involvement in labour market activities is decreasing, Turkey constitutes as an exceptional case against other developing countries such as Latin America and Southeast Asian countries where the rates of female employment have been increasing with the implementation of export-oriented policies.

3- This data is from Household Labour Force Survey where TURKSTAT defines informal workers those work without a registration at the Social Security Institution (SGK). These workers are usually those doing wage employment in small workshops, own-account workers, casual workers, and unpaid family work."

A recent feature of female employment is the increasing unemployment rate. In fact, the female unemployment rate in 2010 overtook that of men standing at 13 percent compared to 11 percent for men. What is striking is that female unemployment is predominantly an urban problem as 84 percent of all unemployed women live in urban areas. For example, among unemployment rates of female high school graduates was 34 percent compared to 32 percent among female university graduates in 2009. These figures indicate the limited potential of education and training in preparing their students for employment. Examining the distribution of labour force by educational status, we find that in rural areas 21,4 percent of the female labour force were illiterate in 2009 and 66,5 percent were only primary school graduates. In urban areas, 4 percent of female labour force is illiterate, 40 percent consists of primary school graduates, 28 percent are graduates of high school or other equivalent education institutions and 28 percent are higher education graduates.

3. Globalisation of the Textile and Clothing Production in Turkey

With the neoliberal turn in economic policies in the early 1980s, the textile and clothing industry became one of Turkey's most important export industries. During the 1980–2000 period, Turkey's share of world ready-made clothing exports increased from 0,3 percent in 1980 to 3,3 percent in 2000, making it the fourth largest exporter of garments after China, the European Union, and Hong Kong [13]. In absolute terms, Turkey's exports grew more than four fold between 1990 and 2007, reaching US\$14 billion in 2007, when the country held its rank as the fourth largest exporter. The expansion of the industry is attributed to initial government support, the falling cost of labour, and the renewed capacity of the textile industry to support the rapid expansion in the manufacturing of ready-made garments [14].

It is evident that the textile industry is the driving force of Turkish economy with its capacity of gaining export income and employment creation. In 2010, the registered employment in the sector was 687 thousand according to the data from Social Security Institution. Considering the high number of informal work in the sector, this number is estimated to be around 2.5 million. There are 40 thousands firms operating in textile and clothing sector. The main centre of clothing and apparel manufacturers are in the Marmara and Aegean region, in cities such as Istanbul, Bursa, Tekirdağ and Çorlu. Textiles and raw materials are mostly produced in Istanbul, Izmir, Denizli, Bursa, Kahramanmaraş and Gaziantep.

Table 2: The export share of selected subsectors in manufacturing (%)

2011 (Jan-July)	2011	2010	2009	2008	2007	2006	2005
Ready-Made Clothing	13,61	12,66	12,95	13,89	13,88	16,28	17,11
Automotive industry	11,90	14,83	18,44	15,04	21,61	18,74	18,35
Electricity and Electronics	8,71	8,33	9,58	9,07	8,79	9,65	10,79
Machinery and Parts	6,72	5,96	5,65	6,46	5,43	5,32	3,80

Source: Turkish Exporters Assembly, <http://www.tim.org.tr/ihracat-ihracat-rakamlari-tablolar.html>

Ready-made clothing industry is the export champion of Turkey and it ranks the second biggest export earner after the automotive industry. Almost around 15 percent of all income driven from the exports comes from the ready-made clothing industry. After 2007, the automotive industry began to lose its strength as the leading export champion but the clothing industry still has its leading capacity in gaining export incomes.

4. Women's Work in Textile Industry

Turkey's export growth has not been associated with an increase in women's share of either the labour force or manufacturing employment [15]. Women's labour force participation in Turkey has continued its long-term decline, driven by the decline in rural women's labour force participation rate, and this trend was accompanied by only a weak rise in urban women's labour force participation rate. As a major source of employment, the share of women's employment in the textiles is higher than the national average of 25 percent, which stands at 37 percent of all workers in the textiles.

Table 3: Employment Rates in the Textile Industry (Thousand)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	1064	1056	1196	1171	1156	1176	1205	1150	1122
Textiles	475	496	585	553	455	432	470	407	408
Wearing Apparel	492	471	502	520	598	643	630	642	619
Leather	98	87	109	99	103	102	105	101	95
Men	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	705 (%66)	687 (%65)	719 (%60)	709 (%61)	709 (%61)	740 (%63)	759 (%63)	711 (%62)	703 (%63)
Textiles	346	343	363	346	267	276	302	260	268
Wearing Apparel	270	261	258	273	350	373	361	360	351
Leather	89	83	98	90	92	91	96	91	84
Women	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	359 (%34)	369 (%35)	477 (%40)	462 (%39)	447 (%39)	436 (%37)	446 (%37)	439 (%38)	419 (%37)
Textiles	129	154	222	207	188	156	168	147	140
Wearing Apparel	222	210	244	246	248	269	269	282	268
Leather	8	5	11	9	11	11	9	10	11

Source: TURKSTAT 2008

While the share of women's employment is higher in the textile than their average employment rate, women have a higher share among ready-made clothing and account over 40 percent of all clothing workers. It is also evident in the region of this study female employment rate is higher in those cities where clothing production has a greater share. The prime example is Adiyaman where women account almost 70 percent of all textile workers. This could even be higher if one considers women's home-based work related to textile work and other forms of women's informal work.

While conclusive evidence on informal employment trends in the garment industry is not available, it is highly likely that in Turkey, women have higher share in export-oriented textile work if one considers the women's work

in small workshops or at home under subcontracting arrangements. What is striking is that the growth rate of informal non-agricultural employment over the 2000–2006 period is double the rate of growth in non-agricultural employment. In this period, men's non-agricultural employment grew by 15 percent, while their non-agricultural informal employment increased by 31 percent. Exploring the same trend for women, we observe that while their non-agricultural employment grew by 30,6 percent, informal non-agricultural employment grew by 64,9 percent [12]. This can be explained through the trends in income inequality, wage growth, and unemployment in Turkey, that indicate that the forces pushing women into garment workshops and home-based garment work were strong in the 1990s and strengthened after 2000. As a result, it is highly likely that women in low-income groups are entering the labour market increasingly through informal jobs.

A flurry of studies from the late 1980s and 1990s suggest that pressures on family income underlie the growth of informal jobs among women. The increasing number of people living in urban areas has generated a growing demand for declining formal employment in Turkey, and this trend was topped with more and more households becoming dependent upon cash income drawn from urban jobs. Based on their 2000 fieldwork, Ayşe Buğra and Çağlar Keyder (2003) conclude that women and children are the main groups holding urban marginal jobs such as cleaning, garment work, and piecework, whereas men face the situation of declining employment opportunities, increasing unemployment, and deteriorating wage levels under the threat of eroding stable jobs. Even though these statistics indicate that women's informal work in Turkey is extensive and expanding, they are likely to be underestimated due to the conceptual gender biases and practical problems associated with data gathering. As in other developing countries, low-income women in Turkey tend to report themselves as housewives even if they also engage in home-based piecework or other forms of informal activities. Therefore, some of women's informal work activities in the clothing industry fail to be reflected in the official employment statistics.

5. The Textile and Clothing Sector and Women Workers in the Region

The role of the textile industry is distinct in industrial production in the region and became a major employer in recent years. This has been proved by a diagnostic UNIDO study [16]. In this study the textile and clothing is defined as the major field of activity in the region. Nearly 37% of all industrial companies in the region are active in this sector. 13% of industrial companies in Malatya, 25% of industrial companies in Adıyaman, 34% of industrial companies in Kahramanmaraş and 30% of industrial companies in Gaziantep are in textile and clothing industry. More than 69% of all formal registered jobs (91.790) have been created by the textile and clothing industry in the region. 35% of employment in Malatya and Adıyaman, 44% of employment in Kahramanmaraş and 42% of employment in Gaziantep are in textile and clothing industry.

The share of the region in the textile exports has been on the rise. In 2010, 11,4 percent of all export incomes of the textile industry was generated by the textile firms and factories in the region. Gaziantep is very strong in carpentry and in the textile raw materials together with Kahramanmaraş. These two cities make up almost 23 percent of all exports in all textile raw materials. The data also shows that the clothing export income has an insignificant share in the exports. However, the clothing firms in the region are subcontractors of other big firms in Istanbul or other cities and their product are mostly exported through the firms located in Istanbul. That is why their share in export may be misleading in clothing than the other textile sub-sectors.

Even the investment incentives play a major role in the flourishing of the industry in the region, however, the informal economy still prevails. Due to the role of subcontracting relations in the ready-made clothing industry, Kunt and Zobu (2011) recorded that almost all unregistered companies are in the clothing sector and acts as a

sub-contractor of registered regional or national (İstanbul, İzmir, Kayseri, Ankara) companies. Some of unregistered companies export the products (shirts, pants, suits etc) directly to Middle East Countries via shuttle trade. Unregistered companies are mostly located in Malatya (in Taştepe, Akpınar and Melikpınar districts), in Kahramanmaraş (in the city centre) and in Gaziantep (mostly in Avratpazarı and Karatarla district). Kunt and Zobu (2011) report that the number of unregistered companies is not significant in Adıyaman. This is due to the fact that the most of clothing firms in Adıyaman opened up with the support of investment incentives and they need to remain legal to get tax exemptions and other benefits from the state.

Female employment rates in non-agricultural work in the region range between from 9 percent to 17 percent whereas women have a larger role to play in agricultural production. Even though the numbers seem to be increasing in recent years, women make only a small portion of workers in non-agricultural activities. This is to say that women's labour force participation is very low in urban areas and women remain to be exposed housewives burden with childcare and household chores. When it is compared with the findings of Kunt and Zobu (2011) the share of women workers in the textile and clothing industry is much higher than the average of employment rates. The rate of women workers in the textile and clothing industry is calculated to be 24,4% in Gaziantep, 17,7% in Kahramanmaraş, 22,6% in Malatya, 71,8% in Adıyaman[16]. This shows that the rate of female employment in textile and clothing sector is higher than the rate of female employment in those cities. The female employment is 14,2 percent for Gaziantep and the rate of women workers in the sector is 24,4 percent, which is much higher than the average. Only Kahramanmaraş shows a similar activity rate for women in the average and the industry as there is only a few clothing firms employing mostly women and the rest of the industry is mostly textile factories of yarn and fabric making.

The low rate of female employment in the region is a result of patriarchal and cultural values attained to women's role in the society and of harsh working conditions in the industry through which women find it quite difficult the reconciliation family and work life. As figures show, in Gaziantep, female employment has been lower than the other cities. With the withdrawal of the clothing firms from the city, the opportunities for women's employment have been declining. Women are employed in the small-sweatshops of knitting or in the some specific manual jobs in the carpentry. However, in the special zones for industrial production, women are rarely found to be employed in these concentrated production areas. There are also home-based employment opportunities in textile related piecework (ornament and needle work of bride wear and other clothing) and the pistachio cracking which is a long-established women's work in the city.

In Kahramanmaraş, the textile production is mostly yarn and fabric and other textile products related to these two areas such as dying. There are few large scale clothing factories, specialised on men's wear, Atlas and Sanko. In these factories, women are employed, but women are not popular workers of small-scale workshops of garment production. Almost one third of the workforce in clothing factories is women but women are rarely found in informal small-scale garment production. Although the city has recorded massive growths of industrial production in the latest years and a growing demand for labour, there is a shortage labour in industrial areas, which is explained by slowing migration trends to the city centre.

In Malatya and Adıyaman, women make up a larger portion of the industrial force as these cities dominantly produce ready-made clothing. The Malatya's clothing production is shaped by the factories of TAHA textile and Çalık Holding establishments and they are usually large-scale integrated textile firms and adopted the latest technology. Adıyaman is more associated with the subcontracting clothing production that pushes the rate of women workers higher in the city. The city's clothing production is shaped by the returning Adıyaman entrepreneurs who used to run clothing ateliers in Istanbul. With an experienced garment making skills, these people return to Adıyaman to take the advantage of the governmental incentives and lower labour costs. These workshops work as the subcontracting firms of big famous brands sold in the world market such as H&M, and employ large number of female workers.

It is evident that the textile and clothing industry offers women employment opportunities in the region and women's involvement is larger in the clothing production. However, the production in the areas of technical textile and carpentry do not rely much on women's employment but mostly male dominated production areas. When a job becomes a male occupation it is really difficult to integrate women workforce into that area. This case is most visible in the industrial production zones in Gaziantep, where the most of city's industrial employment is taking place. Therefore, women are exclusively discriminated from these areas. Women only become visible workforce when there is more concentration of clothing production as in the case of Adiyaman.

6. Women Workers of the Industry

The interviews with women workers and other related parties have revealed a sketchy picture of the general characteristics of women's work in the textile and clothing sector. The age composition stands out as the most distinct feature of female employment in the industry. Young women between 17 and 25 are the prime supplier of labour for the textile and clothing industry. Thus, women's work is conceptualised as a short-term activity until their marriage. Single girls interviewed stated that they do not want to work after they get married. This is also conditioned by the fact that families have at least five children and with so many children it is really difficult for women to do paid work as well. There is also a silent agreement between employers and unmarried girls that they continue to work until their marriage or the latest their pregnancy. Women either leave their work prior to their marriage or they become redundant when they are pregnant. There were so many stories of women workers got fired when their pregnancy become visible. In the region, women employed until their marriage is a kind of rule that works with no exception. A young girl working in a big garment factory reports that "I don't want to continue working when I get married as I got this job because my father had an operation and unable to work. This is my contribution to my parents. But women don't work when they marry."

This rule is still relevant even in the cases of women become well integrated to working life. For example, a female employer said that in their factory there was a lady working for them such a long time but she quitted her work when she got married. It was a big loss for the establishment but her resignation was a kind of unwritten rule for both parties.

During the fieldwork of this research, many factories visited in four cities and all of them were formally operated large-scale establishments. Therefore, the education level of most women workers was high-school graduation. Many women find their job through İŞKUR's training activities. Women mentioned in the interviews that they went through a course for six months in their factory and registered as trainees before their actual employment started. After completing the course, the trainees got a textile certificate and started working. Trainees get a minimum wage for period and their wages and other taxes are paid by İŞKUR. During their training, the trainees are actually placed at positions where they would work after the course is completed. A girl voiced her experience of İŞ-KUR training course as follows:

"I participated at those employment guaranteed trainings of İŞ-Kur and it was for 6 months. When I was a trainee I did the same work I do now. Only difference is that my salary was paid by İŞ-KUR and at the end of the course I got a certificate."

This means that the firm get 'helpers'/workers during this time with no financial cost involved. They only need to commit that they will employ these trainees after the period of six month. In sum, the most of women workers have higher education levels and mostly are high school graduates.

In general, women are mostly employed in clothing factories. Although no strict segregation between male and

female tasks exists there are, however, some jobs performed by men and others by women. Sewing is done by both men and women with no specific gender base to it. The only requirement is to have the skills necessary to operate machinery. However, men dominate some departments such as the weaving and dyeing sections and ironing and cutting are more a male job. It was reported that the division that occurred between male and female was in departments other than the garment section. In the clothing factories, no strict division exists between male and female tasks in the garment section. The task of home-based work is exclusively designated for women. The major activities of women as home-based piece workers are the stitching of ornaments on garments.

In general, the only role for men related to home-based work is to act as demonstrators of tasks, for example how to trim the finished garment pieces and what type of hand-work a garment's design requires. In descriptive terms, women workers in the textile and clothing industry are young and stay in the industry for a few years and employed in mainly cloth making jobs. It is evident that women emerged as an attractive source of labour for employers with the development of the industry in the region. From the perspective of employers, attracting and keeping women in the industry is vital for the sustainability of the sector in the region as the success of the industry is mainly dependent upon high circulation of low cost labour. A manager in a textile factory mentioned women's traits as reasons of their high employment in the textiles;

"Women are seen more docile and hard workers than men. They also work for less. However, men have tendency to create problems, ask for more money and the absenteeism is more widespread among men. That's why employers want to employ more women in the textiles."

Thus, women are pictured as more suitable workers than men as they have 'natural' tendency towards garment making and women come across as docile and submissive workers. Men are seen tempered and can easily create trouble in workshops but women demand less and are easy to please financially. Every establishment visited during the fieldwork was in need of further female labour and kept an advert in their factories for new women recruits.

Some factors condition women's access to employment in the region. The most important factor is the establishment's prestige in the community. Working in some of these prestigious establishments is considered to be like a public sector employment. Gaining this prestige comes through having a foreman known to the community, regular payments of salaries and of taxes, and keeping a good relation with the community. For this reason, foremen usually attend wedding ceremonies of their workers and bring presents. All these factors encourage families to allow their girls to work in those firms. In addition to this, if there are other people from the relatives or from the community working at the same firm, then it is easier for women to gain consent for their employment.

Working conditions are serious obstacle for women's long-term employment in the textile and clothing industry. Long working hours and often overtime work are the main concern for families when they let their girls in paid employment. Families find it unreasonable and unsafe when their girls come back home at 1 or 2 am in the morning. They are mainly concerned with honour of their girls since the rumours are easily created about working girls and women.

The result of all these factors conditioning women's work in the sector is the short-term engagement of women in the textile and garment work. In average 2-3 years of employment is predicted for women. When the related training to get a manual worker into skilled worker is considered this is a very short time. The high turnover rate of women workers is a great loss for the industry, which also affects the productivity of a worker and may mean losing a worker when s/he has reached the optimum capacity and skill. The solution to this problem is to find answers to keep women workers longer in the industry or provide women's return after a few years of child bearing and raising.

Women workers of the textile industry of the region are generally young and employed for a few years before they

get married. When young girls accomplish their high school education the textile industry offers them a number of work opportunities. However, it is really difficult for women to get the consent of their families to work and there are many factors that condition women's access to the arena of paid work. Entering the world of marriage women workers generally quit their work and remain as housewives and mothers which results in the high turnover of women labour force in the industry. Sustaining and keeping women's labour in the industry require certain arrangement to be made to generate suitable working conditions for those married women with children.

7. Emerging Issues: Informalisation, Labour Shortages, Ideologies of Work, and Childcare Facilities

Sustainability of the industry in the region is heavily dependent on its ability to integrate cheaper forms of labour into production. In this regard, female labour appears to be an attractive form of supply for employers. However, there are some factors limiting women's access to the textile production, such as working conditions, informalisation, childcare responsibilities and local ideologies of working women. There are some issues that need to be highlighted as emerging in the region's textile production and affecting labour relations in the organisation of the textile and clothing industry. These are also important issues of female employment in the sector and dominate the patterns and forms of women's work. In the following section of the report, all these issues will be evaluated and presented how they work to have an effect on women's work in the industry.

Informalisation

The underlying success of the textile industry in the region is the investment incentives offered by the government to new factories and these incentives vary from allocating free-land to tax reductions in return of a number of formal employment created. This restricts informal employment in those establishments benefiting from the investment incentive and tax reduction. In most cases, the companies do not fulfil part of their liabilities that are related to social security obligations or tax duties. These firms are legal but act informally in terms of employment. In the region, most of registered and legal textile and clothing companies have unregistered workers. Almost 20 percent of registered employment is estimated to be unrecorded taking place in the registered companies. In this case, the employers do not have the necessary records; they are hidden in the shadows [16].

Informal employment is also relevant in those small-scale sweatshops and the most employees work under recorded. It is also mentioned during the interviews that people holding green cards refrain from going into formal employment as the fear of losing their benefits not only of green cards but also other forms of social aid gained through holding a green card. These benefits are often mentioned to be cash payments for children attending schools, coal aid during winter, cash aid from municipalities and other local administrative bodies. In provision of healthcare services, green cards holders also pay less contribution than a formal worker with a social security enrolment. With a fear of losing all these benefits people opt to work unrecorded.

In this regard, choosing to work informally seems to be a concern of male workers rather than that of women since women are not free agent of employment and their access to textile work is always conditioned to other factors such as finding a workplace where other relatives and neighbours work or an employer who is known to their families. If these conditions are met and women's labour is allowed for employment they usually stay in their original workplace and very unlikely to change their employment. This is to say that if they start their employment in a formal workshop they go on to work there until they are married and if this work is informal then they work as informal workers. However, informal employment is not an attractive option for women since small workshops are male dominated environments. Women refer to work in female friendly places that are generally larger scale, long established factories, such as SANKO, ATLAS etc.

There are different forms through which firms evade rules and regulations and generate informality. The most common type is longer working hours and a usual working day is around 10 to 12 hours a day. Even in a formal garment factory, workers usually start 7.20 in the morning and finish at 6 pm in the evening. This does not include over time and this kind of employment usually involves over time work. Informal workers work even longer hours and 6 days a week. The long hours of work is an important element impeding women's access to paid work in the region. Even having 8 hours-workday becomes an obstacle for women when married with a family responsibility, the employment opportunities involving working more than legal hours is a no-no zone for women living in those cities.

Under age workers are another face of informalisation in the region. It is reported that many garment factories in Adiyaman's small towns employ young girls whose age is below the national working age limit. As their payment is lower than an adult worker, employers prefer employing younger workers and it is common to find children working in small sweatshops. Although Turkey signed the ILO's conventions on child labour and also successfully completed the IPEC project it is still difficult to eliminate the use of child labour in the labour intensive industries such as textile and agriculture⁴. This situation summarised above suggests that efforts to create employment in general and employment for women in particular should focus on creating of jobs which comply with core labour standards⁵ and social security coverage as stated in the "Decent Work" Programme of the ILO.

Labour shortages, Labour turnover and Job satisfaction

The lack of skilled workers in the textile is the main concern of the employers in the region. Especially ready-made garment factories suffer from not obtaining high flows of qualified labour and from high turnover rates of workers. The interviewed managers of large-scale emphasised that there is always lack of workers, especially for women workers. They keep an advert in factories seeking women workers. In the cities of Kahramanmaraş, Malatya and Adiyaman where the garment sector is more dominant, the need for workers are more severe. Kahramanmaraş is the city where the unemployment rate is recorded to be the lowest as the İŞKUR confirmed that the unemployment in the city centre was around between 3 and 4 percent.

From the perspective of employees, the textile work is hard work with very low returns; even those went through training activities do not wish to remain in textiles. Long hours of work, low and irregular payments and no prospects of promotion make textile work an unappealing occupation.

Only those employment prospects in large-scale factories such SANKO and TAHA textile are popular among workers and they consider employment in them as a form of 'public' employment. Other than these 'prestigious' jobs, workers do not trust that their work will last long time. Women's work is already conditioned to be short-term until their marriage.

From the employers' perspective, workers easily moving between different workplaces are main consideration of the employers. Then if one does not want to lose the workforce then sometimes needs to tolerate workers absence and low work pace during work hours. As the region is well-known for its close-knit communities and circle of relatives, employers reported that some workers go to a firm together and stay there but when they leave they leave together which becomes a big obstacle to maintain a production line if one worker is lost so many others lost at the same time

4- The ILO's International Programme on the Elimination of Child Labour (IPEC) was created in 1992 with the overall goal of the progressive elimination of child labour, which was to be achieved through strengthening the capacity of countries to deal with the problem and promoting a worldwide movement to combat child labour. For further information on IPEC project please see <http://www.ilo.org/ipec/lang--en/index.htm>. For IPEC projects implemented by ILO Turkey Office please see <http://www.ilo.org/public/english/region/eurpro/ankara/areas/child.htm>

5- Core labour standards are a series of rules and principles regarding the minimum standards developed by the ILO and recognised by the international community for protecting basic labour rights. The core ILO labour standards are covered by eight ILO Conventions which are: Forced Labour Convention, No. 29 (1930), Freedom of Association and Protection of the Right to Organise Convention, No. 87 (1948), Right to Organise and Collective Bargaining Convention, No. 98 (1949), Equal Remuneration Convention, No. 100 (1951), Abolition of Forced Labour Convention, No. 105 (1957), Discrimination (Employment and Occupation) Convention, No. 111 (1958), Minimum Age Convention, No. 138 (1973) and Worst Forms of Child Labour Convention, No. 182 (1999). Turkey has ratified all core ILO Conventions.

Job satisfaction of workers is very low and work conditions are mentioned as the main reasons of why workers do not like to work in textiles. Dusty, hot, noisy and dirty working spaces are often the reasons of complaint for a desire to move to another occupation.

Power of discourse on women's work

During the interviews, it became clear how local communities the reasons of complaint for a women's work have an enormous impact on women's work in the region. This understanding is filtered through the power of discourse on how local women perceives those women workers in their own communities. This local discourse defines working girls as those who are trying to run away from parental and patriarchal control exerted over them at home. In these traditional societies, where even marriages are fixed between close kin, the contact between unrelated female and male is socially unacceptable and those crossing this line are punished by excluding from the community and networks. In such setting, women's paid work is seen unruly and as a way of breaking the rules of patriarchal order. Women's aim is not to make a living or anything in sort of financial gain or gaining experience but an act of breaking free from the constraints of patriarchal society. When conceptualised this way, women's work is not socially acceptable and only tolerated until women get married.

However, in some cases, married women continue to work. They feel under close scrutiny of their families and even their own colleagues. They are often interrogated by their male colleagues in such ways how their husbands let them work. That is why being a teacher or a civil servant is prestigious but working in a textile factory requires longer hours of work which is not suitable for a woman.

It is not easy to change cultural and patriarchal values that overshadow women's textile work in the region. This seems that this is only possible through increasing the prestige of textile work. This will in return shift the perception of the community about working women. Unless the textile work is a desirable employment offering women a good living standard in return of women's employment it is really hard to change the local discourse on women workers in the community, which has an immense impact on the pattern and form of women's employment

Childcare Facilities

Concerns over keeping women's work sustainable in the industry is highly related to attracting more married women into employment or keeping those in employment leaving their job upon their marriage. Then the question to be asked is why the industry cannot accommodate married women as workers. In Turkey, in an environment where there is no systematic public childcare policy, it is no surprise to see little state support for child care and very limited public facilities for those pre-school children. In 2007, only 16 percent of all children at the age of 3 and 7 attended nurseries and pre-school classrooms. Public sector provision covers 90 percent of all these children whereas only 7 percent is in the private sector care. The Ministry of National Education opens nurseries and pre-school classrooms for children aged between 4 and 6 years old. Those children cared for in nurseries and pre-school classrooms are over 3 years old and no data can be found concerning the care of children under 3 years old [17]. However, it is probable that care for the under 3s is mostly done at home by women as only a small number of private nurseries provide care for this age group, servicing only middle-or-upper middle class families. The absence of public support in childcare is a reflection of the state's perception of women's primary social role.

The region of the study is no different from the picture described above. Although the textile industry in the study cities are flourished in the industrial districts specially designed to industrial production and there is a protocol signed between two Ministries⁶ to open nurseries in these districts, none of the firms visited during the fieldwork had a nursery within their establishments. The most clothing firms have enough number of women working to operate a nursery but they told that it is too complicated for them to have one as they have no idea how to run it.

⁶- These Ministries are The Ministry of Family and Social Policy and the Ministry of Science, Industry and Technology, the date of protocol is 10 February 2012.

Needless to say, women with children find it very difficult to continue employment and many women expressed the difficulty of caring children while working and lack there is of childcare facilities which could only be met through informal care provided by other family members. This raises the issue of improving institutional care for children to enable mothers move into labour market activities.

8. Conclusions

The textile and clothing industry in the region of Gaziantep, Kahramanmaraş, Malatya and Adıyaman has gained importance with its share in exports and employment generation. The vitalisation of the industry was predicted in the reports of Turkish Clothing Manufacturers Association in 2007 and also supported by the programme of the National Strategy on Textile, Clothing and Leather Sector of Turkey in 2009 prepared by the office of Prime Ministry. Investment incentives, tax reduction and other incentives offered by the central government have been central to the development of the industry and to generation of employment. The effect of the incentives has been more visible in the location of the subsectors of the industry. For example, clothing is subsidised in Adıyaman and more dominant in this city whereas Gaziantep gets subsidies for technical textile and carpentry.

It is evident that the industry is the major employer in the region. According to Kunt and Zobu (2011), more than 69% of all formal registered jobs (91.790) have been created by the textile and clothing industry in the region. 35% of employment in Malatya and Adıyaman, 44% of employment in Kahramanmaraş and 42% of employment in Gaziantep are in textile and clothing industry. The industry is also a major employer for women in which women's participation rates higher than the average participation rates in their respective cities. The rate of women workers in the textile and clothing industry is calculated to be 24,4% in Gaziantep, 17,7% in Kahramanmaraş, 22,6% in Malatya, 71,8% in Adıyaman [16].

An examination of women workers in the industry shows that these women are young between 17 and 25 years old, have a high school education and stay in the industry a few years. The local community considers working women to be acting against the rule of patriarchal order and control and downgrades those involved in employment. Protecting women's and their families' honour is secured through women's behaviour and any women crossing the pattern of proper behaviour would be punished by being excluded from the community. While the community ideologies the women's work as an act of breaking free from the constraints of patriarchal control there are ways that women integrated into the production by generation women friendly work environment. It is usually justified as a form of financial support to family budget and having other family members employed in the same firm and being employed in a prestigious factory.

Working conditions of the textile and clothing industry are likely to be obstacle in having access to women's work. Long working hours, low and irregular payment and informalisation are factors impede women's employment in the industry. Due to these conditions of informality women find the textile work to be hard and have no better prospect for work in future. Since the informalisation has extended to be an integral part of formal factory production women's access and stay in the industry becomes more difficult. Even in the case of employment it is perceived to be only for a short term. For these reasons, it is necessary and crucial to improve working conditions in line with ILO decent work programme and international labour standards in textile and clothing industry in order to create a working environment respecting the core labour rights and increase the women's employment rates.





Lessons Learnt from Chapter 6 Business Models

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Prepared by İTKİB

Within the scope of the Harnessing Sustainable Linkages for SME's in Turkey's Textile Sector Joint Programme, "Business Models" report has been prepared in order review good practices of corporate social responsibility in textile and apparel manufacturing companies which are also strong suppliers of global brands. In this regard İTKİB has conducted the report and provided short summary of business models in this chapter reflecting corporate social responsibility practices of five manufacturing companies from Turkey.

The companies which are in this report like many others in textile industry in Turkey play important role in competitiveness of textile and apparel sector internationally and contribute to the increase of Turkish export market share globally. Due to their contribution to sustainable export goals of Turkey, likewise their contribution to the Millennium Development Goals through good examples of corporate social responsibility and practices of sustainable supply chain management, it is aimed to present and disseminate examples of these implementations and give insights to SMEs and inspire policy makers.

With this aim the Five Business Models Report has been prepared through interviews undertaken with five big manufacturing companies. As stated earlier scope of the report is providing good examples of corporate social responsibility implementations which are in line with compliance to UN Global Compact and contribution to Millennium Development Goals. To this end interviews and were structured in the light of these two main areas. Composition of the report has also substantially benefited from printed materials, reports, presentations and websites which were provided to the author.

In the light of the UN Global Compact and Millennium Development Goals companies were mainly asked to provide information and share their experience on supply chain management and their approach to realise sustainability through their practices involving **customers, employees, suppliers and environment** where impact in three pillars of Corporate Social Responsibility; People, Profit, Planet can be examined.

The chapter examines practices that are committed to align company operations and strategies with ten universally accepted principles of UN Global Compact in the areas of human rights, labour, environment and anti-corruption. Overall, the report presents different examples of how companies can;

- Adjust the ten principles in their business activities,
- Undertake actions in line with UN goals, including the Millennium Development Goals (MDGs)
- Utilize UN Global Compact management tools and resources, and the opportunity to engage in specialized work streams in the environmental, social and governance realms.

1. Company Profiles

Interviewed companies are reflecting different sectors of textile and clothing sector including spinning, fabric production, denim, home textiles and apparel. Companies are mainly established in Istanbul and their production plants close to Istanbul. As regards the number of employees interviewed it was determined that companies employ from 235 to 2500 employees.

Companies have wide range of products including children and women wear, formal and smart casual wear, denim, sportswear and yarn with the applications as spinning, weaving, dyeing and finishing.

The companies are all big exporters of Turkey and working with global leading brands including Marks & Spencer,

Reiss, Sainsbury's, Tesco, Debenhams, EDC, S.Oliver, Bestseller, Mango, River Island, Next, H&M, Massimo Dutti, Zara, Pull & Bear, Jules, Bershka, Gap, Mexx, S.Oliver, Top Shop, Forever. Mango, Zara, Benetton, H&M, Coop etc.

2. Human Rights and Labour

The study shows that all companies have their internal department of social compliance ensuring smooth implementation of working conditions rules and regulations. As global suppliers they have developed their own social compliance in line with global ethical principles and declared to its suppliers and customers. Within the scope of social compliance principles, companies evaluate and increase awareness of its suppliers in Turkey and in the world.

First priority of companies is giving the responsibility of all of employees to contribute developing a continuous, healthy and safe working environment. All employees are responsible for obeying the rules of health and safety, report all risks to their managers and ensure collaboration. Together with active participation of all of the workers, it is believed that the companies can avoid work accidents and protect against industrial diseases. It is common that companies are committed to;

- Obey current laws and legislations about health and safety,
- Identify risks and potential threats while implementing company processes and aim to eliminate threats in its source and reduce to acceptable levels and take risk precautions,
- Ready for emergency situations,
- Raise awareness of all employees and visitors on threats of processes and risks in working environment,
- Provide required resources to avoid work accidents, fires and threats to ensure safe working environment, train employees and develop company activities continuously to provide a better working environment.

Additionally, companies support all their employees to become a member of the Labour Union and activities based on collective labour agreement. Employees have rights to join a labour union in their business line.

Companies exclude forced labour and child labour practices. The companies do not employ anybody who is under the minimum working age and under age of 18. This is one of the most important policies that companies search in their suppliers and collaborators.

Overtime work is planned by the employees and conducted after the approval of management. The payment of the employees who worked overtime is calculated by legally identified ratios and this payment is done by reflecting it in the relevant month's payroll.

Either for employing people or for HR decisions in the working environment ethical background, religion, disabilities, gender, social status, being member of an association, political view or age are not reasons to get benefits and promotions. Any kind of discrimination is not allowed within the companies.

Interviewed companies have strong labour, health and safety practices supported with training programmes are periodically delivered to its employees. Some of the topics of delivered trainings are as follows:

- Hygiene Trainings
- Trainings on Earthquake, Fire Fighting
- Cancer and Avoiding Cancer, Diseases of Musculoskeletal System, Oral and Dental Health.
- Segregating Waste at Source
- First Aid Training

- Safety Procedures
- Social Compliance and Occupational Health and Safety and Basic Environmental Trainings
- Supplier Quality System Training
- Food Poisoning and Ways of Protection

Interviewed companies have OHSAS 18001⁷ and operate in line with UN Global Compact. Among five companies two have SA 8000 and one has UN Global Compact Agreement.

3. Environment

Interviewed companies pay substantial effort to increase environmental sustainability. To increase awareness on environment, companies primarily adopt their factories with environmental friendly technologies and production processes. The study shows that as global suppliers companies developed Environmental Management Systems. As part of this system companies take into account global environmental concerns and adopt internationally accepted regulations. As one of the steps towards environmental management systems it is seen that companies obtained Oeko-Tex Standard⁸ and REACH⁹ in order to meet customers demand for no risk to health textile products. Besides Oeko-Tex, it is common for all companies to have ISO 14001 Environmental Management Certificate¹⁰. It is also found that companies have Organic Cotton Production.

It won't be wrong to underlie that environment oriented approach is within the priorities of the companies in their integrated manufacturing plants. In line with the environmental sustainability priorities, companies are committed to;

- Obey current laws and legislations,
- Develop corporate behaviour for protecting environment,
- Develop effective treatment systems to avoid pollution by implementing waste management systems,
- Develop awareness of all its suppliers, stakeholders and employees on environment,
- Continuously follow and comply with the local legislation and customer code of conduct on environment and occupational health and safety,
- Control environment, health and safety risks by a proactive approach,
- Conduct training programmes in order to increase employee awareness about personal responsibilities on environment and occupational health and safety,
- Provide continual improvement by including the environmental and occupational health and safety objectives into company's strategic objectives,

Environmental priorities of the companies commonly focus on some major targets;

- Minimizing energy - water use,
- Reducing waste amount,
- Reducing process duration,
- Reducing natural gas consumption,

7- OHSAS 18001 is an international occupational health and safety management system specification.

8- The Oeko-Tex® Standard was introduced at the beginning of the 1990s as a response to the needs of the general public for textiles which posed no risk to health. "Poison in textiles" and other negative headlines were widespread at this time and indiscriminately branded all chemicals across the board used in textile manufacturing as negative and dangerous to health. For further information visit www.oeko-tex.com

9- REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances. The law entered into force on 1 June 2007. The aim of REACH is to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances.

10- The ISO 14000 family addresses various aspects of environmental management. It provides practical tools for companies and organizations looking to identify and control their environmental impact and constantly improve their environmental performance. ISO 14001:2004 and ISO 14004:2004 focus on environmental management systems.

- Recycling of wastes,
- Using of sustainable raw materials and auxiliaries,
- Keeping the carbon emission in acceptable limits.

Additionally the companies develop specific projects and apply different practices such as planting trees, collecting packaging waste, electronic waste and vegetable waste oil to recycle with employees and their families.

4. Commitment and Maximizing Efficiency in Supply Chain Management

Interviews with companies revealed that success is not by coincidence. The study shows that commonly all companies incorporate CSR in their business strategies and models from the day of establishment. Efficiency in supply chain management linked with CSR practices and primarily rose by the company leaders by setting their company values and vision embracing entire departments of the company, employees, suppliers and customers as well as the society. Some of the statements from company values are as follows:

- Contributing to national development,
- Respecting society and environment,
- Giving importance to education and continuous development,
- Providing satisfactory and enjoyable work environment.
- Customized services, fast service and high customer satisfaction,
- Widespread market network structured with effective price policies.
- Accepting education as one of the most important factors of development,
- Performing research and development works through systematic procedures,
- Producing on the basis of planned and systematic studies,
- Producing the desired product at the right time with the best approach,
- Adopting developing technology to products and services with the most accurate way for offering best service to customers at first,
- Providing service with the same quality to our customers, regardless of any difference,
- Using the most accurate energy with the most efficient manner for production,
- Supporting all the studies related with increasing efficiency in all processes,
- Claiming environment consciousness which started with our treatment facility and renew our facility where necessary, with adhering to today's conditions,
- Recognizing equal rights to employees regardless of their difference on the basis of religion, language, race, gender and thought,
- Giving education within the company in accordance with the rules of today, to get the best performance from employees,
- Being respectful to all rights of the employees,
- Improving employee satisfaction,

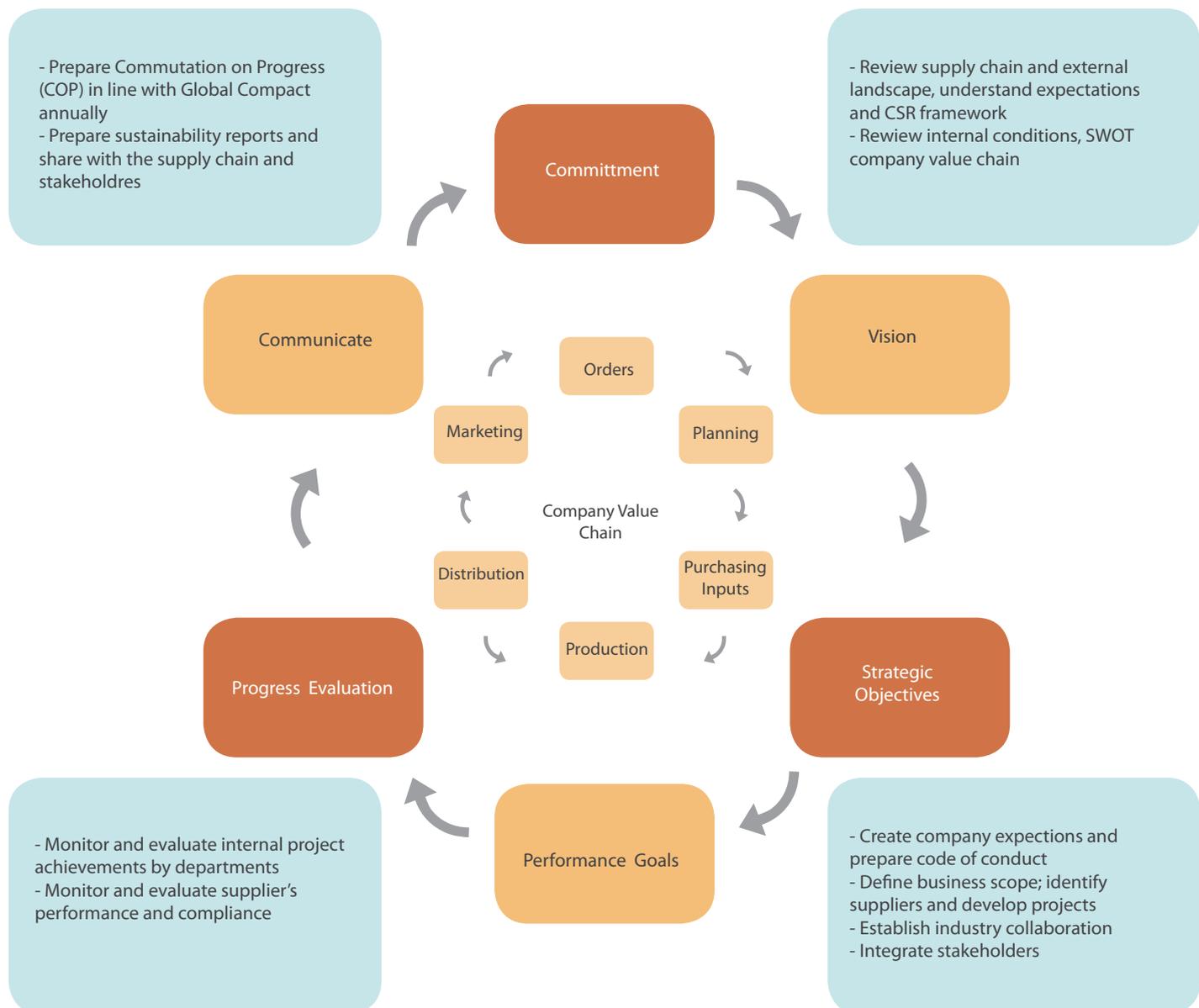
Understanding stakeholder's expectations and meeting these expectations is one of the most important aspects in supply chain sustainability. Furthermore understanding customer demand can shape business strategies ensuring maximum return provided for the company. Through meeting expectations of international brands companies have successfully integrated global standards into their business strategies and ensured sustainable product quality. To increase company share in international markets companies invested on establishing internal structures for supply chain sustainability, created code of conduct, reviewed business drivers and adopted value chain of the companies towards continuous improvement.

5. Conclusions

Regardless the size, sector or maturity, rules of competitiveness has changed at a pace and scale accelerating. These changes are applied same to all of the companies competing globally. Therefore more than ever leaders and companies need to understand how to manage drivers; people, partners and processes and other resources to deliver products and services which will create added value for their customers. Therefore, like in many other sectors in textile and apparel industry there is a need for understanding expectations of customers and stakeholders internationally.

Increasing number of companies improves their commitment to responsible business practices and paying more attention to their value chains and has efforts to re-organize business models from subsidies to suppliers. This is not only because of the regulations or legal obligations, but sustainable supply chain management provides more business return through embracing areas of corporate social responsibility and creating value for customers.

Integration of corporate social responsibility into company value chain



Supply chain sustainability is increasingly recognized as a key component of corporate responsibility. Managing the social, environmental and economic impacts, supply chains combating corruption, makes good business sense as well as being the right thing to do. In textile and apparel industry companies are willing to sustain, increase their market and increase profitability. Increase of profitability for a manufacturing company can be achieved by increasing added value to the product, reducing input costs and by increasing efficiency in production processes. Depending on what is aimed, strategy can be designed to cover improvement at each levels of company value chain.

Within this scope, vision of “to become a long term player in international supply chains” cannot be isolated from the idea of understanding corporate social responsibility and integration to business strategy connecting value chain activities of a company towards expected results.

6 STEPS for implementing supply chain sustainability programme in textile industry

STEP 1

**Review Business Drivers
SWOT of external and internal
environment**

- Review external risk factors, competitors and trends in the external environment of the company in textile industry. Identify treats and opportunities for the company. Identify expectations of potential customers and expectations of stakeholders, customers both at national and international level.
- Have an internal look into the company, work on the value chain and benchmark your company with your prior competitors. Undertake a SWOT analysis for your company.
- Understand international environment and corporate social responsibility framework. Review UN Global Compact. Review CSR implementations of big players in textile industry and as a supplier review company risks in line with customer expectations.
- Make an overview of what steps can be taken towards for being a player in textile supply chain.

STEP 2

**Set a clear vision
Integrate corporate social
responsibility into vision**

- Sustainability starts with establishing a vision where company values, objectives and way of meeting customer expectations are reflected in consideration with corporate social responsibility integration in textile industry.
- In an effective supply chain management clear vision will be helpful in evaluating the success of the efforts and in identifying areas for continues improvement. Having a clear vision and objectives for company provided direction for the strategy and helped company to improve towards supply chain sustainability.
- The vision should be an output of company leaders and management reflecting commitment and values.

STEP 3

**Strategy Design
Reflecting company
expectations through
codes of conduct**

- Without a strategy a vision statement or company operations would not be enough to be competitive.
- Understanding stakeholder’s expectations and meeting these expectations is one of the most important aspects in supply chain sustainability. Furthermore understanding customer demand can shape business strategies ensuring maximum return provided for the company.
- After solidifying the vision for supply chain sustainability, an important next step is to translate expectations into a clear set of guidelines that will provide direction to suppliers and employees.

STEP 4

**Set Performance Goals
Trace key activities
and people. Set key
performance indicators for
each project and supplier.**

STEP 5

**Progress Evaluation
Collect and track performance
data over time.**

STEP 6

**Communicating Performance
Prepare annual suitability
report**

- Codes of conduct are critical to establish and manage expectations for both customers and suppliers. When developing codes of conduct there are a number of international standards that should also be consulted and referenced. The UN Global Compact will also help companies to shape the code of conduct.
- Goal setting should be a collaborative process that involves leadership from each of the functions that will have responsibility for meeting established objectives.
- Defining company's position in the supply chain and identifying company's parts helps to trace key activities and people involved in bringing a product or service from raw material to market. This segmentation work to determine how to commit resources to improve sustainability helps understanding of a company's supply chain. This work allows companies to focus on the most critical elements for the supply chain.
- Create projects engaging with suppliers to develop shared mindset about sustainability and work with suppliers to share priorities.
- Create innovative projects to increase added value of the products and processes.
- Supply chain starts with purchase of required inputs and this is followed by inventory and warehouse management. In order to decrease uncertainties in each part of the chain, to sustain inventory efficiency, to increase customer satisfaction and finally to achieve a win-win-win result, supply chain management and sustainability programmes applied.
- Especially in complicated production and business processes like textile supply chains there is need for measuring performance goals and reviewing results for better outcomes.
- Set goals for all the functions (i.e. management, production, sales, and distribution) within the value chain process, follow up these goals with key performance indicators, make continual improvements during performance stage, and manage all of these studies with monitoring and evaluation tools to ensure discipline and operational excellence.
- Companies should also set indicators for performance in human rights, labour, environment, ethics and supplier management systems.
- There are many mechanisms that can be used to track performance of company and the suppliers. Data can be collected through integrating special data collection software like ERP development, Sedex etc.
- Get internationally accepted certificates which are specific to textile industry.
- Implement audits periodically and benefit from international standards such as SA 8000.
- Public reporting can be a tool to stimulate and enhance sustainability and transparency in the supply chain. It also demonstrates the management of environmental and social impacts and the assurance of governance in the supply chain both internal and external stakeholders.
- To prepare sustainability report companies can benefit from international platforms, tools and best practices. GRI (Global Reporting Initiative), UN Global Compact can be taken as guideline tools.

In order to sustain better management of product prices, input costs required to be competitive. To this end only developing business processes within the company is not enough, but there is need for trust based joint collaboration with suppliers, customers, distributors who are the players in the same supply chain.

Within the scope of the Joint Programme Harnessing Sustainable Linkages for SMEs in Turkey's Textile Sector, textile and apparel manufacturing companies were carefully examined. The Five Business Models Study aimed to present different implementations in order to make sustainability programmes and implementations under corporate social responsibility visible for SMEs.

Each of the five companies took place in the report are suppliers of global brands for years. This is not an easy task. What is common to all companies is; high level of commitment for protecting environment, supporting society, passion for innovation, long term vision for success and sharing outcomes widely with people. Through different activities the companies also highly contribute to Millennium Development Goals, every day the business evolves. They do not share only the product but also information and they increase awareness on importance of environment, people and effective use of resources.

Once companies were working to sell more from their products, now what they have to focus is generating added value through a "green identity" which redefines the product to create value for the customer.



Conclusions and Chapter 7 Recommendations

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This assessment report is part of the Millennium Development Goals Achievement Fund (MDG-F) Joint Programme (JP) on “Harnessing Sustainable Linkages for SMEs in Turkey’s Textile Sector” which has been developed with the aim to increase the global competitiveness of SMEs in Turkey’s textile sector in vulnerable regions, help them integrate into national and global value chains, and create more and better employment opportunities for women and men. As a part of this program, this report assessed the extent to which Corporate Social Responsibility (CSR) principles are integrated into the daily operations of SMEs in the textile sector, which, in general, is expected to benefit the sustainable development of Turkey and support her to achieve the targets of the Millennium Development Goals (MDG). The project targeted to upgrade the productivity and market access of companies as well as benefiting local disadvantaged communities in poor areas, including Central and South-eastern Anatolia. In short, within the framework of MDG, this *Assessment of CSR in Turkish Textile Sector Study*, assessed the current perception and status of sustainable development, issues pertaining to MDG, social and environmental conduct in the four pilot provinces Gaziantep, Malatya, Kahramanmaraş and Adıyaman. In this context *Assessment of CSR in the Textile Sector Study* is divided into three core areas regarding *Sustainable Development* (with the coordination of the İTKİB) and CSR regarding both Environmental conduct (with the coordination of the UNIDO) and Social Conduct: *Labour Standards* (with the coordination of the ILO).

Chapter 2, İTKİB laid out the broader framework of the sustainability in supply chains, global standards and global practices when it comes to CSR and analyses how the changing global pressures in the textile and clothing industry paradoxically create new prospects and impediments into the adoption of CSR practices at the same time. Elaborating on various global standards such as the UN Global Compact, and various global corporate standards and guidelines, this chapter dwelled on the contrast between the intensifying global competition which have put significant price and cost pressures in retailers and brand manufacturers raising the demand for better pricing and better quality from first and second tier suppliers, and also it tackled with important consumer and investment pressures that emerged so as to adopt and ensure CSR practices. In this chapter, sustainability is defined in terms of supply chain sustainability. The chapter specifically explores how the corporate strategies as well as policies at the macro level can be formulated so as to increase Turkey’s textile and clothing industry standing in the global value chain and argues that the both the competitiveness and the long terms success of the industry are based on adoption and diffusion of CSR principles. The fundamental message of this chapter is that CSR is an integral part of the sustainable supply chains in the industry and can play a crucial part in moving Turkey’s textile and apparel industry higher up in the industry’s value chain. Without a CSR and sustainable supply chain vision and lack in attention to growing interest and international CSR standards, the country’s industry may be trapped in low-cost, low quality end of the textile market. As will be elaborated below, the adoption and diffusion of CSR principles should follow four main steps; i) Commitment to supply chain sustainability, ii) Assessment of business scope, iii) Definition and Implementation and iv) Measurement and Communication. Combined with a vision which emphasizes the compatibility of three Ps, People, Profit and Planet, this chapter also underscores the importance of establishing a broader policy framework which involves coordinated efforts on the nexus of environment, education, labour and social policies at the macro-level.

Chapter 3, UNIDO examined the environmental aspects of CSR and is based on the premise that corporate environmental management is about finding a balance between economic and environmental protection issues. In this regard, economic issues, such as productivity, lower operational costs, or increased profits are to be tackled together with the pollution prevention and resource efficiency concepts. The chapter explores how the environmental management strategies, resource efficiency and cleaner production can be implemented both across the country as well as in the pilot region. The chapter identified the fundamental challenges in the textile and apparel industry. Typical environmental problems associated with the textile industry are those associated with water pollution caused by the discharge of untreated effluents. Liquid wastes arising from washing operations contain a substantial organic and suspended pollution load, such as fibres and grease. Effluents are generally hot, alkaline, and strong smelling and coloured by chemicals used in dyeing processes. Some of the chemicals discharged are toxic and

can lower the dissolved oxygen of receiving waters, threaten aquatic life and damage general water quality downstream. Other environmental issues now considered equally important and relevant to the textile industry include emissions, notably Volatile Organic Compounds (VOCs) and excessive noise or odour, as well as workspace safety. The chapter suggested that while there is significant progress towards implementation and compliance with environmental standards in Turkey, there is significant need for training programs, financial incentive mechanisms, developing stronger ties between corporations and SMEs as well as capacity building for dissemination of best practices, extensive partnerships among various stakeholders. Specific recommendations are enlisted below.

In chapter 3 and 4, ILO has focused on the labour problems and concerns, which centred on informality, (unregistered workers), long working hours, unpaid overtime, absence of strong unionism and most importantly lack of gender inequality (and freedom from discrimination.) Turkish textile and clothing industry, a major employer in the industry, can indeed play a constructive role in helping these cities improve their MDGF goals not only improving overall living standards in the region but also ensure decent work standards and gender parity. Once again, an extensive dissemination campaign, training programs, workshops and publications which underscore the importance of compliance with labour standards as well as award mechanisms and financial incentives for companies with good business models are proposed as major recommendations. Addressing the problem of poverty, unemployment in economically vulnerable regions in the country, creating employment opportunities while improving working conditions, wages and monitoring informality constitute the major challenge for the companies in the region. However, as elaborated further below, a strong CSR vision coupled with effective governmental and stakeholder monitoring and guidance would be a significant starting point and is crucial not only important in terms of contributing to Turkey's efforts in reaching MDGs (particularly when it comes to combating poverty, achieving gender equality and environmental sustainability) but is also essential for the overall competitiveness and global standing of Turkey's textile and apparel industry.

Finally the report ends with the lessons learnt from five business practices with in the context of CSR and aims to show the complementarities of socially responsible corporate strategies with profit maximization while at the same time contributing to the achievement of millennium development goals. The main emphasis in this chapter is that there are indeed excellent environmental management practices, labour practices and adoption of various international standards particularly by companies with international linkages and are tied to global value chains in the textile and apparel industry. These business models present excellent cases in terms of the merging of people, profit and planet and demonstrated how a long-term CSR vision can develop win-win strategies for all the stakeholders.

Overall Integrated CSR Enhancement Strategies and Recommendations

This report has grouped all the three aspects of CSR, supply chain sustainability, environment and labour along three different levels of interventions:

Micro-level: Assistance on the micro-level involves direct support to a group of companies belonging to the same sector, region, cluster, supply chain, etc.

Meso level: Support on this level focuses on business support and advisory institutions (public or private) that aim at expanding their service portfolio and strengthening their institutional capacity.

Macro-level: This level involves CSR related policy work with a view to support government institutions in determining what public policies best support a country's private sector in its efforts to apply socially and environmentally responsible business practices

1. Recommendations for Supply Chain Sustainability

Operational Recommendations for companies	Scale	General/Sectoral/ Regional Focus
<p>1. Review Business Risks Big companies working with suppliers (SMEs and /or big manufacturers) have to control and review whether the company covers the areas of the Global Compact Principles. SMEs knowing that Global Compact Principles gains substantial importance in international markets have to adopt relevant applications and collaborate with other players to reduce risks.</p>	Meso, Micro	Textile and apparel industry
<p>2. Realize Efficiencies Review your company value chain, product process and input conditions to realize areas that company can result in cost efficiencies. Re-organizing processes or using tools such as lean manufacturing may result with success to apply Global Compact Principles and bring increase in company profits.</p>	Meso, Micro	Textile and apparel industry
<p>3. Developing value-added services and more sustainable products The profit margins for apparel manufacturers are very slim. According to OECD data for an apparel-manufacturing firm that only engages in apparel assembly operations (i.e. sewing pieces into a finished apparel product) starting operations in year 0 cannot expect to become profitable until four years later. Even after ten years, profits will only be about 1.1% of total annual sales. Apparel manufacturers can begin providing more value-added services, allowing them to set higher prices and gain a larger share of the total revenue along the apparel industry value chain.</p>	Meso, Micro	Textile and apparel industry
<p>4. Review External Factors, understand competitive companies Not focus only your internal problems and processes of your company. Focus on competitors and leader companies and understand their business approach. Benchmark your company with the leading companies and understand in which areas they create business value.</p>	Meso, Micro	Textile and apparel industry
<p>5. Collaborate with Stakeholders Collaborate and communicate with local government agencies, NGOs and business organizations and try to see whether they can provide specific sectoral information from international markets, which can help your company to evaluate conditions against players in regional, national and international markets. Inquire national and international financial mechanisms to access finance or support where you can develop capacity and infrastructure for supply chain sustainability. Create joint standards focused on sector needs.</p>	Meso, Micro	Textile and apparel industry

<p>6. Establish business strategy and company vision reflecting your CSR approach Reconsider your business strategy and vision. Integrate supply chain sustainability approach into your vision and evaluate your performance towards achieving this vision. Share your vision with company members, workers and employees. Create leadership and ownership to implement supply chain management covering Global Compact Principles.</p>	<p>Meso, Micro</p>	<p>Textile industry and regional</p>
<p>7. Start developing code of conduct for your company Your company may follow principles through implementing code of conduct provided by your customer. However developing your own code of conduct can further establish trust and helps your company to enter new markets. Companies can benefit from international standards such as Global Compact.</p>	<p>Meso, Micro</p>	<p>Textile industry and regional</p>
<p>8. Re-consider your business scope Review the players in the supply chain and reduce your risks that can be caused by sub-tier suppliers. Apply supplier development programs and disseminate your expectations through collaborative approach. There is need for companies to further understand global trends and supply chain management, international policies and standards and to act in collaboration with the suppliers to meet market expectations.</p>	<p>Meso, Micro</p>	<p>Textile industry and regional</p>
<p>9. Establish Performance Goals, Measure and Communicate Set clear objectives for your company and managers in order to organize company actions. Set goals for impact, supplier performance, and internal performance. Measure your company processes and practices, collect data by using software programs such as Sedex, EcoVadis etc. Prepare reports and benefit from your reports through publishing.</p>	<p>Meso, Micro</p>	<p>Textile industry and regional</p>

Recommendations for Business Organizations	Scale	General/Sectoral/Regional Focus
<p>Collaboration and engagement with stakeholders is one of the most important dimensions of supply chain sustainability. Rapid changes in global supply chains put pressure on companies to respond requirements including Global Compact Principles. In this environment there are important roles for business institutions in Turkey;</p>	<p>Meso, Micro</p>	

Disseminate information and increase awareness on international standards,
 Provide information on global trends, best practices in textile and apparel industry, provide support for developing code of conduct for companies
 Focus on regional competitiveness and prepare sub-sector analysis and strategies for textile and apparel industry.
 Convey policy messages from sector to policy makers on specific and regional needs.

Meso, Micro

Textile industry and regional

Policy Recommendations for government and other stakeholders

Corporate Social Responsibility especially supply chain sustainability covering environmental and social changes is now taking place in horizontal policy areas which can be positioned as an intersection of different policies. The recommendations can be considered and can be further positioned within the Textile and Clothing Strategy of Turkey. These policy areas include but are not limited to Social Policy (Education, Social Protection, Labour and Healthcare), Economic and Developmental Policies and Environmental Policies.

Policy areas	Relevant scale	General/Sectoral/Regional Focus
<p>Setting Strategic Objectives for public institutions Increasing competitiveness of textile and apparel industry in international markets through creating excellence of regions by integrating supply chain sustainability programs and establishing sustainable linkages among players in the textile and apparel supply chain.</p>	Macro	General, textile industry and regional
<p>Priority 1: Increasing Commitment to Supply Chain Sustainability Formulizing national code of conduct and set of national standards for industries subject to international supply chains.</p>	Macro	General, textile industry and regional
<p>Priority 2: Assessment of Business Scope; Creating “Regions of Excellence in Textile Industry” Promoting supply chain sustainability management, innovation and design with specific focus given to niche areas of the textile industry. Supporting strategic specialization; networking and new start-ups through project-based incentives.</p>	Macro	General, textile industry and regional
<p>Priority 3: Definition and Implementation Focusing on supply chain efficiency by facilitating and strengthening linkages between inter-related firms. Support for the implementation of technological solutions to supply chain management and contribute to infrastructure improvements that promote supply chain linkages.</p>	Macro	General, textile industry and regional

Developing Infrastructure and Capacity Building for Micro Scale SMEs and start-ups towards supply chain engagement. Support of education and training where public higher education system, specifically programs that benefit the textile industry, should be maintained and strengthened. Determining future employment, emphasis on technical and performance textiles as a competitiveness strategy.

Priority 4: Measurement and Communication

Supporting companies for developing performance goals, measuring systems and preparation of code of conduct and annual reports on their efforts and progress in achieving compliance with Global Compact Principles.

Macro, Meso

General, textile industry and regional

Macro

General, textile industry and regional

2. Recommendations for Achieving Environmental Sustainability

Recommendations on Policy and Strategy Reforms	Relevant Scale(s)	General/ Sectoral/ Regional Focus
A policy and a roadmap for the dissemination of cleaner production (or sustainable consumption and production, including eco-labeling, eco-design, life cycle assessment, etc.) should be developed and implemented.	Macro	General
Framework legislation on cleaner production must be prepared and put into effect.	Macro	General
A sectoral roadmap and action plans should be prepared and implemented for textile industry on cleaner production.	Macro, Meso, Micro	Textile Industry
Measures should be taken for introducing the “Communiqué of Integrated Pollution Prevention and Control in Textile Sector” to all relevant stakeholders and facilitating its implementation effectively.	Macro, Meso, Micro	Textile Industry
Implementation of the Communiqué indicated in Action 1.4 should be followed closely and supported efficiently so as to obtain inputs for Actions 1.1, 1.2 and 1.3 through which textile industry can act as a pilot sector.	Macro	Textile industry, General
Cleaner production, resource efficiency issues and relevant legislative framework should be taken into consideration during the identification of regional priorities and needs.	Macro	General, Target Region

<p>Regulatory arrangements for textile industry (e.g. Communiqué of Integrated Pollution Prevention and Control in Textile Sector) should be linked with financial instruments like government subsidies and incentives at both national and regional level, particularly in the target region.</p> <p>Large enterprises should shift their strategic focus from project-based cleaner production activities to integrated standards within their CSR policies in the long-term.</p>	<p>Macro</p> <p>Meso</p>	<p>Textile Industry, Target Region, General</p> <p>Textile Industry</p>
Recommendations on Financial Mechanisms	Relevant Scale(s)	General/ Sectoral/ Regional Focus
<p>Similar to the energy efficiency area, industry should be provided with a more comprehensive and integrated system of financial supports for all aspects of cleaner production including cleaner production audits.</p> <p>Alternative financial models should be investigated and developed. In this context, cooperation between funding institutions, forming risk/venture capital funds for cleaner production activities, etc. should be considered.</p> <p>Measures should be taken for increasing the textile companies' benefitting from all existing financial supports in favour of cleaner production and resource efficiency, particularly in the target region.</p> <p>A mechanism, which will provide information and guidance about the national and international funding opportunities on cleaner production, should be formed. Regional institutions should lead this process in the target region.</p> <p>New/ innovative finance mechanisms should be developed for R&D, commercialization, demonstration and implementation projects of companies specifically in the field of environmental management and cleaner production.</p> <p>As a starting point, regional institutions/funds (e.g. regional development agencies) need to be restructured for this purpose, also aiming to facilitate companies' access to finance in the target region.</p> <p>A funding program may be started in the target region by the relevant development agencies specifically aiming at supporting textile companies in the field of environmental management and cleaner production so as to increase their competitiveness and corresponding export values.</p>	<p>Macro, meso</p> <p>Macro, meso</p> <p>Macro, Micro</p> <p>Macro</p> <p>Macro, Meso</p> <p>Macro, Meso</p> <p>Macro, Meso</p>	<p>General</p> <p>General</p> <p>Textile Industry, Target Region</p> <p>General, Target Region</p> <p>Textile Industry, Target Region</p> <p>General, Textile Industry</p> <p>General</p>

<p>Financial capacities/capabilities of institutions including environmental and energy consultancy firms, which are critical stakeholders giving services to textile companies, need to be developed. Preventive environmental management and cleaner production consultancy services should be promoted/supported through legislative arrangements and financial tools.</p>	Macro, Micro	Textile Industry, Target Region
<p>Recommendations on Information Networks and Partnerships</p>	<p>Relevant Scale(s)</p>	<p>General/ Sectoral/ Regional Focus</p>
<p>In relevance to the cleaner production applications the Best Available Techniques (BATs) should be determined and made available on a sectoral basis through formation of a database for textile industry.</p>	Macro	Textile Industry
<p>Databases and an information exchange platform in relation to the applicability and benchmarking of specific cleaner production tools, case studies, best practices, etc., particularly for textile industry, should be formed.</p>	Macro, Meso, Micro	General, Textile Industry
<p>A continuous communication should be sustained between large enterprises that follow similar CSR policies, in order to develop collective projects/ activities (R&D, consultancy, implementation, finance, etc.) for their common suppliers.</p>	Meso, Micro	Specific to Textile Industry
<p>Relevant ministries and public institutions should establish coordination among themselves in order to achieve a well-integrated and efficient system of services for environmental management and cleaner production, both at national and regional level.</p>	Macro	General, Target Region
<p>A network of stakeholders from different institutions with varying expertise in textile industry and environmental management should be established. The existing platforms and associations can take the lead for such initiatives.</p>	Macro, Meso, Micro	Textile Industry
<p>Project based activities as well as specific programs should be developed by means of this network in order to realize R&D, demonstration and implementation projects in the field of environmental management and cleaner production.</p>		
<p>The clustering activities already continued in the target region should be aligned towards information exchange and collaboration in the field of environmental issues.</p>	Meso, Micro	Textile Industry Target Region
<p>With a perspective of win-win relationship, strong collaboration should be established between the large enterprises and all textile industry suppliers, covering the whole supply chain, and the neces-</p>	Macro, Meso, Micro	Textile Industry

<p>sary activities and projects should be carried out in a cooperative manner.</p> <p>Sectoral associations in collaboration with related committees, working groups, etc. should take the issue into their agenda and carry out studies to determine the present situation, awareness, capacity, required actions, etc. with their sector through benchmarking studies.</p> <p>Measures should be taken to enhance the university- industry cooperation in textile industry and a specific focus should be made on the textile companies in the target region and specifically for cleaner production activities.</p>	<p>Macro, Meso, Micro</p> <p>Macro, Meso, Micro</p>	<p>Textile Industry</p> <p>General, Textile Industry, Target Region</p>
Recommendations on Capacity Building and Awareness Raising	Relevant Scale(s)	General/ Sectoral/ Regional Focus
<p>Capacity building and awareness raising activities should be carried out for all stakeholders starting with the public institutions at national, regional and sectoral levels, in relation to the CSR and environmental issues of the textile industry.</p> <p>Specific training programs should be organized and carried out for relevant national and sectoral experts, large enterprises and textile producers on environmental management, cleaner production and other relevant concepts.</p> <p>Each training program targeting at different audiences should be tailored accordingly and a specific focus should be made to the companies in the target region. UNIDO's REAP Methodology can be taken as a guide for these trainings.</p> <p>Awareness should be created on resource efficiency and cleaner production approaches among executives of textile producer companies. The importance of environmental policies and management practices should be communicated with them through reliable channels (governmental institutions, universities, NGOs, etc.). Specific focus should be made on the target region.</p> <p>Particularly the textile companies in the target region should be provided with specific services (training, counselling, audits, etc.) for general environmental management, new and potential regulations and cleaner production approach including monitoring, benchmarking and environmental performance indicators.</p>	<p>Macro, Meso, Micro</p> <p>Macro, Meso, Micro</p> <p>Macro, Meso, Micro</p> <p>Macro, Meso, Micro</p> <p>Meso</p>	<p>General, Textile Industry</p> <p>Textile Industry Target Region</p> <p>Textile Industry Target Region</p> <p>Textile Industry, Target Region,</p> <p>Textile Industry</p>

<p>Large enterprises should develop their capacities (technical, human resource, etc.) in order to shift their focus on cleaner production from project-based activities to the integration of the cleaner production and other emerging concepts and standards into their CSR policies in the long-term.</p>	Meso, Micro	Textile Industry
<p>Large enterprises should take measures in order to encourage their suppliers for using their current know-how, experiences and opportunities of benchmarking on environmentally friendly products to develop wider environmentally friendly production perspectives.</p>	Meso, Micro	Textile Industry
<p>Measures should be taken to enhance the R&D and innovation capacity of the textile companies and enabling this capacity to be used for advanced technologies also in cleaner production and resource efficiency related applications. To this end, training programs, workshops, publications, sharing of best practices, case studies and success stories as well as promoting university-industry relations etc. will be helpful.</p>	Macro, Micro	Textile Industry
<p>A specific capacity building effort on Best Available Techniques (BATs) and the related Reference Document (BREF) including the information sharing and technical infrastructure development should be conducted for textile industry.</p>	Macro, Micro	Textile Industry
<p>Demonstration and eco-innovation projects as well as feasibility studies with different tools and strategies of cleaner production in textile companies should be carried out and communicated.</p>	Macro, Meso, Micro	Textile Industry
<p>The current and potential legislative developments which indicate a planned shift from end-of-pipe approach to cleaner production should be shared with textile companies by various means like trainings, campaigns and seminars organized by public authorities and other relevant institutions. A specific focus should be made on the recently issued "Communiqué of Integrated Pollution Prevention and Control in Textile Sector".</p>	Macro, Meso, Micro	Textile Industry
<p>Big textile producers including the Tier 1 companies should act as a role model and a pioneer for other companies, particularly SMEs, in shifting environmental perspectives from legislation based approach to a resource efficient and cleaner production approach.</p>	Meso, Micro	Textile Industry
<p>Technical capacities/capabilities of institutions including environmental and energy consultancy firms, which are critical stakeholders giving services to textile companies, need to be developed, including cleaner production audits (assessment studies).</p>	Macro	General, Textile Industry

In parallel and integration with energy efficiency campaigns and activities carried out for textile industry, other cleaner production aspects such as water efficiency and chemical use should also be taken into consideration and companies' attention should be drawn to these aspects as well.

Macro, Micro

Textile Industry

3. Recommendations for Improving Labour Standards of CSR

	Relevant scale	General/ Sectoral/ Regional Focus
<p>Labour policy</p> <p>Developing and implementing labour policy to realize continuous development appears to be one of the key requirements of Textile and Apparel Industry in the project region. The demands from the SMEs regarding regional minimum wage policy, development agency plans to make related regions more competitive through human resources development and acquiring skilled workers are the key steps for implementing comprehensive labour policy and regional development.</p> <p>It is also expected to support the market and the economy besides developing working conditions, underlining gender equality, developing social audit and social standards to labour. The National Employment Plan is expected to comply with EU and ILO regulations and recent changes in the international standards that will enable labour standards to all SMEs with a close scrutiny on factories and other production facilities.</p> <p>The working conditions, conditions of disadvantage groups, gender equality, child labour, working hours all need to be scrutinized closely by the auditor. However, before the audits and implementation of law start, there is a need to develop the capacity of SMEs and business NGOs according to the National Employment Plan to implement its efficiency. In addition, training of labour groups, labour unions and all other stakeholders concerning the new law has a key role to increase the sphere of influence of the law.</p>	Macro	General, textile industry and regional focus
	Macro	General, textile industry and regional focus
	Macro	General, textile industry and regional focus
<p>Audit, Monitoring and Guidance</p> <p>The audit mechanism by government and large companies in this</p>	Macro, Meso, Micro	General, textile industry and regional focus

region is quite insufficient. Thus, increasing audits regarding the existence of unregistered workplaces and unregistered employment in recorded workplaces and monitoring the conformity of necessary working conditions and fair wage platform are strongly recommended to the government. Besides the auditing, there is a need for national guidance service to companies by government bodies regarding social standards.

Moreover, auditing and monitoring companies even if it is the lowest chain of their suppliers and not working with them if they don't consider CSR conditions for labour are recommended to the large companies as a result of the study.

Training

Designing training for all the stakeholders is a good tool for resolving the mentality of the stakeholders and realizing necessary paradigm change regarding labour conditions in the industry. Preparation of trainings concerning the new labour law, labour standards and awareness of the importance of Corporate Social Responsibility for labour, owners and managers of companies operating in the industry is recommended to government, business associations, large companies and labour unions. Health and Safety conditions, gender equality, unionization, SCR and labour law are the main subjects. Moreover, providing trainings to employees in order to increase the awareness to take advantage of employment with insurance instead of being restricted by the Green Card might be recommended to government, labour unions and associations.

Labour Unions and Collective Bargaining

In this sense, in order to stress the importance of labour unions to all stakeholders, there is a need to raise the national awareness and training campaigns. More importantly, a communication campaign including higher level of government officials encourages companies and labour to be part of a labour union. Otherwise, it is witnessed that the lack of communication and mutual prejudices between labour unions and companies will result in declining rates of unionization and weak labour unions in the region.

Incentives

Government providing tax and development incentives to some cities in project region under the scope of the law numbered 5084 and 5350, these cities are Adiyaman, Kahramanmaraş and Malatya. The law is in force until the end of 2012 and it provides discounts on insurance premium of the employees and income tax and also free land in industrial zones; in order to support employment (especially women and disabled) and development of the industry.

Meso, micro

Macro,
Meso, micro

Macro,
Meso, micro

Macro

General, textile industry
and regional focus

General, textile industry
and regional focus

General, textile industry
and regional focus

Despite of the incentives regarding employment provided to companies in most of the projected cities, there is still high expectation to get incentives in the region for Textile and Apparel Industry. These incentives in different forms might be used to develop the quality of labour standards of the SMEs the project region. Government may provide incentives to the companies, which register its entire employee. It is recommended that some side incentives will also be effective in the region such as Research & Development incentives, which will enable them to foster use of technology and invent new products, will increase motivation for textile companies.

In addition, award mechanism for companies also conducts social standards coherently. Thus, it is recommended that not only the highest tax payers are awarded at the national, regional and local level but also companies who conduct social standards, labour standards and CSR principles can be awarded by public institutions which may make companies develop their relations with government and increase social standard investments. Recently established regional development agencies may be good mechanism for such awards in partnership with Ministry of Labour and Social Security and support from respective UN Agencies including ILO may be a key award on social standards in Textile and Apparel Industry. The award may be given under many categories i.e. best working condition, best labour satisfaction, gender equality etc.

A final incentive recommendation is regarding supporting establishment of Socially Responsible Production Union, even establishing some pilot projects to convert some organized industrial zones into a socially responsible production unit with training centres. The ongoing establishment of the zone General, textile industry and regional focus in Kahramanmaraş has a high potential to be supported and bringing incentives to companies in this zone. It can also be presented as a good practice for other locations to convert their industrial zones. It is vital to highlight the fact that the paradigm shift is an absolute must in the city before any action is taken, and this is valid for every province and even for the Turkish Textile and Apparel industry.

Macro,
Meso, micro

Textile and
apparel industry

Macro, meson,
micro

Textile and
apparel industry

Final word

Recommendations to the Companies, Labour Unions, NGOs, Business Associations and the Government are provided in this report in order to solve the highlighted problems of the industry. In order to solve the mentioned problems listed in this report, there is a great need to bring about a paradigm shift. All the stakeholders of Turkish Textile and Apparel Industry must and should understand that in order to sustain and compete they have to change the path they have been following and alter their mindset and paradigm. First of all, they must believe in implementing CSR and in what they do; secondly, they must believe in themselves, and that they can do better for the whole community and for themselves simultaneously by creating a "real" win-win situation within the CSR framework;

thirdly, they should revise their mission according to this mindset in order to gain sustainability; fourthly, they must make decisions for mutual benefit of all actors related with the decision area rather than solely their own benefit; finally, they must implement their actions regarding this consciousness and responsibility level for the sake of their sustainability, and for whole community at the same time.

This necessary paradigm change will enable all the stakeholders to see that the problems related to implementation of CSR in the industry can actually be an opportunity rather than a problem. As a result, companies can make a difference, create value and gain sustainable competitive advantage. This basically means that the stakeholders accept and see the fact that they have responsibility for to themselves, to each other, and towards the whole community. Adopting these international standards and CSR principles would then be an opportunity for a better world, innovation, wealth for everybody and sustainable competitiveness in textile/apparel industry and beyond.

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