



Cleaner Production SME Case Study

CLEANER PRODUCTION FOR EGYPT'S TEXTILES EXPORTS

Introduction

Egypt's textile and clothing industry is one of the highest value-adding industries in the economy and is the second largest manufacturing sector after food processing. In 2003, it accounted for 25% of industrial output (excluding petroleum products) and was the fifth largest source of foreign income, which in 1998 totalled LE3billion. Throughout the sector the single largest item exported (in terms of volume) is cotton yarn, with over 60% going to the European Union (EU).

Profile of the Egyptian textile industry

- ▶ 39 public enterprises affiliated to the Cotton and Textiles Holding Company.
- ▶ 4,491 private establishments affiliated to the Cotton and Textiles Holding Company.
- ▶ Many more non-affiliated small factories and workshops operate across the country.
- ▶ As of December 2003, there are 1,147 private sector manufacturers.
- ▶ The public sector accounts for 90% of cotton spinning, 60% of fabric production, but only 30% of clothing production, which is dominated by the private sector.

The sector is also an important source of employment, occupying around 30% of the domestic labour force. Around one million people work directly in the industry and more than 2 million in associated sectors, such as agriculture, trade and services.

Key characteristics and trends

The EU is Egypt's largest trading partner, the second largest being the USA (see Figure 1). The EU currently accounts for 40% of Egyptian exports and 34% of imports. Textiles and clothing are one of Egypt's main exports to the EU, accounting for 15% of the exports in 2003.

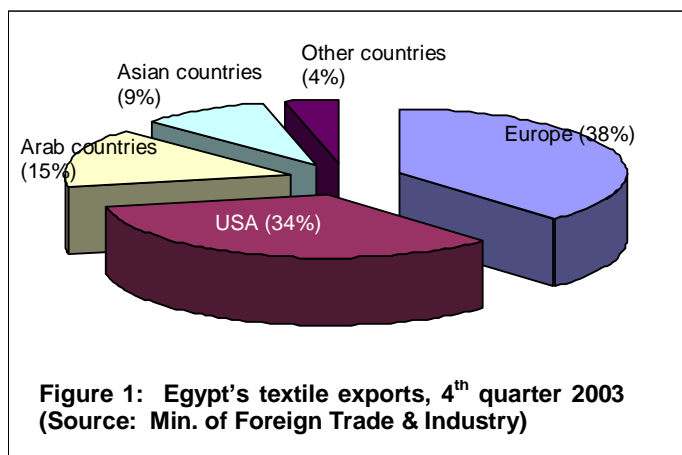


Figure 1: Egypt's textile exports, 4th quarter 2003
(Source: Min. of Foreign Trade & Industry)

However, Egypt's share of the EU's textile market has declined from 2.8% in 2001 to 1.8% in 2003. This is in marked contrast to China and to a lesser extent Pakistan, who have increased their market share by 19% and 8.6% respectively over the same time period.

In contrast, Egypt's share of the EU's clothing market has increased by 3% over the same period of time, although Egypt only has a very small market share; 0.5%.

The textile and clothing industry faces a serious challenge if it wants to increase its market share.

Challenges facing Egypt's Textile Sector

International trading rules are undergoing significant changes that will reshape the future of trade in textiles and clothing, including:

- ▶ The abolition of the quota system under the Agreement on Textiles and Clothing (ATC), starting January 2005.
- ▶ Increased competitiveness in the EU market from other producers, particularly China, India, Pakistan and Turkey.
- ▶ China's accession to the World Trade Organisation (WTO).
- ▶ Increasing awareness among European consumers about the impact of products on their own health and safety, as well as the impacts of the production processes on the environment.
- ▶ Increasing level of environmental protection and more stringent regulations in the EU market e.g., the Integrated Pollution Prevention and Control (IPPC) Council Directive 96/61/EC.
- ▶ Preferential Agreements with the EU (duty free access) that do not guarantee a specific market share.

To address these and other market requirements, Egyptian producers first need to have access to information about current and future trends. This needs to be followed by investments in technology and in technical skills that will enable the producers to develop products that will meet these market requirements.

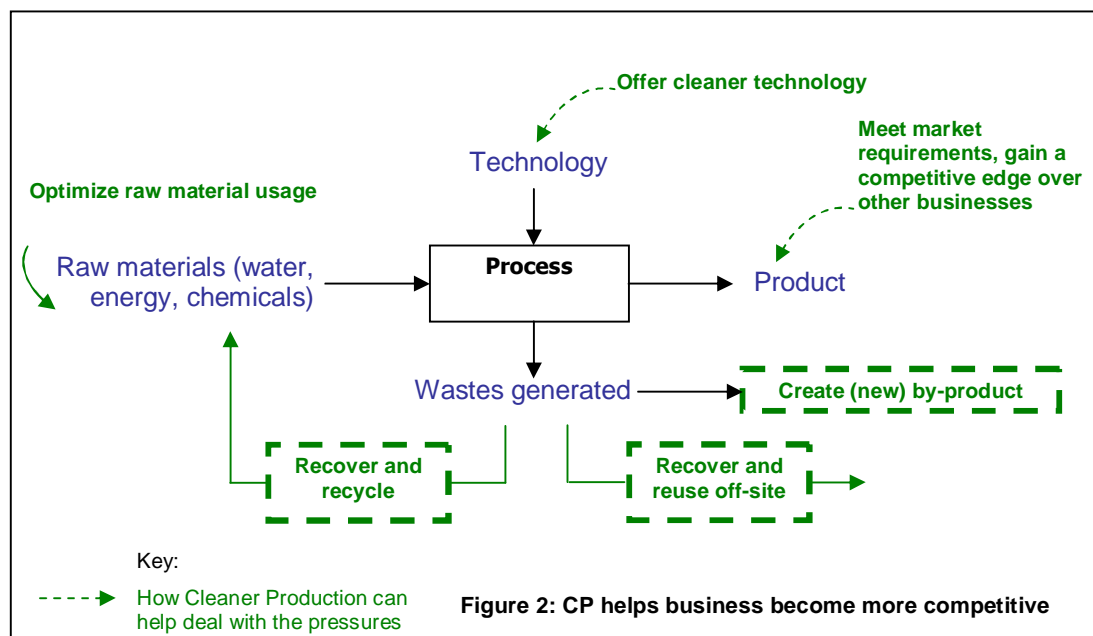
There is therefore a need for a systematic, proactive approach that can help producers meet these challenges and be competitive in the global textile and clothing market.

Using Cleaner Production to address the challenges

Cleaner Production (CP) is essentially a preventive approach that allows all resources to be used more efficiently and optimises processing steps, whilst minimising waste generation and emissions. It leads to reduced consumption of raw materials, eliminates toxic raw materials and improves efficiency, which in turn increase profitability and competitiveness. Practice of CP also addresses the environmental, health and safety improvements required by the global textile market.

Figure 2 provides a schematic representation of some of the attributes of CP that can be used to make business more efficient so that it can meet the challenges of the global market.

China and India have both used CP to improve the industry's position in the global market. In developing its strategy to enhance textile trade, the Egyptian textile and clothing industry could incorporate lessons learnt from the experiences of these countries and be able to compete more effectively in the international marketplace (see Text Box 1).



In addition to making a business more cost-effective, CP can also help factories achieve internationally accepted "ecolabels". These demonstrate to the consumer that the labelled products are both environmentally safe and do not contain harmful chemicals. This is important in a market where consumers are increasingly concerned with the effects of toxic chemicals on their health and on the environment. Obtaining an ecolabel can also help maintain existing export markets and expand into new ones.

A large number of ecolabels exist, ranging from schemes that only address the quality of the final product to adopting increasingly complex "life-cycle" approaches that integrate environmental and social standards into their criteria. The specific ecolabel selected will depend strongly on buyer preferences and the type of market that the producer wants to target (however, as of December 2004, Egypt had only 19 ecolabels from one of the most widely known ecolabel providers, "Oeko-Tex", well behind other major suppliers such as China, with 604).

Institutional strengthening – two SEAM Programme initiatives

CP has been used by the Egyptian textile industry to improve productivity, resource efficiency and environmental compliance. However, this has generally only been at factory level and the benefits of CP in enhancing competitiveness in trade have not been widely recognised.

Ministry of Foreign Trade and Industry: CP "Cell"

A CP Cell, focusing on the textile and food processing sectors, was established in the Ministry of Foreign Trade and Industry (MoFTI) to promote awareness on CP and demonstrate how it can enhance international trade.

Staff selected by the MoFTI were first trained by international consultants about:

- ▶ the concept of CP,
- ▶ expectations and requirements of the international trade market,
- ▶ future trends and challenges facing the Egyptian textile sector and how CP can be used to meet these challenges.

Hardware and software resources were provided to establish the CP Cell and a training manual on CP and trade was developed.

An awareness workshop was organised for the MoFTI, Ministry of Environment, Egyptian Environmental Affairs Agency (EEAA) and industry to introduce CP as a concept and as a tool for enhancing trade.

A second, more interactive workshop was then held for the same group, along with the EC delegation in Cairo and representatives from ecolabel agencies, to encourage networking and information sharing. It provided a forum for discussions on challenges facing Egyptian textile industry in the EU market and action that the Egyptian

Government and industry needed to take to meet these challenges and maintain a competitive position in the global textile market.

It is anticipated that the CP Cell will in future, serve as an early warning system on changing market challenges and expectations. The information will be maintained and shared with industry through networking and collaboration with other agencies such as the NCPC and BRCs.

By making the CP Cell a dynamic and effective centre, the MoFTI can effectively bridge the information gap between the market and the industry thereby enabling industry to be responsive and competitive in the world market.

CP and Business Resource Centres

A number of Business Resource Centres (BRCs) have been set up across Egypt under the EU's Industrial Modernisation Programme, to provide consultancy advice to industry. Their initial focus on economics and marketing was expanded to include CP and how it could help industry become more efficient and competitive. This was piloted in 10th Ramadan BRC, as awareness levels regarding CP there are relatively high.

An open day was first held, to which individual factories in the area were invited. This was intended both to familiarise them with the BRC and to introduce the new service that it was providing. The CP service consists of:

- ▶ developing a manual to help identify CP opportunities;
- ▶ maintaining a list of sector experts and consultants who can provide CP-related services and implement any identified opportunities;
- ▶ a CP Resource Room, containing information on how to assess a factory for cost-effective CP opportunities, case studies describing successful and profitable CP implementation in Egypt and technical guidance manuals.

Text Box 1: Technical, financial, institutional and policy level initiatives taken by India and China that could be useful for Egypt:

India:

- **A dedicated textile policy** to enhance productivity, upgrade technology, enhance quality and provide innovative financing arrangements has resulted in a 13% increase in textile exports.
- **Financing mechanisms to assist technology upgrade and transfer.** The Ministry of Textiles (MoT) established the Technology Upgrade Fund in 1999 to make Indian textile exports more competitive. Such a fund will help introduce innovative concepts into industry that might otherwise be disregarded.
- **Building local technical capacity** to reduce dependence on external consultants and donors. In India, environmental issues (and by extension, CP) are incorporated into education, helping develop a pool of technically qualified professionals.
- **Establishing accredited testing laboratories.** The MoT has developed 27 laboratories to test goods prior to export, to ensure that they meet specified criteria. They also give technical advice to exporters about meeting new market requirements.
- **Fiscal incentives to promote clean technologies.** India actively encourages the uptake of clean technologies by (a) reducing customs and duties on imported equipment and technology that promotes CP and (b) discouraging the import of second-hand equipment that does not promote CP.

China:

- **Making CP law.** China developed a strategy to promote and implement CP uptake in key geographic areas and industrial sectors. This approach will help ensure that the benefits of improved productivity and profitability will be experienced throughout each sector and by the country as a whole.
- **Facilitating technology transfer.** Technical support was provided by UNIDO through the "Eco-Investment Forum" to help the textile industry (amongst others) make their production processes cleaner. The proposals were presented to vendors at a Forum, facilitating direct interaction between the two groups.

Other initiatives

Introduction of a national level ecolabel. Both India and China have established national ecolabels for textiles. Although they are not internationally recognised, incorporation of selected international standards could make the more widely recognized ecolabels easier to achieve, as well as raising awareness of CP in the domestic market.

Introducing CP bodies. Bodies such as the National CP Centre (NCPC, India and China), Waste Minimisation Circles (India) and the Centre for Environmentally Sound Technology Transfer (China) have played a major role in promoting CP, providing technical support and disseminating CP experience. Several similar initiatives have been set up in Egypt to stimulate and promote CP and enhance the textile sector's competitiveness, including:

- a CP Cell in the Ministry of Foreign Trade and Industry (established under the SEAM Programme),
- a number of Business Resource Centres (under the EU-supported Industrial Modernisation Programme) and
- a NCPC (UNIDO and UNEP supported).

More Information

List of references

1. Egyptian Export Promotion Centre (August 2001) "Supply Survey to Increase Egypt's Participation in Development Aid Procurement, Buyers/Sellers meetings on Shelter, Personnel Protection and Household Items". South-South Trade Promotion Programme, Ministry of Economy & Foreign Trade
2. The Textile and Clothing Industry in Egypt. Business Studies and Analysis Centre. American Chamber of Commerce. August 2004.
3. "Guidance Manual on Enhancing Egyptian Trade through Cleaner Production", SEAM Programme.
4. "Guidance Manual: Ecolabelling for Textiles" (January 1999). SEAM Project.

Further information can be obtained from the Egyptian Environmental Affairs Agency. Additional Cleaner Production information can be downloaded from the SEAM website: <http://www.seamegypt.org>

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SEAM Programme

Support for Environmental Assessment and Management (SEAM) is a multi-disciplinary environmental programme funded by the UK Department for International Development and implemented in Egypt by the Ministry of State for Environmental Affairs, Egyptian Environmental Affairs Agency, Entec UK Limited and ERM.

SEAM: Cleaner Production

Small to Medium Size Enterprises (SMEs): SEAM has undertaken over 100 rapid Cleaner Production Opportunity Assessments (CPOA) in SMEs and implemented 30 demonstration projects.

Medium to Large firms: SEAM has carried out industrial audits in 32 factories in the textiles, food and oil and soap sectors and implemented 23 demonstration projects.

Guidelines for conducting CPOAs, case studies, guidance manuals and sector assessments are available from the SEAM website.

Benefits of Cleaner Production

Cleaner Production assessments systematically review the factory's operations and processes, focusing on reducing wastage, improving efficiency and reducing pollution.

It can REDUCE: production costs, losses of valuable raw materials, on site treatment costs, energy and water costs, the volume of solid and liquid waste generated, and the risk of spills and accidents.

...and IMPROVE: productivity, income from financial savings and reuse of waste, employee safety, legislative compliance and company image.