

IMPACT SHEET: Implementation of Environmental Management Systems (EMS) and eco-labelling schemes in the SMEs of the leather sector in Bangladesh (ECOLEBAN)

Empowering SMEs to apply environmental management systems and eco-labelling frameworks in Bangladesh's leather industry



Enhance sustainability throughout the whole value chain of the leather products through the implementation of environmental management systems (ISO 140001) and life cycle approaches (LCA, Eco-design) in the SMEs as well as promotion of “green” commercialisation and consumption through the use of Eco-labelling



CHALLENGE

The leather industry is a quickly growing and vital component of Bangladesh's economy, being the third highest foreign exchange earner. However, the billion-dollar leather sector is highly polluting and is responsible for harmful impacts on both the environment and human health. In-depth analysis to identify the needs of the sector revealed that the leather sector in the country is dominated by SMEs with a lack of expertise and capacity to respond to environmental problems. To combat this and to put the industry on a path towards sustainable consumption and production, several key challenges and constraints need to be considered: the lack of knowledge, technical and managerial capacities, insufficient access to long-term finance, and a local business environment conducive to adopt sustainability practices and standards such as certifications to increase their competitiveness in international markets, where sustainability has become an important prerequisite for business viability.

PROJECT BACKGROUND

In response to the obstacles existing for SCP, the European Union (EU) funded the collaborative project, under the SWITCH-Asia Grants Programme, titled "Implementation of Environmental Management Systems and Eco-Labeling Schemes in the SMEs of the Leather Sector in Bangladesh" (ECOLEBAN). The ECOLEBAN project was launched in Bangladesh in 2014 and continued through 2018. The project was jointly implemented by a consortium of TECNALIA Research & Innovation and three leather industry associations: the Bangladesh Finished Leather, Leather Goods and Footwear Exporters Association (BFLLEA), the Bangladesh Tanners Association (BTA) and Leather goods & Footwear Manufacturers & Exporters Association of Bangladesh (LFMEAB).

Its actions aimed at establishing conditions for sustainable consumption and production among SMEs in the leather industry in Bangladesh. It accomplished these actions by leveraging key drivers of SCP: access to finance; awareness of policymakers and financial institutions; integration of environmental management systems e.g. ISO 14001 certification and life cycle approaches; and implementation as well as marketing and branding of ecolabelling schemes.

PROJECT OBJECTIVES

The ECOLEBAN project's overall objective aimed to improve resource efficiency and sustainability throughout the whole value chain of the leather related products industry, including footwear and other leather goods.

The specific objectives sought to increase the number of less polluting and more resource efficient products through:

- Improving the sustainability and resource efficiency of the leather sector in Bangladesh by implementing Sustainable Consumption and Production (SCP) best practices, environmental management systems e.g. ISO 14001 and life cycle approaches e.g. life cycle assessment (LCA) and eco-design by SMEs;
- Implementation of eco-labelling schemes in the leather footwear sector as well as promoting 'green' commercialisation and consumption through its improved marketing
- Increasing the capacity and commitment of the SMEs and governmental institutions in SCP practices e.g. ISO 14001 and eco-labelling, and the engagement of financing bodies and other stakeholders.

TARGET GROUPS

- **580 SMEs** identified within the leather sector in Bangladesh, including tanneries, footwear and leather goods manufacturers, exporting companies and stores
- **Leather Industrial associations** such as BFLLEA, BTA and LFMEAB
- **Retailers and other commercial agents** e.g., the Dhaka Chamber of Commerce and the Ministry of Commerce
- **National authorities** responsible for policy formulation and implementation (public services, economic planning and finance, industry and environment)
- **Financial institutions** including both national and international

PROJECT ACTIVITIES

Identifying Sustainability Key Hotspots in the Leather Goods Value Chain

This activity reduced the severe adverse impact of the leather sector in Bangladesh on the environment and on society (human health). The adverse impacts were due to the lack of pollution control practices at all levels (regulatory, technologically, methodology, etc.). The project applied a Life Cycle Assessment (LCA) approach to identify key hotspots along the leather goods value chain in tanneries and in footwear companies. To provide solutions to the identified hotspots, a 'Best SCP Practices Programme' was elaborated and implemented in leather sector SMEs. The programme included substitution or reduction of some of the most polluting chemical products, safe chemicals handling and control, process optimisation and reduction of water consumption and wastewater discharge.

Introducing an Environmental Management System (EMS) for Leather Sector SMEs

The adoption of an EMS enabled enterprises to reduce their environmental impact and increase their operating efficiency, such as control of suppliers and contractors, operational control, management of chemical products and waste, emergency preparedness and response, waste reduction and proper waste segregation. The project facilitated certification of leather sector SMEs with the Environmental Management System label ISO 14001.

Promoting Green Consumption through eco-labelling

The project designed an eco-labelling scheme for leather footwear that promotes products with a low environmental impact, free from harmful chemicals and of high and durable quality. For the application of an eco-label, the leather footwear sector was chosen due to its volume of manufacture and sales, high exporting rates and market access. As a base for the design, consumers were surveyed. Additionally, workshops with the main consumer groups were held to identify constraints and limitations to buying sustainable products. The implementation of the eco-labelling scheme took place in footwear manufacturing SMEs.

Women's Empowerment in the Leather Sector

Majority of the footwear industry workforce consists of women, making improvement of their labour conditions crucial. To this end, the project organised an event to celebrate the International Women's Day, raising awareness of the importance of women's labour in the leather sector and to fight discrimination against women within the sector and in society in general.

PROJECT ACHIEVEMENTS

- 120 SMEs implemented SCP practices, including Substitution of some of the most hazardous chemical products in the processes and Consumption reduction of some of the most hazardous chemical products as well as saving up to 40% in water consumption compared to before in those processes implementing the SCP.
- 26 SMEs started the EMS-ISO 14001 programme implementation while 18 SMEs completed implementation with certification from an external certifying authority, improving awareness of SCP among employees, increased energy efficiency with an average consumption reduction of 8% and improvement of waste segregation leading to a reduction of waste by 10%.
- 24 SMEs started the eco-labelling programme implementation and 17 SMEs completed the programme. The eco-labelling programme's implementation itself led to sustainable attitudes (commitment towards environment) being created in all SMEs belonging to the supply chain as well as the development of competitiveness

among the manufacturers towards sustainable local market development.

- Environmental improvements achieved per tonne of leather processed, including an average water consumption reduction from 65 cubic meters to 40 cubic meters in tanneries and a 30-40% reduction in wastewater discharge achieved, resulting in water pollutant reductions.
- Labour condition improvement indicators such as a reduction in the number of diseases of workers and a decrease in medical leave by 20% was a result of reducing exposure to polluting substances when following SCP guidelines such as those in ISO 14001 and eco-labelling schemes.
- Capacity and awareness were enhanced on SCP practices with more than 500 SMEs in the leather sector in Bangladesh being trained on best practices and certification models, and more than 15 financial institutions being sensitised on sustainable production.
- Economic improvements were achieved during and after project, leading to the Bangladeshi government targeting an increment in the leather export from USD 1.25 billion in 2016 up to 5 billion in 2021 (an increment of 400%).
- 20 SMEs achieved access to finance for SCP, investing in new machinery.

LESSONS LEARNED

As the aim is fostering replication throughout the rest of the leather sector SMEs, the lessons learned during ECOLEBAN's operation are very important. Some of these lessons included:

- Ensuring a commitment to and understanding of EMS, SCP best practices and eco-labelling schemes among top management
- Understanding that measurement of improvements achieved is crucial for the sustainability of the implementation itself
- Supporting and continuous engagement with the policy-makers is mandatory. The ECOLEBAN project has dedicated special attention to these efforts, learning that: regular communication, motivation and meetings are needed inform them about implementation progress; participation in the Leather, Footwear and Leather Products Sectional Committee (CSC-4) is a critical influence to future drafts standards on eco-labelling; and knowledge and capacity building needs to be expanded to have a sustainable result for the implementation of new concepts on sustainable production procedures (mainly on SCP and eco-labelling).



ECOLEBAN has developed a holistic programme that addresses the challenging environmental problems in Bangladesh's leather sector and which involves all leather stakeholders: SMEs, industrial associations, consumer associations, national authorities and financial institutions. The impacts already achieved in the pilot SMEs have sparked the interest of all these stakeholders, which enables sustainability of the project's results by implementation of an Environmental Management System and labelling in many other SMEs even after the project, also thanks to involving the government in the development of new policies on SCP and eco-labelling.



Mr. Javier del Pozo
Project Manager, Fundación
Tecnalia Research & Innovation

Long-term project sustainability

The sustainability after the project has been assured by means of capacity building and dissemination of the results obtained during the pilots' implementation. Only capacitated SMEs, national experts, SMEs associations, national policy makers, and stakeholders in general, can assure the sustainability of ECOLEBAN.

To this end, capacity building of technical local experts, close collaboration with the government institutions and awareness raising took place through dedicated events and periodic meetings. Activities involving policymakers were organised with the final aim of influencing future laws that regulate the production of the leather sector. Other activities and elements contributing to long-term sustainability of the project included publishing guidelines on SCP best practices, eco-design approaches and implementation of ISO 14001 to encourage further capacity building and training; creation of market demand for eco-labelled leather footwear by developing and implementing a marketing and communication plan; and creating dissemination material reflecting the needs of and being accessible to the audience to increase overall and technical awareness.

Project contributions to Climate Change Mitigation and SDGs

The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) provides an overarching framework for responding to, protecting and enhancing the natural assets of countries, both marine and terrestrial, mitigating environmental degradation, air pollution and climate change and putting countries on the path to sustainable consumption and production.

- **SDG 12** is at the center of this project, with the principal objective of enhancing the resource efficiency and sustainability of the leather sector in Bangladesh throughout the whole value chain of leather-related products.
- ECOLEBAN also contributes to **SDG 3** through improved the working conditions of many leather workers, creating healthier, cleaner and more productive labour settings
- One of the most important impacts of this project is directly connected to **SDG 6** through the reduction of the clean water consumption and the substantial reduction of the waste polluted water
- **SDG 9** has links to ECOLEBAN through the its support of innovations in the leather production to reduce the water consumption, the consumption of pollutants and reduction of wastewater discharges

Beyond the SDGs, ECOLEBAN has driven SMEs in Bangladesh's leather industry to take climate change action. Eco-labelling protocols and improved solid waste treatment have both supported CO₂ emissions reduction while also increasing the contributions of expertise and resources for reporting by small and medium-sized enterprises.

Impacts at a Glance

Economic Impact	<ul style="list-style-type: none"> • Market share of Bangladeshi leather sector SMEs (local and international) increased by up to 10% due to the improvement of their environmental image (SCP, ISO, and eco-labelling). • Economic improvements achieved during and after project led the Bangladeshi government to increase the target for leather export from USD 1.25 billion in 2016 to up to USD 5 billion in 2021 (a 400% increase). • Reduced SME production costs by reducing water use; reduced discharged water also lowered operating costs of Common Effluent Treatment Plants. Production costs were further lowered by reducing chemicals use. • In many cases, physical properties of leather have been improved, increasing the market value of end products.
Environmental Impact	<ul style="list-style-type: none"> • Water use has been reduced by up to 40% in tanneries and by up to 5% in footwear SMEs through training and consultation in implementing measures to avoid wasting water. • Approximately 20% of dry salt has been removed from raw hides and reused, reducing total dissolved solids in the effluent discharge. • Some of the most polluting chemicals (such as ammonium compounds, octylphenol and nonylphenol ethoxylate) have been substituted with less harmful and less persistent chemicals, or reduced in their usage, resulting in less pollutants in waste water. Total chemical consumption was reduced by 15%. • Solid waste was reduced in footwear SMEs by approximately 10%. • COD (Chemical Oxygen Demand) was reduced through the optimisation of process chemicals.
Social Impact	<ul style="list-style-type: none"> • More than 400 workers have received training on SCP schemes (e.g. ISO 14001 and eco-labeling). • Reduced workers' exposure to the most hazardous substances in more than 30 SMEs by substituting or reducing their use, thereby reducing a number of diseases and decreasing medical leaves by 20% • The project has implemented health and safety programme in more than 60 SMEs and introduced safe chemical handling. Noise and lighting conditions have also been improved in all SMEs implementing the EMS.
Green Finance	<ul style="list-style-type: none"> • The project assisted 20 SMEs to obtain financing for SCP-related investments. • 22 financial institutions participated in an awareness-raising campaign to include SCP in lending schemes. • More green loans are now being provided by financial institutions, with an increased demand on environmental protection and energy saving technology and services. • The project has been developing new financial instruments for SMEs by building a relationship with the National Bangladesh Bank to adopt the existing "Green Transformation Fund" to the project objectives.
Target Group Engagement	<ul style="list-style-type: none"> • 441 SMEs have been trained on SCP practices, the EMS ISO 14001 and eco-labelling (more than 500 expected by the end of the project) with around 100 SMEs already adopted SCP practices. • 20 SMEs, mainly footwear and leather goods manufacturers, have implemented the EMS ISO 14001. • 16 footwear SMEs have implemented the project's eco-labelling scheme. • 40 voluntary agreements have been signed (100 expected by the end of the project) for the implementation of SCP practices, the EMS ISO 14001 and eco-labelling. • 45 national experts have been trained on SCP practices and EMS ISO 14001 in a four-day programme.
Policy Development	<ul style="list-style-type: none"> • Three guidelines have been published for the sustainability of project outcomes: an SCP guideline, an SCP checklist and a guideline on the implementation of an EMS ISO 14001 in SMEs. • The project published the eco-labelling scheme (protocols and procedures) for leather footwear companies. • New Bangladeshi national policies were developed on SCP and eco-labelling with the support of the project. • Guidelines were published for the sustainable development of the 'tannery state' Savar. • The Leather, Footwear and Leather Products Sectorial Committee (CSC-4) was established for developing standards in footwear, eco-friendly finished leather and for the evaluation of ECOLEBAN eco-labelling proposal.
Europe-Asia Co-operation	<ul style="list-style-type: none"> • Nearly 100 policymakers reinforced on European regulatory framework and successful sustainable experiences. • Creation of a European-Bangladesh Cluster of SCP practitioners in the leather sector. • International meeting for matching the European and Asia excellence in Sustainable Production and Consumption in the leather sector.



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PARTNERS



Fundación Tecnalia
Research & Innovation, Spain



Leather goods & Footwear Manufacturers &
Exporters Association (LFMEAB), Bangladesh



Bangladesh Finished Leather goods & Footwear
Exporters' Association (BFLLEA), Bangladesh



Bangladesh Tanners Association
(BTA), Bangladesh



CONTACT

Fundación Tecnalia Research & Innovation

Parque Tecnológico de Bizkaia, E-48160 Derio (Bizkaia), Spain

Mr. Javier del Pozo Moro, Project Manager

Email: javier.delpozo@tecnalia.com

Telephone: +34-946-430-850

Mr. Sanjoy Kumar Thakur, Local Project Manager

Ashrafun Villa (3rd Floor), Flat # 04, House # 17/1 (New) Road # 03,
Dhanmondi R/A, Dhaka-1205, Bangladesh

Email: sanjoypro@yahoo.com

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