International Labour Organization

Productivity and Decent Work

Improving Productivity Ecosystems and Strengthening Working Conditions in Key Industrial Sectors in Egypt

ITALIAN AGENCY FOR DEVELOPMENT COOPERATION

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Ministry of Industry

Enhancing productivity and improving working conditions in key industrial sectors in Egypt

Marble sector

Assessment summary report

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Abbreviations

BDS	Business Development Services
CAPMAS	Central Agency for Public Mobilization and Statistics
CRM	Customer Relationship Management
EEAA	Egyptian Environmental Affairs Agency
EGP	Egyptian pound
FEI,	Federation of Egyptian Industries
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit - German Agency for International Cooperation
IDA	Industrial Development Authority
ILO	International Labour Organization
IMC	Industrial Modernization Centre
IO	International Organization
MOI	Ministry of Industry
MFP	Multi-factor Productivity
MSME	Micro, Small and Medium-Sized Enterprises
MSMEDA	Micro, Small and Medium Enterprises Development Agency
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SME	Small and Medium-Sized Enterprises

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Executive summary

This report is the shortened version of the assessment report on Egypt's marble sector that was produced under the ILO project, Productivity ecosystems for decent work in Egypt. The project aims at enhancing productivity and improving working conditions within two key industrial sectors in Egypt: the leather tanning sector in Robbiki leather city and the marble sector in Shaq Al-Tho'ban. By mapping conditions affecting productivity and decent work, it is intended to serve as a guide for designing tailored activities. Preparation of the study involved field visits, enterprise surveys, focus group discussions, stakeholder workshops, and key informant interviews with representatives from government, business associations, enterprises, and workers' organizations. It is worth nothing that the detailed version of the report is available upon request from the ILO Cairo Office.[1]

The marble value chain in Egypt encompasses a wide range of activities, from raw material exploration and extraction to processing, distribution and export. A marble cluster began to emerge unplanned almost 40 years ago in the El Khayala area of Old Cairo. Due to the cluster's increasing expansion, the Cairo Governorate began moving the factories to Shaq Al-Tho'ban in the early 1980s. The cluster currently contains an estimated 2,525 enterprises, contributes 90 per cent of the country's total marble production, and accounts for 85 per cent of Egypt's total marble and granite exports. It has a maximum production capacity of 95 million square metres, though only about half of this is currently being utilized. There are about 50,000 direct workers in the cluster, excluding temporary workers and those compensated by production.

Constraints on enterprises

Upstream constraints (inputs): Due to high quarry licence fees and the crowding out of private operators by state-owned enterprises, the supply of locally sourced marble blocks has decreased drastically in recent years. This has forced enterprises to import much of their raw material (notably from Italy, Spain, Turkey and Portugal), significantly increasing production costs.

Production/processing constraints: The marble industry is capital intensive, with a high dependence on heavy machinery for loading, cutting and polishing. Most machinery and technology is imported, typically from Italy, China, or Turkey, and usually requires maintenance by teams sent from the country of origin. Due to the high cost of machinery and maintenance, some enterprises continue to rely on outdated technology or manual labour for much of the production process. The cluster also lacks reliable access to essential utilities such as electricity, water and sewage systems.

Downstream constraints: As of 2024, Egypt was the fourth largest exporter of marble building stone worldwide, behind only China, Turkey and Italy. The main export destinations are Libya, Saudi Arabia, UAE and China. The cluster's ability to compete in high-value markets is hampered by operational inefficiencies and weak branding. A low-price, high-volume strategy has led to export profit margins that are often negative. Despite this, many businesses continue to export in order to secure the foreign exchange that they need to import raw materials and machinery. Meanwhile, high inflation and limited access to affordable credit has led to a softening of domestic demand for marble, particularly in the construction and real estate sectors.

[1]The outcomes of the sector assessments, conducted for the leather tanning and marbles sectors as part of the ILO project, were presented and discussed along a series of events and meetings, including through a validation workshop that took place in June 2025, that aimed at validating the results and ensuring national stakeholders' endorsement.

Working conditions

Informality and lack of social protection: Most workers in the cluster operate informally without signed contracts, social security or health insurance. Sudanese workers currently constitute an estimated 50 per cent of the labour force in the cluster.

Gender: The very few women employed in the sector tend to be concentrated in administrative roles and located outside of the Shaq Al-Tho'ban cluster.

Lack of access to training: Despite a high demand for technical skills, there are no specialized vocational training institutions dedicated to the marble industry except for the technology centre under the Ministry of Industry.

Lack of social dialogue mechanisms: There is no established worker union within the cluster, and most workers do not have a formal mechanism for addressing workplace grievances.

Health and safety: Workers face prolonged exposure to dust and the risk of chemical burns from concentrated sulfuric acid used for polishing the marble. Accidents also occur due to lack of training on safe handling of machinery. Yet there is no dedicated medical facility or ambulance within the cluster.

Environment: The cluster is marked by high water consumption, significant mineral waste, and poor waste management. The manufacturing process generates large volumes of sludge waste known as sahala, much of which is dumped in unsupervised areas.

Suggested activities

The report outlines a number of suggested activities to address identified constraints:

- Strengthening cluster governance.
- Developing a cluster information and management system.
- Enhancing skills development and workforce retention.
- Improving occupational safety and health (OSH) practices.
- Supporting enterprise and jobs formalization.
- Facilitating access to domestic and export markets.
- Improving access to business development services and finance.
- Improving waste management and environmental practices.
- Supporting technology upgrading and innovation.

1. Introduction

1.1 Background and objective

The productivity ecosystems for decent work in Egypt project is a collaborative initiative between the International Labour Organization (ILO) and the Egyptian Ministry of Industry. Funded by the Italian Directorate General for Development Cooperation, it is designed to enhance productivity and improve working conditions within two key industrial clusters: the leather tanning sector in Robbiki and the marble sector in Shaq Al-Tho'ban. These sectors are integral to Egypt's economy but face structural constraints that hinder their growth and the promotion of decent work. The purpose of this study is to map conditions affecting productivity and decent work. It is intended to serve as a guide for designing tailored activities to address identified problems, focusing on activities at the sector (meso) and enterprise (micro) levels.

1.2 Methodology

The study employed a mixed-methods approach. Secondary research included a review of existing literature, such as policy documents, market studies, economic reports, academic papers, sectoral statistics, productivity trends, labour market conditions and export performance data. It also included an assessment of the relevant regulatory frameworks.

Primary research involved field visits to the Shaq Al-Tho'ban marble cluster to observe sector dynamics and working conditions firsthand, meetings with companies of different sizes to identify productivity challenges and decent work deficits, and focus group discussions and stakeholder workshops to engage industry players in identifying constraints and proposing activities. It also entailed key informant interviews with representatives from government, business associations, enterprises, and workers' organizations, as well as a survey of enterprises in the Shaq Al-Tho'ban cluster.

Figure 1: Approach to the study

Inception	Desk research	Primary research	Analysis	Draft two reports	Validation	Final report
• Study framework • Consultations • Mapping key stakeholders	• Review of existing literature and data.	• Interviews with key informants. • Engagement workshop. • Focus group discussions. • Enterprise surveys.	• Qualitative • Quantitative	• One of the marble sector focusing on Shaaq-Al Taaban • Other on leather tanning focusing on Robbiki city.	• A consultative workshop including all stakeholders. • Pitching of study output. • Consultation & recommendations.	• Finalizing and submitting the two studies.
Key indicators:						
• No. & size of companies and complexes. • Percentage of unregistered projects. • Productivity, cost structure, & profitability. • Export levels and growth potential. • Workforce size, skills, conditions, & formality. • Growth & value-addition obstacles. • Policies & regulatory framework.		• Value chain analysis and market structure. • The most important obstacles and priority gaps to deal with to increase productivity. • The root causes behind these obstacles. • Proposing areas of intervention through the project and implementation partners. • Other recommendations.			• The final version of the two studies. • Interventions and final recommendations.	

Measuring productivity is critical to assessing sectoral contributions to economic development and improved living standards. Productivity can be viewed across three dimensions: labour productivity (output per worker or hour worked), capital productivity (output relative to capital inputs such as machinery and equipment), and multi-factor productivity (MFP), which captures the combined efficiency of labour, capital and other inputs such as technology and materials. Quantitative measurement of productivity in this study was hindered by significant data limitations, including outdated and fragmented statistics, a high level of business informality, and a lack of reliable data on production volumes, working hours and capital utilization. Given these challenges, productivity was primarily assessed qualitatively through field observations, stakeholder interviews, and focus group discussions, complemented by quantitative insights drawn from an enterprise survey.

2. The broader context

According to Egypt's 2017/18 economic census, micro, small and medium-sized enterprises (MSMEs) make up over 98 per cent of the private sector, with micro enterprises constituting nearly 95 per cent of all establishments. MSMEs operate mostly in the trade and services sectors, with fewer in manufacturing. In terms of employment, MSMEs provide an estimated 75 per cent of private-sector jobs in Egypt (CAPMAS 2019). Despite their limited capital intensity, MSMEs – especially micro enterprises – serve as important entry points into the labour market for low-skilled workers, particularly in informal settings.

Egypt's informal economy represents around 40 per cent of GDP (ILO, 2024). Recent policy reforms, including the MSME Law 152/2020 and tax reforms announced in 2024, seek to encourage formalization and ease compliance burdens, though uptake remains limited due to weak outreach efforts and lack of coordination across regulatory bodies.

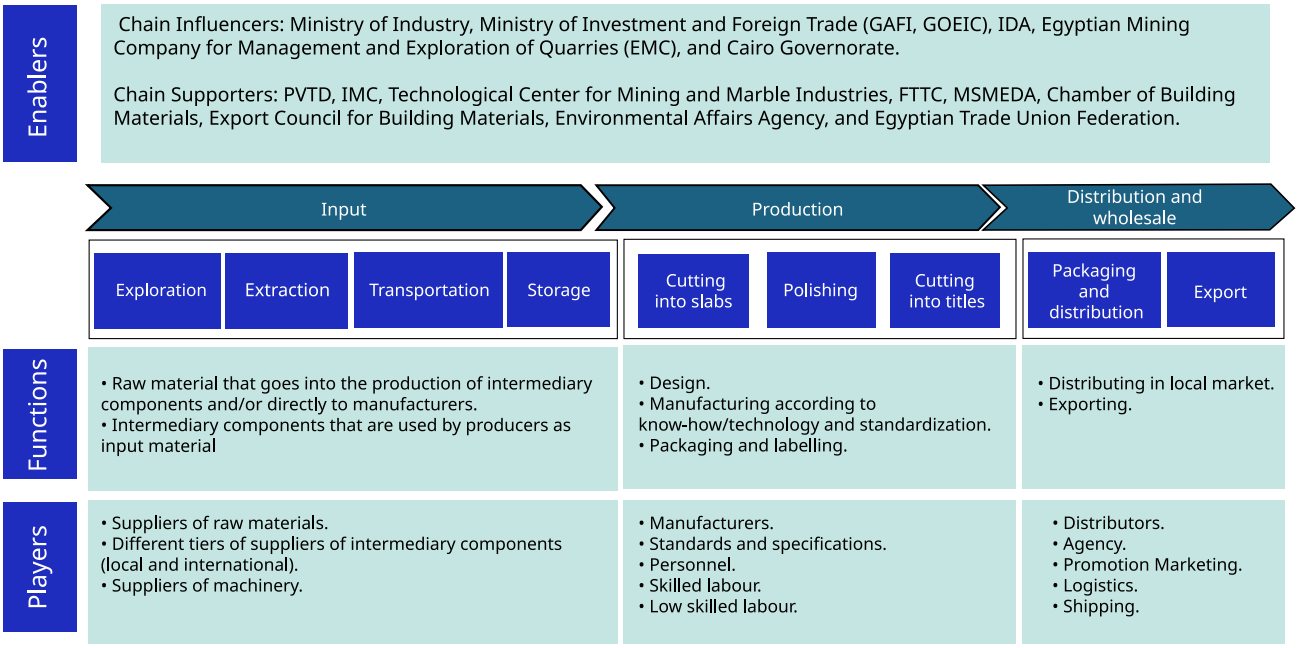
Informality is also a defining feature of Egypt's labour market. Around 67 per cent of total employment was considered informal as of 2021, including own-account workers and contributing family workers (CAPMAS 2019). Informality is especially prevalent in agriculture (97 per cent of agricultural workers) but also significant in industry and construction (ILO 2025). Workers in informal employment often face harsh working conditions, low wages, absence of written contracts and lack of social protection.

Egypt's marble industry is one of many affected by the recent macroeconomic fluctuations. The sector is reliant on imported raw materials, machinery and chemicals, making it vulnerable to foreign exchange volatility and rising costs. By increasing the costs of such imports, the sharp depreciation of the Egyptian pound has significantly affected the export competitiveness of Egyptian marble suppliers, who previously enjoyed a low-production-cost advantage in global markets. High inflation and limited access to affordable credit has also led to a softening of local demand for marble, particularly in the construction and real estate sectors.

3. Marble sector in Egypt

3.1 Sector overview

Figure 2: The marble value chain



The marble value chain in Egypt encompasses a wide range of activities, from raw material exploration and extraction to processing, distribution and export. The industry is driven by both public and private-sector stakeholders, with key government entities such as the Ministry of Industry, Ministry of Investment and Foreign Trade, and the Egyptian Mining Company for Management and Exploration of Quarries (EMC) regulating and influencing the sector. The technological centre for mining and marble industries, the Chamber of building materials, and the Micro, Small and Medium Enterprises Development Authority (MSMEDA) provide technical expertise, financial support and market development assistance. (For more information, see table 1.)

The marble value chain consists of three major stages: input, production, and distribution and wholesale. In the input stage, raw marble is sourced from quarries, transported and prepared for processing. The production stage includes cutting into slabs, polishing and further refinement into tiles or finished products. This requires specialized machinery, skilled labour and adherence to industry standards. Finally, the distribution and wholesale stage cover packaging, domestic sales and exports.

Marble is extracted from quarries located all over Egypt, though particularly in West Minya and South Sinai (IDA, 2023). There are currently 340 quarries in Egypt, of which 183 supply marble (IDA, 2023). Egypt is rich in high-quality natural stone resources, with a diverse geological base offering a range of colours and textures. Some Egyptian marble types, such as Galala, Sunny, and Silvia, are internationally recognized and widely used in construction and finishing.[2]

[2] Other types of Egyptian marble include Ghazal dark, Ghiandone Aswan, Red Aswan, Nero Aswan, Rosa Sinai, Royal Red, White Halayeb, Red Imperial, and Karnak Grey.

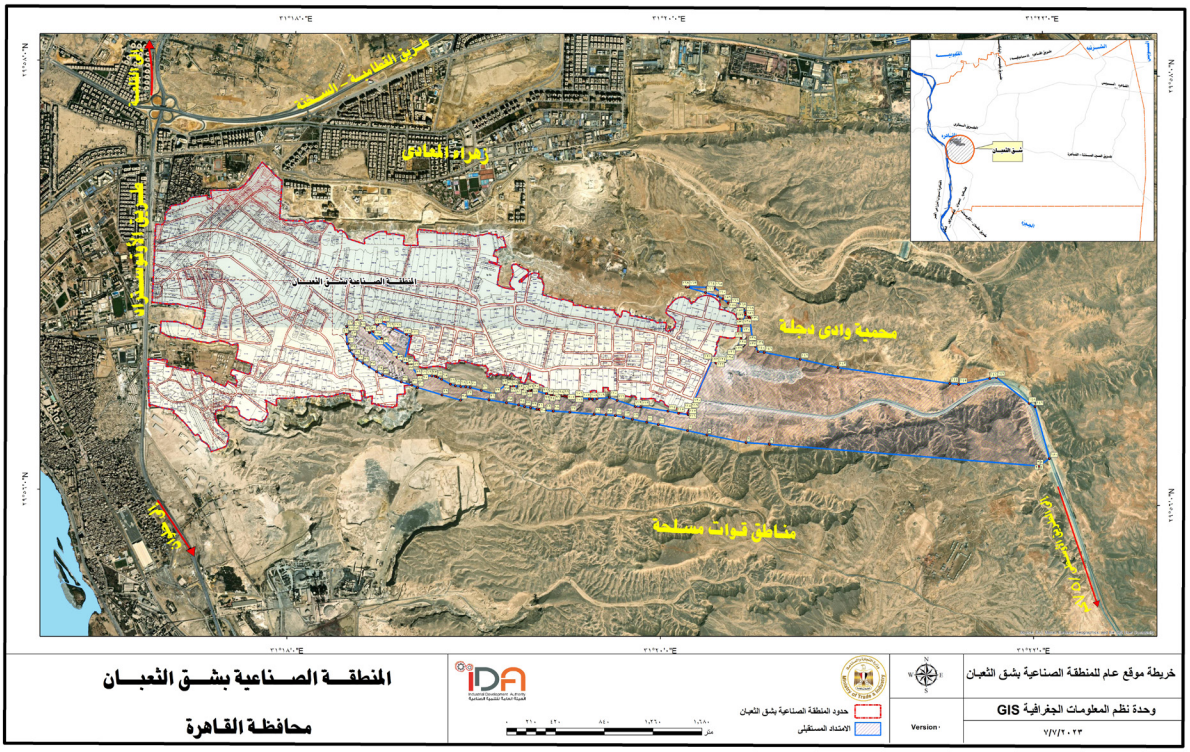
Reliance on imported blocks for raw material has been increasing. This is due to rising quarry licence fees, as well as the crowding out of private operators by state-owned enterprises in quarry operations and management, leading to a significant decrease in local suppliers of raw material.

As of 2024, Egypt maintains a significant position in the global marble industry standing as the fourth-largest exporter of marble building stone worldwide, following China, Turkey, and Italy. Within Africa, Egypt continues to lead in marble production and exports.

3.2 The Shaq Al-Tho'ban marble cluster

According to the Chamber of building materials, the Shaq Al-Tho'ban cluster contributes 90 per cent of the country's total marble production. It also accounts for 85 per cent of Egypt's total marble and granite exports and exports approximately 60 per cent of its production (IDA, 2023). [3] It has a maximum production capacity of 95 million square metres, though only about half of this capacity is currently being utilized (IDA, 2023). [4]

Figure 3 Map of Shaq Al-Tho'ban cluster



Source: Authors, designed based on the primary and secondary research

[3] As of 2024, Egypt was the fourth-largest exporter of marble building stone worldwide, following China, Turkey and Italy.
[4] Marble production is typically measured in square metres because the stone is usually cut into flat slabs and tiles.

A marble cluster began to emerge unplanned almost 40 years ago in the El Khayala area of Old Cairo but since early 1980s, Cairo governorate started moving the factories to Shaq Al-Tho'ban, due to the cluster's increasing expansion. Growth in the new location continued to be organic and informal, with much unofficial land use by cluster members, many of which built on top of the local limestone landfills.

The Shaq Al-Tho'ban cluster is located in the Tora Maadi area of the Cairo Governorate. Its location near the Cairo Autostrad road that connects it to the quarries of Upper Egypt and the Red Sea and makes it relatively accessible to manual labour from nearby governorates. A presidential decision created a plan to transform the cluster into the City of Marble and Granite and establish it as an export base.

According to the Chamber of building materials, the Shaq Al-Tho'ban industrial cluster contains an estimated 2,525 enterprises, including 1,300 to 1,400 factories and 700 to 900 workshops of smaller sizes (the range is due to the informality of many of the enterprises).

According to IDA, there are about 50,000 direct workers in the cluster, excluding temporary workers and those compensated by production. Most enterprises employ fewer than 50 workers, and only around 100 enterprises employ 50 workers or more.

Administratively, Shaq Al-Tho'ban is an industrial zone under the jurisdiction of the Cairo governorate (South Cairo district). While legalization of land use is the responsibility of the Cairo governorate, the Industrial Development Authority (IDA) handles the regulation of enterprises in the cluster, dealing with business registration, operating licences and permits that enable enterprises to import and export.

The Industrial Development Authority produced a draft strategy for export development of the marble and granite sector. This includes an ambition to transform Shaq Al-Tho'ban into one of Egypt's largest and most advanced industrial centres and position the country as an important contender in the global marble industry. It calls for the establishment of new industrial infrastructure, modernization of production facilities, and integration of advanced technologies to enhance efficiency and product standards. Environmental sustainability is also a priority, including the integration of waste management systems to mitigate the sector's ecological impact. These efforts reflect a strategic commitment by the government to develop a more sustainable, competitive and export-oriented sector.

Table 1 Key stakeholders

Category	Stakeholder	Role
Regulatory and industrial development authorities	Ministry of Industry (MoI)	Supports and regulates industrial clusters such as Shaq Al-Tho'ban, streamlines licensing and compliance processes, promotes exports and trade agreements, encourages clean and advanced technologies, coordinates with relevant ministries on sustainable production and investment, and enables training and SME development across the marble value chain.

Category	Stakeholder	Role
	Industrial Development Authority (IDA) – under MoI	Regulates industrial growth, issues licenses, facilitates investments, supports industrial infrastructure, and manages formalization.
	Egyptian Mining Company	Manages quarries, oversees mineral extraction, and commercializes natural resources for industry.
	Egyptian Mineral Resources Authority (EMRA)	Regulates mining operations, grants exploration licenses, and ensures sustainable resource use.
	Cairo Governorate – executive authority for Shaq Al-Tho'ban:	Administers the Shaq Al-Tho'ban cluster, legalizes land for enterprises, and oversees infrastructure development.
	Egyptian Environmental Affairs Agency (EEAA)	Regulates environmental compliance and sustainable development in industrial operations.
Labour regulation entities	Ministry of Labour (MoL)	Regulates labour policies, ensures worker protections, facilitates foreign labour expertise, and supervises OSH and other working conditions.
	Ministry of Social Solidarity – National Organization for Social Insurance	Regulates social security for workers and ensures compliance with labour rights.
	Egyptian Trade Union Federation (ETUF)	Represents workers nationwide, coordinates trade unions, advocates labour rights, engages in social dialogue, and supports union services and governance.

Category	Stakeholder	Role
Industry associations and export promotion bodies	Federation of Egyptian Industries – Chamber of Building Materials Industries (CBMI)	Represents building materials enterprises, supports compliance, promotes workforce training, and facilitates investment partnerships.
	Export Council for Building Materials (EBCM)	Promotes global market access, supports exporters, coordinates with regulatory bodies, and conducts market studies.
	General Organization for Export and Import Control (GOEIC) – under the Ministry of Finance	Manages import and export control, ensures trade policy alignment, and oversees product standardization.
	Commercial Representative Offices	Represent Egypt in global trade negotiations, facilitate foreign business partnerships, and promote investment in industrial sectors.
Training and technical support institutions	Foreign Trade Training Centre (FTTC) – under MoI	Provides export training, develops trade and financing programmes, and assists enterprises in international expansion.
	Industrial Modernization Centre (IMC) – under MoI	Supports industrial modernization, assists in certification, provides technical advisory services, and develops industrial clusters.
	Productivity and Vocational Training Authority (PVTD)	Develops vocational training programmes, enhances workforce skills, and supports alignment with climate change adaptation methods.

Category	Stakeholder	Role
	Technology Centre for the Mining and Marble Industries – under MoI	Conducts research, provides technical training, offers quality testing and certification for exports, and supports technological advancements in the marble sector.
	Egyptian Organization for Standardization and Quality (EOS)	Sets industry standards, ensures quality compliance for exports, and supports certification requirements.
	Universities and research institutions	Provide academic research, develop sector-specific training curricula, and enhance R&D for industrial innovation.
Investment and development entities	Ministry of Investment and Foreign Trade (MoIFT)	Develops policies to attract investment, streamlines trade regulations, and supports international trade relations.
	General Authority for Investment and Free Zones (GAFI) – under MoIFT	Facilitates foreign and local investment, streamlines regulatory processes, promotes industrial clusters, and aligns investment incentives.
	Ministry of Finance – Tax Authority & Customs Authority	Handles taxation, customs procedures, and financial regulations affecting trade and industrial operations.
	Development organizations (such as IOs, GIZ, UNIDO, EU, WB, ILO)	Implement development programmes, provide funding, and support capacity building.
	Micro, Small and Medium Enterprises Development Agency (MSMEDA)	Provides financing and technical support for SMEs, focusing on financial inclusion, and develops handicraft and artisanal industries.

4. Constraints on enterprises

This section draws on an enterprise survey conducted under the project, as well as workshops and individual interviews.[4]

4.1 Upstream constraints (inputs)

The upstream segment of the marble value chain—covering quarrying, raw material access, and transportation of blocks—is hindered by outdated licensing regimes, high extraction fees, and poor regulation enforcement.

Due to high quarry licence fees, the supply of locally sourced marble blocks has decreased drastically, forcing enterprises to import much of their raw material – up to 50 per cent in some cases – significantly increasing production costs. The sector imports blocks from Italy, Spain, Turkey and Portugal. The cost of local versus imported raw material differs significantly, with local blocks priced at US$10 per cubic metre and imported ones at US$40, largely attributed to differing quality. Inefficient logistics and poor infrastructure for transporting raw materials have further increased input costs.

These upstream barriers limit the sector's ability to secure a consistent and cost-effective supply of raw materials, undermining productivity from the outset.

4.2 Production and processing constraints

4.2.1 Outdated machinery

The marble industry is capital intensive, with a high dependence on heavy machinery for loading, cutting and polishing. Most machinery and technology is imported, typically from Italy, China, or Turkey, and usually requires maintenance by teams sent from the country of origin. Due to the high cost of machinery and maintenance, some enterprises continue to rely on outdated technology or manual labour for much of the production process, resulting in both lower quality products and a higher probability for on-site accidents.

High waste rates (20–30 per cent) during the cutting and finishing stages reflect both technological inefficiencies and a lack of training in quality management and lean production techniques. Utilization of capacity is often below 40 per cent, especially among micro and small enterprises,[5] reflecting significant technological gaps between large exporters and smaller firms (necessitating differentiated and tailored interventions).

[4] The enterprise survey covered 13 respondents out of 30 enterprises targeted. While the sample size is too small to generalize, the findings provide indicative information about the cluster.
[5] The surveyed companies had an aggregate capacity of 455,000 square metres per month under optimum conditions, with an average of 50,556 square metres and a maximum of 120,000 square metres. Some 46 per cent of the companies said that they were fully utilizing their capacity.

Technology transfer and modernization are hindered in part by structural and institutional weaknesses. Many enterprises lack experience with advanced technologies due to limited exposure and weak channels for knowledge exchange. Moreover, the absence of regular training programmes, workshops and technical development initiatives has resulted in a workforce that largely lacks the skills to operate and maintain modern machinery.

4.2.2 Informality

Many sector stakeholders use the term "formal" to refer to enterprises that have simply legalized their land use with the government, and not necessarily those which have completed the full registration process or obtained a license from IDA. Land legalization fees (retroactive usufruct) vary depending on the number of years an enterprise has been in operation. Companies established less than five years are required to pay 1,750 Egyptian pounds per square metre, while those older than five years are required to pay 1,820 pounds. According to the Chamber of building materials, many businesses struggle to afford this, a factor contributing to continued widespread informality.

Widespread informality among enterprises restricts their eligibility for credit facilities, including for investments in advanced technology. High interest rates and volatile foreign exchange conditions further complicate financing, since almost all machinery is imported. The cost of acquiring high-quality machinery, along with associated maintenance and spare parts, therefore remains prohibitively high for many firms. Out of the companies surveyed, 54 per cent mentioned access to finance as a barrier to improved productivity and an area of desired support.

4.2.3 Lack of a skilled labour force

All of the surveyed companies mentioned challenges in hiring skilled employees. The factor mentioned most frequently was the low number of skilled candidates available, followed by lack of interest in the kind of work available, cluster location, unfavourable working conditions, and competition from other employers.

Figure 4: Main challenges in hiring skilled workers (number of surveyed companies reporting)

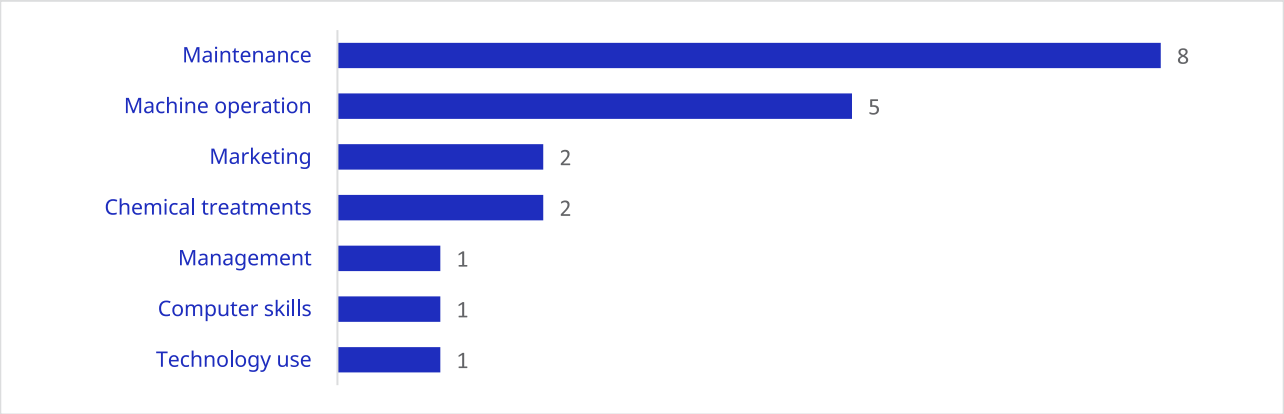
Source: Study enterprise survey.

Enterprises struggle with worker retention and high turnover, especially at the middle-management and worker levels. This is driven by ease of worker mobility between enterprises, but more fundamentally may be attributed to harsh working conditions and lack of job security. Many trained workers reportedly leave for better opportunities in other sectors.

Despite the high demand for technical skills, there are no specialized vocational training institutions dedicated to the marble industry except for the technology centre for the mining and marble industries under the Ministry of Industry. The nearest vocational school is in Beni Suef, which is 134 KM from the cluster. Most workers are trained informally within enterprises, mainly in maintenance and machine operation, followed by export marketing and OSH. Training programmes appear to be insufficient and poorly aligned with factory needs, apparently due to the absence of training needs assessments.

There is a critical demand for workers in maintenance, other technical roles, and export operations, as well as a strong need for skills such as language proficiency, computer literacy, trade operations, e-commerce, and customer relationship management (CRM). According to the marble technology centre, the limited number of trained maintenance technicians in particular exacerbates production delays.

Figure 5: Skills gaps (numbers of surveyed companies reporting)



Source: Study enterprise survey

Poor Occupational Safety and Health (OSH) practices, lack of environmental management, and informality of labour arrangements contribute to substandard/poor working conditions, which also lower productivity (discussed further under Working conditions).

4.2.4 Lack of infrastructure

A severe lack of basic infrastructure in Shaq Al-Tho'ban negatively affects production efficiency, worker safety, and overall business operations. In particular, the cluster lacks reliable access to essential utilities such as electricity, water, and sewage systems, as well as a sufficient internal road infrastructure. Poor infrastructural set-up of the cluster, coupled with operational inefficiencies and absence of support services and investment in upgrading, place downward pressure on productivity while hindering prospects for formal employment generation.

The Cairo governorate reportedly has spent most of the approximately 1 billion pounds it has generated from land legalization fees on the development of cluster infrastructure. According to estimates from the Cairo governorate, an additional 1 billion pounds will be needed to complete infrastructure development within the cluster.

4.3 Downstream constraints

Although Egypt has seen growth in the export of marble slabs, overall market access is constrained by weak marketing capabilities, absence of branding, and limited understanding of international standards.

Among surveyed companies, one third exported 100 per cent of their production, and a little over one fifth exported 50-74 per cent of their production. Some 240 marble enterprises are formally registered with the IDA for export operations. However, many companies say that they face excessive red tape when obtaining export certifications and related clearances, leading some businesses – particularly informal ones – to resort to exporting through intermediaries.

Libya, Saudi Arabia, and the UAE are key export destinations for Egyptian marble slabs and tiles, with declining reliance on China. Almost half of survey respondents aspire to penetrate European markets. However, the cluster's ability to compete in high-value international markets is hampered by operational inefficiencies and weak branding. According to workshop participants, Egyptian marble is widely perceived as "cheap" in international markets due to its low-price strategy.

Despite strong export activity, profitability remains a critical challenge. According to workshop participants, profit margins on the domestic market range from 10 to 15 per cent, while export profit margins are often negative. Many businesses reportedly accept losses on exports in order to secure the foreign exchange needed to import raw materials and machinery. In contrast, global profit margins for the marble industry range between 35 and 40 per cent, highlighting a competitive disadvantage for Egyptian producers.

Egypt's main competitors in the international marble market include Turkey, Iran, and India, which benefit from more advanced processing capabilities and better branding. While Egypt's price advantage allows it to remain a volume player, workshop participants emphasized that moving towards higher-value finished products, improved marketing strategies, and enhanced sector efficiency would help close the profit margin gap and increase the cluster's global competitiveness.

Since there are no standardized international certifications for marble that enable exporters to access all markets, importing regions and countries usually set their own requirements and standards. Egyptian enterprises often struggle to meet the required inspections and audits, which are usually conducted by third-party inspection companies.

Marble exporters also suffer from logistics inefficiencies, such as port congestion and delays in export subsidy reimbursements.

5. Working conditions

This section on working conditions in the Shaq Al-Tho'ban cluster is based on worker focus group discussions and interviews, supplemented by information from the enterprise survey.

5.1 Informality and lack of social protection

The majority of workers in the cluster operate informally, without signed contracts, social security or health insurance. This applies to both administrative and technical jobs. Although informal enterprises employ workers informally by definition, the survey found that 52 per cent of workers in formal enterprises were also informally employed. Moreover, the results of the enterprise survey suggest that formality is inversely proportional to enterprise size (reaching 70 per cent in some large enterprises in the sample).

An important reason behind worker informality in formal enterprises is that workers prefer not to be insured, so that they can have a larger take-home wage. At the same time, owners are not willing to assume the associated financial and administrative costs of providing such insurance.
The age of workers in the cluster is also an issue, with enterprises employing workers under the legal age.

Figure 6: Share of informal workers by enterprise (among surveyed enterprises)

Source: Study enterprise survey

5.2 Gender

Women's participation in the Egyptian labour force remains low by global standards, standing at 17.8 per cent in 2023, and the marble sector is particularly male-dominated. Women are largely absent from operational roles within marble manufacturing, mining and quarrying. The very few women employed in the sector tend to be concentrated in administrative roles and located outside of the Shaq Al-Tho'ban cluster. The lack of female workers is linked to the physically demanding and hazardous nature of the production environment. As such, mechanization of production processes and the development of the cluster's infrastructure could open pathways for greater female participation in the future.

Only two of the surveyed enterprises had any female employees: two women at one of the companies and four at the other, out of more than 100 employees each. Most of these women worked in management.

5.3 Wages

Most workers receive daily or weekly wages, with the average daily wage around 250 pounds. The survey showed that daily-wage workers represent 20 to 49 per cent of the workforce for a third of companies in the sector, though as much as 70 per cent for one quarter of the companies with 10 or more workers.

The worker turnover rate is high, reportedly often as little as one week, due to workers moving between enterprises with the incentive of a minor increase in wages.

The survey results showed that, on average, 26 per cent of workers were hired without prior experience. Labour is sourced mainly from Aswan, Minya, and Assiut, with Sudanese workers currently constituting an estimated 50 per cent of the labour force in the cluster. According to focus group discussions, enterprise owners prefer to hire Sudanese workers due to their low cost (50 pounds per day).

5.4 Health and safety

The marble cutting and polishing processes expose workers to hazardous conditions, including prolonged exposure to dust, which can lead to intestinal and renal diseases, as well as asthma and infections. Workers also risk chemical burns caused by the concentrated sulfuric acid used to polish the marble. Dangerous on-site accidents also reportedly occur due to the lack of training on safe handling of machinery.

Although worksite accidents are common, due to the lack of occupational safety measures, there is no dedicated medical facility, hospital or ambulance in the cluster. In most enterprises there appears to be weak knowledge and application of occupational safety and health standards, and even an absence of first aid units.

Enterprise owners mentioned that workers refuse to wear safety gear, a reluctance attributed to cultural preferences for comfort over safety, despite the health risks involved. Some owners further claimed that if they were to enforce the wearing of safety gear, workers would opt to leave for factories that were more flexible in this regard.

Most companies reported applying at least some OSH measures.

Figure 7: OSH measures reported by surveyed companies (number of companies)

Source: Study enterprise survey.

5.5 Social dialogue mechanisms

Most workers in the cluster do not have a structured or formal mechanism for voicing complaints or addressing workplace grievances. Moreover, there is no established worker union or official representation within the cluster to advocate for workers' rights or concerns. Instead, complaints are typically raised informally through direct communication with supervisors or factory owners, with responses dependent on employers' attitudes and willingness to address issues.

As per Law 213 of 2017, the trade union structure in Egypt starts at the enterprise level (shop floor committee) or geo-sectoral level (vocational committee) with a minimum of 50 workers. This is followed by sectoral trade unions with at least 10 member committees, and finally a federation, which includes at least seven trade unions. The relevant union for the marble industry under this structure is the mining and quarrying professional trade union. However, no committee-level unions have been established within the cluster. Moreover, in order for workers to form a trade union or be a member of one, they must be formally employed – a condition currently not met by much of the cluster's workforce.

5.6 Environment

The Shaq Al-Tho'ban cluster is marked by high water consumption, significant mineral waste, and poor waste management practices. Medium-sized factories consume significant amounts of water for activities such as saw cooling, dust suppression, and lubrication. According to the workers focus group discussion and Entrust (2017), the manufacturing process also generates large volumes of sludge waste known as sahala, much of which is dumped in unsupervised areas outside factories, contributing to environmental degradation.

Recent development plans for the cluster aim to align with international environmental standards, most notably through the establishment and operation of the Sahala waste recycling plant to reuse marble sludge. [8]

Some 77 per cent of responding enterprises indicated that they implement sustainability measures, though 84 per cent said they faced difficulties in this regard, mainly due to associated costs.

[7] Egyptian Trade Union Federation.

[8] شق الثعبان.. رحلة تطوير معقل صناعة الرخام والجرانيت من أجل الوصول للعالمية - بوابة الشروق." Al Shorouk, August 23, 2024.

6. Suggested activities

The diagnostic assessment of Egypt's marble sector, with a focus on the Shaq Al-Tho'ban cluster, reveals multiple structural and institutional challenges that collectively reduce productivity and undermine decent work. The constraints are multifaceted and interlinked. The interventions outlined in this section are designed to address these identified constraints and lay the foundation for a productivity ecosystem that delivers inclusive growth and decent work.

6.1 Strengthening cluster governance

Objective: Establish a functioning and inclusive cluster management body to coordinate licensing, service delivery, formalization efforts, and stakeholder engagement in the Shaq Al-Tho'ban marble cluster.

Constraints identified:

- Fragmented cluster and institutional coordination.
- Lack of leadership in managing cluster-wide initiatives.
- Limited stakeholder alignment and dialogue mechanisms.
- Inefficient public and institutional support mechanisms.

Key activities:

- Activate and strengthen the Cairo Company as the cluster management body.
- Facilitate the design of a multi-stakeholder governance model, including public entities, enterprises, and unions through technical assistance.
- Define a clear mandate for service coordination, licensing oversight and training facilitation.
- Organize regular public-private forums for dialogue, needs assessment and feedback.

6.2 Developing a cluster information and management system

Objective: Establish a digital platform that consolidates enterprise-level data (such as number of workers, capacity, certifications, training participation and OSH compliance) to support data-driven cluster management, enhance transparency and facilitate service delivery improvements in the Shaq Al-Tho'ban marble cluster.

Constraints identified:

- Lack of reliable and centralized data at the cluster level.
- Weak monitoring of productivity, training, formalization and other service provision initiatives.
- Limited capacity for evidence-based planning and service provision.
- Poor cluster data to support public policy advocacy and social dialogue.

Key activities:

- Design a digital platform in collaboration with the Technological Centre, IDA, the Chamber, the Export Council, IMC, and Cairo Company.
- Use the platform to connect and disseminate information among cluster members.
- Integrate modules to capture enterprise registration, licensing, training participation and compliance indicators.
- Build the technical capacity of cluster management staff to maintain and update the platform.
- Fund the initial stage of the platform development with self-sustainability measures, such as cluster member contributions and management and maintenance by the governing body.
- Pilot initial data collection, validation, and reporting processes.

6.3 Enhancing skills development and workforce retention

Objective: 8 Develop a structured approach to skills upgrading and workforce retention in the Shaq Al-Tho'ban marble cluster to address productivity bottlenecks and reduce high turnover rates.

Constraints identified:

- Limited access to structured, demand-driven training programmes.
- High worker turnover due to informal work relationships, precarious work conditions and lack of advancement opportunities.
- Skills gaps in machine operation and maintenance, polishing and quality standards.
- Low-quality products, especially in smaller enterprises.

Key activities:

- Support the design and roll-out of modular training programmes linked to core marble production skills (cutting, polishing, safety compliance), including machine operation and maintenance, coordinated in cooperation with the technology centre.
- Provide training on maintenance, technical roles, export operations, language proficiency, computer literacy, trade knowledge, AI-driven e-commerce and sales, customer relationship management (CRM) systems, industry-specific technological innovations, and SCORE.[9]
- Facilitate partnerships with vocational training institutions to align curricula with cluster needs.
- Provide technical assistance to selected SMEs to establish internal training and skills tracking systems.
- Facilitate internship pipelines between vocational institutes and cluster enterprises, incentivizing firms to host trainees and participate in curriculum design.
- Introduce enterprise-level incentives to retain workers post-training, for example through incremental wage increases and basic skill certification.
- Pilot intra-cluster non-poaching agreements among enterprises to stabilize the mobility of skilled labour.

6.4 Improving Occupational Safety and Health (OSH) practices

Objective: Strengthen Occupational Safety and Health (OSH) practices across enterprises in the Shaq Al-Tho'ban marble cluster to improve working conditions, reduce accidents and support sustainable productivity gains.

Constraints identified:

- Poor awareness and low prioritization of OSH in enterprises and among workers.
- Lack of basic protective measures and preventive practices.
- High rates of workplace accidents and occupational illnesses.

Key activities:

- Deliver cluster-wide OSH awareness campaigns focusing on key risks, such as dust exposure and machine safety.
- Conduct practical OSH training sessions for workers and supervisors with materials adapted to sector needs.
- Develop basic OSH self-assessment tools for enterprises to identify and mitigate risks.
- Support selected SMEs to adopt minimum OSH standards linked to formalization and certification pathways.
- Explore opportunities to link improved OSH compliance to incentives, such as preferential access to certain services or trainings.

[9]Sustaining Competitive and Responsible Enterprises (SCORE) is an ILO tool based on the intrinsic link between productivity and working conditions.

6.5 Supporting enterprise and jobs formalization

Objective: Facilitate formalization among enterprises in the cluster by simplifying access to licensing, registration and compliance support services.

Constraints identified:

- High administrative complexity and compliance costs for formalization.
- Limited enterprise awareness of the benefits of formalization.
- Weak linkage between formalization and access to tangible support services.

Key activities:

- Develop simplified formalization guidelines specific to marble enterprises, including licensing steps, cost estimates, and benefits.
- Organize mobile formalization clinics with government support agencies to assist enterprises with on-site registration processes, including legal advice, template documentation and fast-tracked licensing.
- Link access to training programmes, certifications and potential financial incentives to formalized status, stressing the benefits of formalization for the enterprise, workers and productivity.
- Facilitate dialogue with local authorities to streamline procedures for licensing and registration within the cluster (see also Strengthening cluster governance page 26).

6.6 Facilitating access to domestic and export markets

Objective: Strengthen market linkages for marble enterprises in Shaq Al-Tho'ban by supporting compliance with buyer requirements, promoting product quality improvements and enhancing cluster visibility in domestic and international markets.

Constraints identified:

- Inconsistent product quality and standards compliance.
- Limited visibility and branding in domestic and export markets.
- Lack of understanding of buyer requirements and export procedures.

Key activities:

- Provide information and technical assistance on meeting quality standards and buyer specifications for the domestic construction sector, including for artifacts and tombstones.
- Collaborate with the export council and Foreign Trade Training Centre (FTTC) to offer training modules on export documentation, product standards and branding.
- Facilitate access to certification programmes relevant to export markets, with focus on certificates for regions and countries with high untapped export potential.
- Support the development of basic marketing materials and digital presence for the cluster.
- Consider providing support to sector stakeholders to organize targeted business-to-business events with large buyers and construction firms and to participate in national trade fairs.

6.7 Improving access to business development services and finance

Objective: Expand the availability and uptake of Business Development Services (BDS) and facilitate access to finance for SMEs in the Shaq Al-Tho'ban marble cluster to support productivity growth and enterprise upgrading.

Constraints identified:

- Limited availability of sector-relevant, quality BDS offerings.
- Low awareness and uptake of existing support programmes.
- Financing gaps, especially for micro and small enterprises.

Key activities:

- Map and promote existing BDS and financing programmes relevant to marble enterprises.
- Organize BDS access days and financial literacy workshops within the cluster, especially for smaller enterprises.
- Facilitate partnerships between enterprises and local banks or MSME finance programmes and investigate means to overcome sector-related problems in credit decisions.
- Collaborate with MSMEDA and participating banks (such as NBE) to design blended finance instruments, including credit guarantees, low-interest loans for productivity upgrades, and green finance mechanisms.
- Provide technical assistance to enterprises to prepare bankable project proposals (such as for upgrading machinery and improving OSH compliance).

6.8 Improving waste management and environmental practices

Objective: Enhance environmental practices and waste management systems within the cluster to improve working conditions, reduce material losses and support sector sustainability.

Constraints identified:

- Lack of structured waste management and recycling systems.
- Unsafe working environments due to accumulation of dust and waste.
- Missed opportunities for material reuse and value creation.
- Productivity inefficiencies.

Key activities:

- Conduct cluster-wide awareness campaigns on safe waste handling and environmental practices.
- Support pilot initiatives for marble waste recycling or byproduct recovery (such as reprocessing small chips and dust consolidation).
- Facilitate partnerships with local recycling companies or research centres for waste valorization.
- Encourage enterprises to integrate basic waste sorting and storage practices into daily operations.

6.9 Supporting technology upgrading and innovation

Objective: Facilitate gradual technology upgrading in the cluster to enhance production efficiency, product quality and workplace safety.

Constraints identified:

- Heavy reliance on outdated production technologies.
- Low productivity and relatively high defect rates in marble products.
- Poor OSH performance linked to unsafe or obsolete equipment.

Key activities:

- Map current technology usage across the cluster and identify productivity gaps.
- Organize knowledge-transfer missions to and from leading producer countries, such as Turkey and Italy, with support from the Export Council.
- Provide technical assistance on the safe operation and maintenance of new machinery.

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