Ministero degli Affari Esteri
e della Cooperazione Internazionale

2025 | EVALUATION REPORT - SYNTHESIS

IMPACT FINAL EVALUATION

Initiative
“Development of the Long and Extra-Long Staple Cotton Value Chain”
-
Egypt

AID 11084

PROJECT IDENTIFICATION DATA	
Project Title	Development of the Long and Extra-Long Staple Cotton Value Chain
Project Number	AID No. 11084
Approval	Joint Committee for Development Cooperation, resolution of 13 June 2016
Entry into Force	6 December 2016
Actual Start Date	18 July 2017
Planned Duration / Actual Duration	24 months 48 months (closing date: 30 June 2021)
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Geographical Area	Egypt
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KEY EVALUATION DATA	
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Implementing Entity	IZI spa Via Cornelio Celso, 11 00161 Rome
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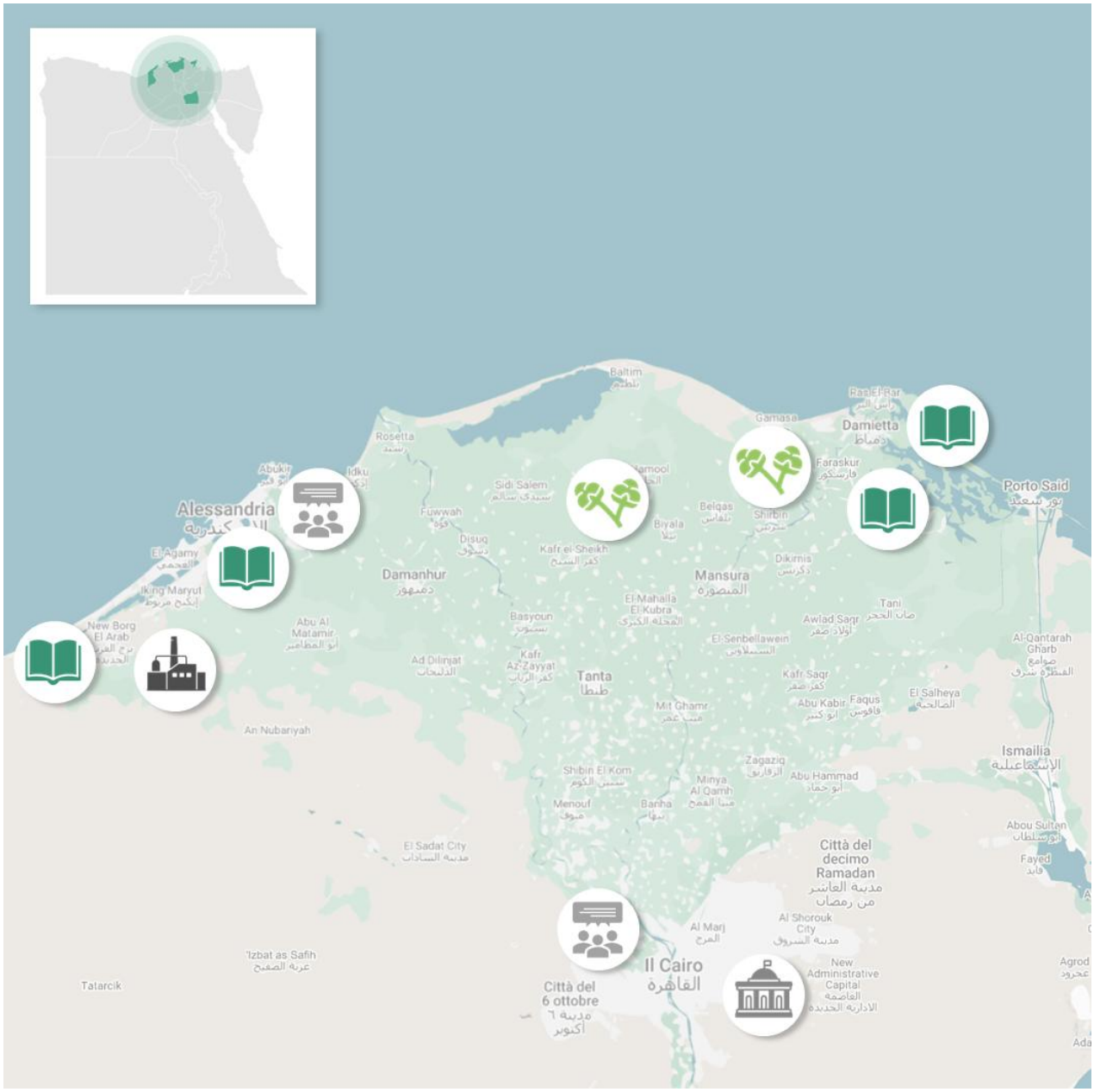
The opinions expressed in this document represent the views of the evaluators and do not necessarily coincide with those of the client.

PROGRAM MAP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Abu Hammad
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Fayed
El Sadat City
Al Marj
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'Izbat as Safih
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ACRONYMS

ACIMIT	Association of Italian Textile Machinery Manufacturers
AECE	Apparel Export Council of Egypt
AICS	Italian Agency for Development Cooperation
ALCOTEXA	Alexandria Cotton Exporters' Association
ARC	Agricultural Research Center
BCI	Better Cotton Initiative
BCSS	Better Cotton Standard System
CATGO	Cotton Arbitration and Testing General Organization
CAWI	Computer-Assisted Web Interview
CEA	Cotton Egypt Association
CLOA	Central Laboratory for Organic Agriculture
CRI	Cotton Research Institute
DAC	Development Assistance Committee
DGCS	Directorate General for Development Cooperation
DPG	Development Partner Group
ELS	Extra-Long Staple
EM	Evaluation Matrix
ENCPC	Egypt National Cleaner Production Center
EQ	Evaluation Question
ESG	Environmental, Social, and Governance
FAO	Food and Agriculture Organization
FDC	Fashion Design Center
FGD	Focus Group Discussion
HTEC	Home Textile Export Council
IC	Italian Cooperation
ICE	Agency for the promotion abroad and internationalization of Italian companies
ICTI	Industrial Council for Technology & Innovation
ILO	International Labor Organization
IMC	Industrial Modernization Center
IPM	Integrated Pest Management
ITS	Higher Technological Institutes
JC	Joint Committee
JCWG	Joint Cotton Working Group
LCA	Life Cycle Assessment
LS	Long Staple
M&E	Monitoring and Evaluation
MAECI	Ministry of Foreign Affairs and International Cooperation
MALR	Ministry of Agriculture and Land Reclamation
MENA	Middle East and North Africa
MoETE	Ministry of Education and Technical Education
MPBS	Ministry of Public Business Sector
MSMEs	Micro, Small and Medium Enterprises
MTI	Ministry of Trade and Industry
NCW	National Council for Women in Egypt
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development

PAPI	Paper-Assisted Personal Interview
SMEs	Small and Medium Enterprises
PMT	Project Management Team
PPP	Public-Private Partnership
PSC	Project Steering Committee
PSWG	Private Sector Working Group
RBM	Results-Based Management
RECP	Resource Efficient and Cleaner Production
SDG	Sustainable Development Goal
TDMEP	Trade and Domestic Market Enhancement Programme
TEC	Textile Export Council
ToC	Theory of Change
TTC	Textile Technology Center
TVET	Technical and Vocational Education and Training
UNIDO	United Nations Industrial Development Organization
WTO	World Trade Organization
ZDHC	o Discharge of Hazardous Chemicals

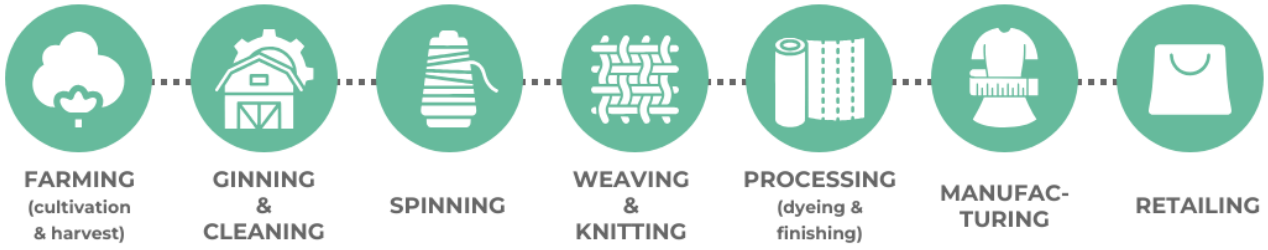
SUMMARY

1. CONTEXT

Egyptian cotton is internationally recognized for its exceptional quality and is considered a premier raw material for luxury textile brands, often referred to as "**white gold**". It remains a vital crop for farmers in the Nile Delta and Upper Egypt. The country's competitive advantage lies in the production of Long Staple (LS) and Extra-Long Staple (ELS) varieties, particularly Gossypium barbadense, which flourishes in the irrigated areas of the Nile. According to the Egyptian Agricultural Research Center (ARC), Egyptian cotton accounts for approximately 25-30% of the global supply of LS and ELS cotton.

Cotton production is largely managed by smallholder farmers in the Nile Delta, who cultivate privately owned plots using labor-intensive methods. Planting decisions are primarily based on anticipated returns and price trends in both international and domestic markets. The cotton supply chain is intricately linked to the broader textile and apparel sector, representing one of the most strategic value chains and significantly contributing to the national economy. In 2020, the textile and apparel sector constituted around 16% of the total value added to the manufacturing industry, underscoring its ongoing central role in industrial production and employment.

Figure1- Cotton Value Chain



Despite its esteemed reputation, cotton production has been experiencing a **long-term downward trend**. Price fluctuations, driven by various factors, have diminished profitability by compressing farmers' incomes and reducing cultivated areas. These dynamics restrict the sector's potential to enhance rural livelihoods, drive industrial development, and promote export growth. They also jeopardize the objectives outlined in the Egyptian Government's “Textile Vision 2025,” which seeks to expand cultivated areas, improve cotton quality, modernize ginning processes, strengthen the marketing system, and enhance the performance of textile companies.

This declining trend is linked to a **series of interconnected factors**. First, the reduction in cultivated area has directly impacted exportable volumes. Second, shifts in global demand have diminished Egypt's competitiveness: despite the solid reputation of Egyptian cotton, demand from the spinning and weaving industries has decreased as many production activities have migrated from Europe to Southeast Asia, where these countries are also cotton producers. Third, technological limitations have adversely affected both productivity and fiber quality. Recently, the decline in cotton yields and quality in Egypt has been partly attributed to the limited availability of modern equipment, inadequate transportation infrastructure, and outdated cotton cleaning facilities, all of which have compromised the quality of the product intended for export.

2. EVALUATION SCOPE

2.1. The initiative under evaluation

The initiative **"Development of the Long and Extra-Long Staple Cotton Value Chain"** in Egypt – hereinafter referred to as the "Egyptian Cotton Project" – was implemented by the United Nations Industrial Development Organization (UNIDO) with funding from the Italian Cooperation. The Egyptian Government's counterparts were primarily the Ministry of Agriculture and Land Reclamation (MALR) and the Ministry of Trade and Industry (MTI), supported by the Ministry of Education (MoETE) and the Ministry of Public Enterprises Sector (MPBS). The **official launch of activities** took place on July 18, 2017, upon completion of the Egyptian government approval procedures. Although the original duration was 24 months, the initiative lasted a total of 48 months.

The initiative has been integrated in the Egyptian government's policies to revitalize the country's textile sector and promote cotton as one of the **country's most historically important assets**. In this context, the project was developed in natural continuity with a five-year experience gained in the same field: the **"CottonForLife" initiative**, promoted by the Italian company Filmar SpA through its Egyptian subsidiary Filmar Nile Textile, and in collaboration with the Egyptian bank Alexbank of the Intesa Sanpaolo Group. Aiming to extend and consolidate the best practices tested in that context, the project therefore sought to promote a **new integrated and sustainable model for supply chain development**, aimed at *strengthening the economic performance, inclusiveness, and environmental sustainability of cotton cultivation and industrial processing, with a particular focus on long- and extra-long-staple cotton*. The approach adopted ultimately aimed to strengthen the entire value chain, promoting greater vertical integration, improving product quality, accessing new markets, increasing added value, and creating employment opportunities. In terms of operational structure, the initiative envisioned an integrated approach that addressed **two strategic macro-components:** the agricultural segment, relating to the cultivation and harvesting of raw materials; and the industrial component, encompassing the various stages of cotton transformation into textile products.

2.2. The objectives of the evaluation

This evaluation aims to analyze project results, both to ensure transparency and accountability and to provide useful information that can contribute to improving future interventions and the strategic direction of Italian ooperation in the country. From this perspective, this evaluation follows a **dual path**: on the one hand, assessing the overall effectiveness of the intervention aims to formulate sound, objective, and reliable conclusions that will allow the DGCS to define potential management response measures, consolidate the ongoing Phase II, and explore the initiative's replicability in other geographical contexts; on the other, disseminating the results will help ensure transparency for various stakeholders, accounting for the use of Official Development Assistance resources and helping to strengthen mutual accountability among the partners involved regarding their commitments. To do that, the analysis was conducted through a systematic review of the available documentation and through direct field verifications, based on the **standard evaluation criteria** adopted within the OECD/DAC framework: relevance, coherence, effectiveness, efficiency, impact, and sustainability. With specific reference to the **impact criterion**, the analysis focused on identifying and understanding the social, economic, and cultural changes the initiative has generated within the context of reference, with particular attention to assessing the project's contribution to structural and lasting transformations in systems, practices, or rules.

3. THEORETICAL AND METHODOLOGICAL FRAMEWORK

3.1. Methodological framework

The methodological framework of this evaluation was rooted in the **Results-Based Management (RBM) approach**, based on an in-depth and structured analysis of how the project connected strategy, resources, and assessments to achieve measurable and sustainable results over time. The evaluation was therefore based on the **combined use of two tools**: on the one hand, the Theory of Change (ToC), developed to reconstruct the project's intervention logic, i.e., the causal pathway between inputs, actions, intermediate results, and long-term objectives; on the other, the Evaluation Matrix (EM), which includes the Evaluation Questions the analysis seeks to answer, detailed in sub-questions, indicators/descriptors for their measurement, and data collection methods and sources.

3.2. Evaluation phases

As required by the Terms of Reference (ToR), the evaluation was structured into **three main phases**: inception, data collection and reporting.

The **inception phase** took place between May and June 2025. During this period, preliminary interviews were conducted with the AICS headquarters in Cairo and with UNIDO to obtain direct information on the initiative's origin, planning, and execution. A preliminary analysis of the available documentation on the initiative was also conducted. Finally, a detailed timeline for the subsequent phases was developed, including the plan for the field mission planned during the data collection phase.

The **data collection phase** began with a preparatory phase that included a thorough review of the project documentation, development of data collection tools, and logistical organization of the field mission. Due to bureaucratic issues, the field mission actually took place in January 2026; the new completion date for the service was therefore set for March 31, 2026. The **field mission** ultimately took place from January 17 to 28 and consisted of two main activities. On the one hand, part of the Evaluation Team, composed of Italian and Egyptian experts, collected qualitative data, including additional meetings with AICS Cairo and UNIDO, KIIs with key institutional stakeholders at various levels of governance in the cities of Cairo and Alexandria, two direct observation visits to the Borg El Arab textile cluster, and two focus groups with teachers from the Technical Schools of Borg El Arab and Damietta. In parallel, the remaining group of Egyptian experts conducted quantitative data collection in the governorates of Kafr El Sheikh and Damietta, visiting cotton-growing areas to conduct the survey of farmers and pickers benefiting from Component 1, for a total of six days of data collection between January 12 and February 3.

The **reporting phase** finally took place between February and March 2026. The Report was drafted based on four guiding principles: i) compliance with the evaluation framework and rigor of the analysis; ii) usefulness of the recommendations; iii) effectiveness and accessibility of

communication; iv) compliance with international standards. The entire process was also guided by the ethical principles of independence, impartiality, and absence of conflict of interest, confidentiality, integrity, and transparency, as well as competence, accuracy, and reliability. Once the final report was approved, a final seminar was organized to present the results, with the participation of the main stakeholders.

3.3. Data collection and analysis methods

The evaluation was characterized by a **mixed-methods design** that combined both primary and secondary data collection techniques, using both quantitative and qualitative data, and allowing the Evaluation Team to gather a wide range of diverse information. The analysis was then conducted using a **methodological triangulation approach**, through which each EQ was examined through the complementary use of multiple sources and tools, thus ensuring the robustness of the evidence collected and the validity of the results obtained. To assess the impact, a contribution analysis approach was also applied, aimed at exploring the causal link between project activities and observed changes, helping to estimate the extent to which these results could be attributed to the intervention under analysis.

The desk analysis was conducted as a **strategic preliminary phase to build the knowledge framework** necessary to support the entire research process, through the collection and processing of secondary data, both quantitative and qualitative. With regard to the project documentation, the Evaluation Team relied on the information officially shared by AICS Cairo and UNIDO. The field analysis was designed as a component of the research methodology to **gather primary evidence through direct engagement with project stakeholders and beneficiaries**. In conducting the analyses, the team applied a participatory method, which involves considering a variety of values and perspectives, addressing the interests of diverse stakeholders, and fostering collaborative relationships during meetings. The field analysis was conducted primarily through **three data collection tools**: i) surveys addressed to various groups of project beneficiaries; ii) focus groups with teachers from the technical schools involved; iii) semi-structured interviews with institutional stakeholders and key witnesses, which also included direct observations in the Borg El Arab textile cluster.

The survey to cotton farmers and pickers was administered in the governorates of Kafr El Sheikh and Damietta using the Paper-Assisted Personal Interview (PAPI) method, deemed the most appropriate for the respondents' profiles. The survey among the organizations participating in the ZDHC training was conducted using the CAWI (Computer-Assisted Web Interview) method, deemed the most appropriate for the target audience. In addition, two focus groups were conducted with teaching staff from the technical schools involved in the project's educational activities. The discussions allowed for a deeper understanding of the integration of project content into the curricula, the strengthening of teachers' technical and methodological skills, and the perceived impact on students' educational and professional opportunities. **The key informant interviews were conducted with the initiative's main stakeholders**, identified through a detailed stakeholder map developed in collaboration with UNIDO. Out of a total of 31 mapped entities (for a total of 39 contacts), 24 interviews were conducted: 13 in person, during the field mission, and 11 remotely. The interviews, which averaged approximately 60 minutes, were conducted using a semi-structured outline and, with the participants' consent, recorded to facilitate subsequent transcription and content analysis. As part of the KIIs, two visits were also carried out to the industrial plants of Filmar Nile and Albini Group to observe firsthand the adoption of the sustainable practices and technologies promoted through the project.

4. EVALUATION RESULTS

4.1.Relevance

Q.1. Do the project strategy and activities meet the beneficiaries' needs and the country's development objectives?

Q.1.1 To what extent does the project align with Egypt's vision of becoming a textile industry hub by promoting the added value of Egyptian cotton?

The project demonstrates **significant alignment** with Egypt's vision of becoming a textile industry hub and has acted as a practical operational tool for achieving the country's goals of enhancing the value of cotton across the entire supply chain. This initiative was part of the "Textiles Development Strategy - Vision 2025," published in 2015 by the Egyptian Ministry of Trade and Industry. Key guidelines from this strategy were integrated into the project, including **vertical integration of the supply chain** to internalize multiple phases with higher added value, **enhancing training**, **supporting certification and quality-oriented practices**, and establishing **public-private coordination bodies** that facilitate international partnerships.

The project's **multi-stakeholder approach**, which involved the simultaneous participation of technical ministries, research institutions, export associations, and large international private groups, was, according to all interviewees, a **crucial factor in its success**. This approach innovatively addressed the need to create a **truly integrated ecosystem** for the sector's development. In this context, the emphasis on **strengthening human capital** has been identified as essential for transforming the supply chain. This focus aligns with the National Strategy for Population and Development 2015-2030, which prioritizes investment in youth and women's empowerment as central to development policies. Ultimately, the project aimed to tackle the **challenges of inclusiveness** and improve the economic conditions of the most disadvantaged individuals through targeted interventions for young people and women in rural areas, promoting social inclusion, job independence, and reducing gender inequality.

Q.1.2 To what extent does the project reflect the needs and requirements of farmers and cotton enterprises in Egypt?

The project design analysis demonstrated a solid understanding of the fundamental constraints affecting the Egyptian cotton supply chain at the time the project proposal was developed. **Land fragmentation**, which has resulted in millions of smallholders owning an average of less than five acres each, is identified as a significant factor contributing to the economic vulnerability of the primary sector. The project prioritized interventions that addressed **economic, technical, and social dimensions** simultaneously. Its primary goal was to meet the increasing demand from major international brands for transparency, quality, and environmental and social sustainability, elements that could positively influence the bargaining power and profit margins of Egyptian producers. On the **industrial side**, the project tackled critical issues stemming from outdated production infrastructure and limitations in adopting technological innovations. Activities were designed to foster collaboration with technical institutions and industry associations to promote the transfer of knowledge.

Despite this strong alignment with the sector's needs, the evaluation analysis pointed out **limitations in the project design** that could have diminished its potential effectiveness. The scope of

interventions aimed at small and medium-sized enterprises might have benefited from a deeper consideration of the fragmentation of the production system and the lack of cohesion among supply chain stakeholders. Another significant issue is the challenge of effectively aligning the training provided with the actual skills demanded by the global market. As the pace of updating technical and managerial skills increasingly lags behind the rapid evolution of technologies and the specific requirements of more advanced markets, introducing a system of **continuous training for operators** would have been beneficial, along with the development of school curricula that may quickly become outdated.

4.2. Coherence

Q.2. Is the project aligned with the priorities and integrated with the actions of the international community in the intervention sector and in the Region?

Q.2.1 To what extent does the project align with the main international policies on sustainable development?

The Egyptian Cotton Project **aligns closely with international policies on sustainable development**, particularly the commitments made by Egypt and the global community under the **2030 Agenda and the Addis Ababa Action Plan**. From its inception, the project has prioritized sustainability as a core principle, encompassing its three dimensions: environmental, social, and economic. It aims to operationalize these principles through practices, tools, and models throughout the entire value chain.

In the **agricultural sector**, the project has assisted producers in using chemical inputs more efficiently, managing water resources effectively, and minimizing contamination during harvesting. Additionally, it has facilitated Egypt's participation in the Better Cotton Initiative (BCI), ensuring alignment with international sustainability standards. On the industrial side, the project has promoted responsible production practices, focusing on reducing hazardous chemicals and enhancing energy and water efficiency, including involvement in the ZDHC program. The **social dimension** has also been a key element of the project, incorporating actions designed to strengthen inclusion, participation, and the quality of work across the entire supply chain. Efforts have been made to promote decent work, integrate health and safety measures, and combat child labor. Lastly, the **economic dimension** has been approached systematically, with the project employing a dual strategy: first, to enhance the supply chain’s capacity to position Egyptian cotton in profitable and more stable markets, thereby expanding access to international trade; second, to gradually shift away from a predominantly extractive production model toward greater integration and the creation of added value at the local level.

Q.2.2 To what extent does the project integrate with the actions of other actors operating in the country in the same sector and with similar intervention methods?

The analysis of available documentation and direct stakeholder statements indicates a **notable level of integration and complementarity between the Egyptian Cotton Project and the existing ecosystem in the country**. This project, which leverages the private initiative "CottonForLife," serves as a case study in **scaling up a pre-existing initiative by effectively incorporating inputs and methodologies** developed by prior efforts. The project's capacity to **foster positive collaborations with other initiatives and stakeholders** primarily unfolds within broader strategic

frameworks, which encompass the cotton supply chain and intersect with various other sectors, often operating in synergy with the actions of individual stakeholders. In the context of **Egyptian development policies**, the initiative has not established parallel structures but has instead been integrated into government reform plans outlined in Vision 2030, thereby providing technical support for their implementation in the specific sector. Additionally, the project seems to align strategically with the **priorities of EU-Egypt cooperation**, actively contributing to the realization of shared objectives in trade and sustainable development.

Q.3. Is the project aligned with the priorities and integrated with the actions of Italian Cooperation in the intervention sector and in the Region?

Q.3.1 To what extent does the project contribute to the intervention strategies of Italian Cooperation in the sector and in the Region?

The project for the sustainable development of the cotton supply chain in Egypt is **significantly aligned with the strategic framework of Italian Cooperation**, adhering to the guidelines outlined in the "Three-Year Strategic Policy Documents." The adoption of the 2030 Agenda has coincided with the reform of Italian Cooperation, which has evolved from Law 125/2014 to the more recent "Piano Mattei for Africa." This evolution reflects Italy's renewed political commitment to using cooperation as a strategic tool for its external action. The project demonstrates strong alignment with the priorities identified by Italian Cooperation in terms of territory, sector, and intervention strategy. From a territorial perspective, the initiative fits seamlessly within the **priority geopolitical framework** established by Italian Cooperation, strengthening its presence in a region deemed vital for Mediterranean stability due to the interconnectedness of its shores.

Within the areas of intervention, the initiative **addresses multiple key sectors simultaneously**, showcasing a multidimensional approach that aligns with relevant guidelines. The standout sectors include: i) agriculture and rural development, ii) economic growth and decent work, iii) human capital development, iv) empowerment and social inclusion of vulnerable groups, particularly women and youth, and v) environmental protection and sustainability. The project also demonstrates significant innovative value in its intervention strategy. A multistakeholder partnership approach is increasingly important in this context, aiming to foster broad governance structures that enhance aid effectiveness. Additionally, the use of the multi-bilateral channel is expanding, with initiatives developed in agreement with the beneficiary government and implemented with the support of United Nations Agencies, (specifically UNIDO) to leverage their specialized expertise and sector knowledge.

Q.3.2 To what extent does the project integrate with other Italian Cooperation actions in the country?

The analysis of the available documentation and the collected evidence highlights a **strong level of integration of the Egyptian Cotton Project within the broader portfolio of AICS/Italian Cooperation initiatives in the country**. However, this integration appears to be primarily "strategic" and "operational" rather than the result of concrete and formalized synergies activated during project implementation. The project aligns well with the Italian agricultural and rural sector intervention strategy, in which Italy plays a coordinating role alongside the FAO within the relevant thematic platform of the Development Partners Group (DPG) in Egypt. By supporting economic growth, the project exemplifies the intervention model promoted by Italian Cooperation, serving as a bridge between public resources and private investments in sectors where Italy can add the most value. Additionally, the project demonstrates strong complementarity with the strategies implemented by Italian Cooperation in the area of Technical and Vocational Education and Training, aimed at enhancing the competitiveness of the Egyptian workforce in both regional and global markets. The

cotton supply chain project has adopted an approach focused on establishing a structured connection between the technical-vocational education system and the private sector, tailoring training modules to meet the specific needs of the labor market.

4.3. Effectiveness

Q.4. Did project activities enable farmers to improve the economic performance, inclusiveness, and sustainability of cotton production?

Q.4.1 To what extent have the expected results of the project under Output 1.1 been achieved?

The analysis of the achievement of expected results was based on data contained in the Final Report, particularly the **indicators in the Logical Framework**. This data was verified during the evaluation through interviews with various stakeholders and a survey conducted with beneficiaries. The results of Output 1.1 of the project supporting the Egyptian cotton supply chain indicate substantial success, significantly exceeding initial targets. The data highlight a **capacity to engage beneficiaries** well beyond the values outlined in the Logical Framework. However, simply achieving Better Cotton Initiative (BCI) standards has been viewed as an indirect factor in improving growers' economic performance, primarily due to the ability to secure better sales prices. This assumption, however, lacks support from an analysis of actual market conditions; interviews with stakeholders revealed a more nuanced picture. It became clear that the price gap between BCI and conventional cotton remains an unresolved issue: traders frequently purchase BCI and conventional cotton at the same source price but resell the sustainable product at a significant price differential in the international market. Consequently, the surplus generated by BCI cotton tends to concentrate further down the supply chain, benefiting more established traders.

Participation in the sustainable certification program reflects the significant success of activities aimed at raising awareness of the opportunities provided by production innovations. The establishment of **demonstration plots** in the Kafr El Sheikh and Damietta areas served as a vehicle for knowledge transfer and a concrete demonstration of the economic benefits of sustainable practices. These plots acted as genuine "field schools," enabling farmers, agricultural workers, women, and students to directly observe the application of integrated pest management techniques, efficient water use, and reduced chemical inputs. Technical reports from the demonstration plots indicated **convincing economic results**, with gross margins per feddan ranging between EGP 8,300 and 9,200, representing an approximate 30% increase compared to previous years. This increase resulted from adopting best practices that allowed for the rationalization of inputs and the enhancement of the product during the marketing phase.

In terms of **inclusivity**, the initiative achieved significant results in engaging women and young people, again exceeding expected numerical targets. However, it was challenging to determine the data collection methodology, as the detailed documentation reports varying values and, more importantly, classifies results from the same activities across multiple indicators. In the realm of **crop sustainability**, the aforementioned data regarding the introduction of the Better Cotton Initiative protocols in Egypt represent the most significant and well-documented outcome. This has led to beneficial effects on fiber quality and crop yields, potentially enhancing Egyptian cotton's position in the international market. One of the most innovative elements has been the gradual introduction of the **concept of traceability** within the supply chain, achieved through the documentation of various production processes at the individual farm level.

Q.5. Did the project activities enable companies to improve the economic performance, inclusiveness, and sustainability of cotton processing?

Q.5.1 To what extent have the expected results of the project under output 1.2 been achieved?

Output 1.2, aimed at enhancing the economic performance, inclusiveness, and sustainability of textile companies processing long- and extra-long-staple cotton, achieved **results that surpassed initial objectives**, despite some limitations in the supporting documentary evidence that prevent a fully comprehensive evaluation. Similar to Output 1.1, the project often exceeded its quantitative targets. However, certain indicators outlined in the initiative's Logical Framework were not actually measured, particularly those concerning the percentage of beneficiary companies that adopted energy efficiency and sustainability measures and the number of start-ups supported by the project. In the absence of documentation addressing this, it can be argued that there may have been a **progressive "imbalance" in implementation, favoring the agricultural component over the industrial one**. The support component for cotton processing companies was, in fact, more limited in its actions, with its results monitored primarily through participation in training and capacity-building activities.

The **training component** also included courses on entrepreneurship for technical school teachers and students, focusing on weaving and spinning techniques. The project reported the inclusion of 585 students in entrepreneurship curricula; however, this figure is hypothetical, as it is based on estimates of potential student participation in courses taught by previously trained teachers. This aspect was further strengthened by the Ministry of Education's adoption of weaving curricula and the development of training manuals at the Borg el Arab Technical School, leading to the launch of the first year of regular courses. On-the-job training for students in selected local textile companies, through specific agreements, created a practical bridge between training and the labor market, addressing the critical challenge of aligning developed skills with industrial needs. The new curricula were considered superior to the previous ones because they were more closely linked to industry and oriented toward a competence-based approach, aligning with the national reform of technical schools promoted by the Ministry of Education.

The initiatives focused on **sustainable fashion and the circular economy** included a series of workshops, highlighting the project's goal to create integrated training ecosystems that link technical skills with entrepreneurial creativity. The RE.ACT pilot project, executed in partnership with the Textile Export Council and an Egyptian denim manufacturer, showcased the technical feasibility of converting textile scraps into reusable yarn, even though it was an initial experiment with considerable room for enhancement. The planned institutional strengthening met its objectives through the participation of five key institutions: IMC, Textile Technology Center, FDC, Textile Export Council, and RMG Export Council. The **international promotion** efforts aimed to position Egypt within the global sustainable cotton arena by supporting the Cotton Egypt Association's participation in international trade fairs and communication initiatives. The adoption of BCI protocols, championed by the project, has enabled Egyptian cotton to address the increasing demand for sustainability, which is becoming a critical factor in certain European market segments, surpassing traditional quality metrics.

However, insufficient data disaggregation and a lack of information regarding the involvement of the most vulnerable groups hinder an accurate assessment of the actual achievement of inclusion objectives for this component, particularly concerning women, young people, and SMEs. Direct testimonies from companies indicate that gender inclusion remains minimal in the industrial sector due to structural constraints such as night shifts, the distance of industrial sites from urban centers, and regulations that restrict women's evening work. Overall, companies perceive the challenge of

incorporating social sustainability and decent work criteria into the industrial ecosystem as less complex in the manufacturing sector than in agriculture, as many already adhere to high standards based on their market positioning.

4.4. Efficiency

Q.6. Did the project management mechanisms facilitate the execution of the planned activities?

Q.6.1 To what extent have coordination structures and collaboration between UNIDO, local institutions, and private partners contributed to the efficient implementation of project activities and stakeholder engagement?

Overall, the management and coordination mechanisms of the Egyptian Cotton Project have played a crucial role in ensuring the initiative's efficiency. The project has shown a **strong ability to aggregate**, actively involving relevant stakeholders from various segments of the cotton supply chain throughout its duration. Also, the **roles and responsibilities of all the stakeholders were clearly defined** and formalized from the start of the project. This led to high operational efficiency by dividing tasks in a way that matched each partner's area of expertise and reduced overlaps.

The project set up a **governance structure with two main levels** to help stakeholders make decisions and work together. The Project Management Team (PMT) was responsible for operational coordination and activity execution, while the strategic oversight was assigned to a Project Steering Committee (PSC). This committee included key stakeholders such as AICS, UNIDO, relevant Ministries, and representatives from the growing community, industry, and the broader private sector. The initial design of the PSC aimed to establish it as the project's decision-making body, responsible for defining intervention guidelines and formally approving action plans. Its diverse membership and consensus-based decision-making process were intended to ensure representativeness and transparency. However, it is important to note that, despite the Project Document's provision for semiannual meetings, only two PSC meetings have been documented, occurring in December 2017 and April 2019, respectively.

Q.6.2 To what extent were resources made available in a timely manner for the inception and implementation of planned activities?

The analysis of the Egyptian Cotton Project's resource management presents an **overall positive assessment, despite some temporal inconsistencies, particularly during the initiative's start-up and closure phases**. Financially, there were no delays in disbursement or significant deviations from the plan; the final report (March 2022) confirms the complete utilization of the funds. In terms of **human resources**, the team was mobilized promptly and according to schedule: two months after the project's launch, the Project Management Team (PMT) was fully operational, comprising an International Senior Expert, an International Program Officer, a National Project Officer, and an M&E Officer, with support from a Finance and Administrative Assistant and a Driver/Logistics Assistant. Furthermore, the project’s capacity to gradually adapt its organizational structure to address specific needs is commendable. An important added value was the in-kind contribution from Filmar SpA, which was planned from the outset and provided highly specialized technical support, enabling local skills gaps to be addressed from the earliest stages. Additionally, the provision of **equipment and infrastructure** appears to align well with the adjustments made to the work plan.

Q.6.3 To what extent did the monitoring system contribute to verifying compliance with forecasts, tracking progress and informing operational decisions?

The analysis of the Egyptian Cotton Project's monitoring system reveals a **complex situation, marked by a solid formal structure but significant implementation challenges. From a design perspective, the Monitoring and Evaluation (M&E) system is well-structured**. The intervention logic is clear, with a coherent distinction between the project's two macro-components: agricultural and industrial. The targets and indicators for both outcomes and outputs are mostly relevant, timely, and measurable. They are also broken down by gender, age, and vulnerable groups in a way that makes sense. The data collection methodology appears well-formulated and integrated on paper, incorporating both quantitative tools (attendance lists, questionnaires, structured surveys, and checklists for demonstration plots) and qualitative methods (focus groups and field visits). Additionally, a baseline was planned at the project's outset to track progress against the initial contextual situation, along with a Progress Report before each Steering Committee meeting and biannual updates, culminating in a Terminal Report to be submitted within six months of the project's conclusion.

Despite having a solid theoretical framework, the monitoring system is one of the initiative's most critical components. The Logical Framework shows a structural flaw: while the project's activities and sub-activities are clearly linked to the target outputs, there is a lack of causal connections between these activities and the indicators, making it challenging to verify their actual contributions to the results. Another critical issue pertains to the **data collection and consolidation process**; specifically, the Key Performance Indicator (KPI) matrix and the Results Framework do not consistently align, with some indicators appearing in one document but not in the other. Moreover, although data disaggregation is anticipated, it is not systematically applied, restricting the system's capacity to provide an in-depth understanding of the impacts on specific groups. Lastly, there have been **notable delays in reporting**: the planned baseline was established approximately a year and a half after the project's launch, and the documentation reviewed indicates that only two Progress Reports were generated over four years of activity.

Q.6.4 How did flexibility in project management help you adapt to unexpected challenges, such as the COVID-19 pandemic?

The project life cycle analysis illustrates how the **adaptive management approach** served as a strategic element in enabling the Egyptian Cotton Project to navigate a **particularly complex and evolving operational environment**. Project governance demonstrated considerable flexibility, making modifications to the Project Document and the related Work Plan to address new needs. For instance, the introduction of the Better Cotton Initiative (BCI), which was not originally planned, has become essential in meeting the growing demand for "certified sustainable cotton" from international stakeholders. The **COVID-19 pandemic** posed an external shock that significantly hindered the smooth execution of the project. Restrictions on movement and the suspension of in-person activities hindered training, field demonstrations, and school initiatives, while the global crisis in the textile sector limited Egyptian cotton's ability to secure commercial outlets, thereby jeopardizing the economic sustainability of the supply chain.

In addition to these challenges, the adaptive management approach was employed as a **tool for institutional diplomacy and experimentation**. Interviews indicated that part of the project’s flexibility was directed toward accommodating government requests and market demands, even when these diverged from the initiative’s core focus, to maintain its relevance. For example, technical support was provided for the proposed cultivation of short-staple cotton in desert areas. Similarly, the unplanned opening of a "window" into textile waste recycling facilitated the production of significant studies, such as the RE.ACT report, which was vital for addressing the investigative needs

of the Ministry of Trade and Industry (MTI) and ensuring high levels of institutional engagement. This adaptability undoubtedly enhanced the project’s resilience and relevance. However, it is important to acknowledge that this has led to a partial dispersal of resources and attention concerning the primary focus and anticipated results.

Q.7 Did the communication actions contribute to promoting local participation and the dissemination of the results obtained?

Q.7.1 How did communication activities facilitate the active participation of local communities and beneficiaries in the project implementation phase?

The communication plan for beneficiaries of the Egyptian Cotton Project has been characterized by a **strong participatory approach, which is directly integrated into operational activities and aimed at promoting ownership of the initiative**. Different methods were employed depending on the various target groups. The communication strategy directed at agricultural producers was intentionally **mediated by existing local structures** to avoid direct channels that could cause the project to be perceived as an alien entity or disrupt local equilibrium. Additionally, the project placed significant emphasis on **transforming communication into a direct capacity-building tool**, which aimed to address beneficiaries' initial skepticism regarding the proposed sustainable practices and ensure concrete, long-term behavioral changes.

In the industrial sector, the communication strategy primarily focused on the **direct involvement of beneficiaries**, utilizing both the network of relationships established through the "CottonforLife" initiative and the channels of the private companies involved, along with the support and mediation of relevant institutions. In terms of objectives, this strategy played a **crucial role in market creation and knowledge transfer** within the manufacturing segment. In the fashion segment, communication also encouraged a **cultural paradigm shift**, promoting an approach to fashion that emphasizes sustainable production. **Schools primarily conducted outreach activities to youth**, incorporating the promotion of new curricula into their regular orientation and presentation efforts. Lastly, there is some noted **discrepancy in beneficiaries' awareness of Italian funding** among different groups. In the agricultural component, donor visibility is relatively limited; only one in four producers reported being aware of the funding from the Italian Cooperation. Conversely, in the private sector, awareness of the Italian Cooperation’s role appears to be significantly higher, likely due to the active presence of Italian companies, which served as indirect visibility agents for the initiative's Italian ownership.

Q.7.2. How did communication activities contribute to making the project's results visible at the local, national, and/or international level?

The project's dissemination and visibility strategy, outlined in a specific Communication and Outreach Plan, operated on two fronts: first, **consolidating institutional consensus for sustainable cotton production** at the national level, and second, **attracting international market demand to the country**. A crucial component of this approach was **the development of a robust brand identity**. The establishment of "The Egyptian Cotton Project" brand, featuring a symbolic logo that incorporates the most recognizable elements of the Egyptian cotton petal and a notable Egyptian landmark, was complemented by a corporate design manual intended to convey the project's personality and maintain communicative consistency.

Figure 2 - Egyptian Cotton Project Logo

Another important aspect is that the project did not introduce a new brand to compete with the traditional Egyptian one; instead, it aimed to enhance the existing "Egyptian Cotton™" brand. This involved supporting the Cotton Egypt Association in incorporating traceability and sustainability into its narrative, thereby presenting a cohesive and modernized image for the sector. In terms of **media coverage**, the project has achieved significant visibility, both nationally and internationally. More than 150 press releases were sent out, a photo archive was created, and a variety of printed materials, such as project briefs, brochures, and roll-ups, were made for advocacy and marketing purposes.

Regarding the awareness of Italian financing among key stakeholders, the assessment appears nuanced and somewhat mixed. All institutional and private stakeholders interviewed indicated that they were fully aware of Italy's involvement in the initiative and acknowledged its strategic contribution. However, this awareness does not always result in a clear understanding of the specific source of funding from the Italian Cooperation as an institutional funder. Outside official marketing and commercial promotion events, where Italian support was explicitly mentioned, Italy's presence is often perceived primarily through the direct engagement of Italian operators and businesses.

4.5. Impact

Q.8. What changes have occurred in the conditions of the populations in the affected areas, thanks to the increase in the environmental, economic, and social sustainability of the Egyptian cotton supply chain?

Q.8.1 To what extent did the project contribute to improving the socio-economic well-being of cotton farmers?

The project has **established the groundwork for enhancing the living conditions** of cotton producers through awareness-raising, training, market connections, and the introduction of sustainability standards. However, there is **limited evidence of lasting and measurable effects** on income, employment, and socioeconomic status. The absence of detailed baseline documentation has made it impossible to quantitatively assess the consolidation of the project's effects five years after its closure. In particular, there is a **lack of absolute data on farmers' incomes in the sector**.

The training activities have primarily resulted in significant changes in farmers' behavior. The findings suggest that the **project contributed to notable improvements** in cotton cultivation practices. Additionally, respondents reported a generally **favorable trend in sales following the adoption of the learned practices**. While these results are undoubtedly positive, they are still hindered by serious structural issues that risk significantly limiting the impact of the innovations introduced. Stakeholder interviews reveal several "systemic" constraints that continue to restrict the project's ability to generate lasting impact: **land fragmentation, lack of grower clusters, competition with other crops, and erosion of generational turnover**. The project's attempts to promote **market stabilization** have proven quite unsuccessful. The establishment of the Private Sector Working Group, which included international brands and traders coordinated by UNIDO and the Cotton Egypt Association, aimed to provide producers with greater certainty in economic planning and seasonal management. However, this initiative was abandoned after an initial phase of activity following the project's closure, failing to assume the role of a market regulator.

From an **environmental point of view**, the experimental interventions showed how new ways of farming can help the environment. The experience gained from the demonstration plots triggered a

multiplier effect, encouraging other farmers in surrounding areas to spontaneously adopt these practices, thereby extending the impact beyond the direct beneficiaries. Conversely, several interviews identified **climate change as an immediate threat to the sustainability of the positive effects** achieved; without renewed capacity-building efforts to address these new challenges, the benefits realized may be at risk of being lost. In terms of **employment** impact, the project utilized various channels for intervention. While the **educational component** has undoubtedly increased awareness and individual skills, lasting results are primarily observable at a **qualitative level**. There is no database of graduates to determine how many are currently employed, self-employed, or pursuing further studies. Finally, although women's empowerment was a stated objective of the project, its impact remains limited due to cultural and structural barriers. Furthermore, project results are not disaggregated by different beneficiary categories (small vs. medium-sized landowners, male vs. female-headed households, youth vs. adults), which limits the understanding of the distribution of impacts from the inclusive approach taken.

Q.8.2 To what extent did the project contribute to improving the profitability of cotton processing companies?

The initiative simultaneously targeted three key areas to enhance the profitability of cotton processing companies: **workforce qualification, the introduction of more sustainable industrial practices, and the development of higher value-added market outlets**. The overall effects seem to stem more from macro-sector trends than from an analysis of the companies' economic and financial indicators.

The first step towards improving profitability involved investments in **human capital** and the establishment of a more stable pool of young technicians trained to meet the industry's needs. The project's goal was to ensure a more consistent flow of qualified workers, equipped with the technologies and sustainability standards required by international markets. The project's outcomes focus on employment metrics, such as the number of participants in courses, study visits, and internships; however, there is a **lack of data on graduate absorption** rates within textile clusters or the actual reduction in turnover resulting from aligning training with company needs. Regarding **production processes**, profitability was primarily addressed through training aimed at enhancing resource efficiency and ensuring compliance with environmental and chemical standards mandated by major international brands. Workshops were conducted for managers, technicians, and workers in processing companies, covering topics such as water use, energy efficiency, and chemical management in accordance with the Zero Discharge of Hazardous Chemicals (ZDHC) approach, and also promoting circular economy models. Here again, the intervention's impact appears to be more about raising awareness than directly increasing revenue.

The project seems to have positively impacted the **revitalization of the Egyptian cotton brand**. In this context, it has undoubtedly contributed to bolstering government efforts, which have concurrently launched investment and supply chain modernization programs, resulting in increased export and production shares, as previously mentioned. Finally, the project's actual impact on initiatives aimed at supporting youth entrepreneurship and the creative sector, particularly through the Ministry of Trade and Industry's Fashion and Design Center, appears to be quite limited. Interviews indicated that the activities carried out (such as the selection of young designers, collaboration with Italian universities, fashion shows, and contests) were well-received, but these efforts ceased upon the project's conclusion.

Q.8.3 To what extent did the project contribute to reducing forms of labour exploitation, discrimination or social exclusion, particularly against the most vulnerable groups (women, young people, minorities, etc.)?

The project aimed to promote **more decent and inclusive working conditions** along the Egyptian cotton supply chain. However, available evidence indicates a strengthening of regulatory frameworks and institutional capacity rather than a measurable reduction in exploitation, discrimination, or social exclusion within the areas of intervention. Notable strengths of the project include the systematic integration of "Decent Work" principles and clauses addressing child labor, health, and safety, achieved through the adoption of Better Cotton Initiative (BCI) principles. Additionally, partnerships were developed with Egyptian organizations focused on women's and children's rights. It can be argued that alignment with BCI protocols has led to implicit improvements in child labor conditions. In terms of **gender**, the project aimed to establish formal partnerships with the National Council for Women and the International Labour Organization (ILO) to incorporate content on equal opportunities, prevention of exploitation, and promotion of decent work into capacity-building programs. This was particularly focused on modules related to agricultural extension, technical education, and agricultural schools linked to demonstration plots. For **young people**, the project primarily focused on strengthening Technical and Vocational Education and Training (TVET) programs and enhancing connections between technical schools, field demonstrations, and textile companies.

Q.8.4 To what extent has the project increased the awareness and capacity of local communities to adopt sustainable agricultural and production practices, while improving their resilience to climate change?

The project has **significantly increased local communities' awareness and capacity** for sustainable agricultural and processing practices and has begun to enhance resilience to climate change. However, evidence of continued adoption beyond the project's duration remains primarily qualitative and indirect. One notable finding from the interviews highlights the **visible impact of climate change** on the areas of intervention. The central issue is that the sustainable practices introduced during the project, which incorporated Principles 2 (water stewardship) and 3 (soil health) of the Better Cotton Standard into training modules and agricultural extension plans in the pilot areas, were tailored to climate conditions that are already shifting.

On the **industrial side**, the elements introduced to support continuity are mainly institutional. The inclusion of sustainability and traceability issues in national strategies for the textile sector indicates an effort to maintain cleaner production practices as a prerequisite for accessing international markets. Overall, the project seems to have played a significant role in raising awareness among farming communities and industrial stakeholders about the connections between production practices, environmental sustainability, and exposure to climate risks. Additionally, it has equipped institutions, schools, and businesses with the tools and standards necessary to sustain this change over time. Resilience to climate change should be viewed more as the anticipated outcome of a set of practices, such as improved water use, soil health, reduced dependence on chemical inputs, and circularity, initiated by the project rather than a measured outcome in terms of reduced community vulnerability.

4.6. Sustainability

Q.9. What is the appreciable level of continuity of the results obtained and the benefits brought upon completion of the project activities?

Q.9.1 Which project results, approaches or tools have actually been transferred or are transferable to other initiatives?

To highlight the transferable results, approaches, or tools of the Egyptian Cotton Project, the evaluation compared Phase I (2017-2021) and Phase II (2024-ongoing) of the initiative. The transition between these two phases revealed **significant evolution**, not only continuing existing activities but also **redefining the conceptual framework to address the changing market context and the enhanced maturity of the country's supply chain**. Phase I was designed as a pilot intervention within a system that was still poorly structured regarding sustainability issues. Its primary objective was to raise awareness, introduce basic sustainability standards, and establish initial operational alliances. In contrast, Phase II is more advanced—thanks in part to the results achieved in the previous phase—focusing on geographic scalability, institutionalizing the introduced practices, and bolstering the systemic competitiveness of the supply chain amid an increasingly demanding regulatory and market environment.

The first of the **clearly transferred and consolidated elements** is the integrated supply chain approach. This approach looks at all the links in the value chain at the same time and is seen as a key way to avoid operational bottlenecks and build a strong ecosystem. Second, the public-private partnership has been maintained and strengthened, involving structured collaboration among AICS, UNIDO, Egyptian institutions, and private companies. The Steering Committee continues to play a central role, while the previous PSWG has evolved into an Advisory Group with an even more strategic role in market alignment. The intervention's "pull" model has also been confirmed; this market-driven logic, where market demand propels backward improvements along the supply chain, has proven successful in ensuring the intervention's medium- to long-term economic sustainability. Finally, the social dimension, particularly concerning female inclusion and empowerment, remains a cross-cutting focus of the intervention. It maintains a gender mainstreaming approach that, at least at the programmatic level, permeates all other project components. In addition, the second phase methodologically strengthens this focus through the provision of a specific gender assessment.

Q.9.2 To what extent have the project results been stably integrated into the country's institutional practices and regulatory frameworks (e.g. school curricula, guidelines, regulations)?

A key indicator of an initiative's sustainability is the level of ownership of its results by national institutions. In this regard, documentary analysis and evidence gathered through interviews confirm that **a significant portion of the Egyptian Cotton Project's results has been progressively integrated into national practices, tools, and regulatory frameworks**. This integration helps ensure continuity beyond the formal closure of Phase I and creates a structured bridge to Phase II. From this perspective, **the components that have demonstrated the highest degree of institutionalization are undoubtedly in the agricultural and educational sectors**.

At the political level, one of the initiative's most tangible effects has been Egypt's membership in the Better Cotton Initiative. This membership has led to the country's official entry into a recognized international standards system for sustainable cotton cultivation. Furthermore, the CEA, in collaboration with CATGO, now manages the Better Cotton program, ensuring that the certification and promotion of sustainable cotton are rooted in a national body. This body is responsible for

protecting the broader "Egyptian Cotton" brand, strengthening national ownership of the process and reducing dependence on the international implementing body (UNIDO). The **educational component** also demonstrates a successful institutionalization process. The pilot curricula developed within the project—focusing on spinning, weaving, and sustainable cultivation—have served as the basis for revising the curricula of agricultural and industrial technical schools, as part of the broader national TVET reform promoted by the Ministry of Education.

5. CONCLUSIONS, LESSONS LEARNED, AND RECOMMENDATIONS

5.1. Conclusions

Relevance

1. The project demonstrated a **strong alignment with the Egyptian cotton sector strategy** and **effectively addressed the needs of workers and businesses** within the supply chain. Notably, the project exhibited significant adaptability by realigning its implementation phase to meet new challenges and demands. The introduction of Better Cotton Initiative (BCI) practices, which was not part of the original plan but ultimately became the central focus of the agricultural component, serves as a prime example.
2. This adaptability reflects the rapidly changing market conditions and underscores the necessity for the project to balance meeting beneficiaries' needs with managing their expectations. However, the project design has faced limitations in tackling certain structural issues within the supply chain, including access to credit, land fragmentation, and product negotiation distortions. As previously highlighted in the initial analyses, these **imbalances in the cotton supply chain** remain beyond the project's scope.

Coherence

3. The project demonstrated a **high level of alignment with the 2030 Agenda and key international benchmarks for sustainable development**. However, this commendable regulatory consistency was only partially reflected in operational integration with other initiatives. The ability to foster collaborations primarily emerges within broader strategic frameworks and at the intersections with other sectors, driven by the actions of individual stakeholders. These stakeholders, in particular, serve as a bridge between national public policies and European framework programs.
4. The project's role as a **notable example of Italian cooperation** is particularly intriguing. It implemented a highly innovative strategy for Italian cooperation that aligns fully with the Three-Year Programming Documents and the guidelines of the Piano Mattei for Africa, establishing itself as a valuable case study. However, its replicability in other contexts is not immediately evident due to the highly specific circumstances in which it was developed. This includes an already sensitized Egyptian institutional environment and the involvement of an Italian company with direct commercial interests in the Egyptian cotton supply chain. There is potential for experimentation with further integration of other initiatives promoted by AICS.

Effectiveness

5. According to the project documents, the project **significantly exceeded its quantitative targets**, both in the agricultural and industrial sectors. All initiatives were widely participated in, and the effectiveness of the intervention was generally appreciated. However, the failure to monitor certain indicators meant to assess performance in terms of income during implementation renders the evaluation of its effectiveness somewhat incomplete.

6. Therefore, one could argue that the project's effectiveness is better characterized as system effectiveness, focused on the construction of regulatory infrastructures and standards, rather than performance effectiveness, which would entail measurable improvements in the economic conditions of direct beneficiaries. **The project's transformative impact cannot be fully verified**; while it aimed to guide decisions based on market demands, it primarily concentrated on strengthening supply without achieving meaningful results in demand governance.

Efficiency

7. The project's governance was designed to be **participatory and representative** of a diverse range of stakeholders. The public-private partnership model was pursued with strong commitment, and clear roles were defined among UNIDO, AICS, Egyptian institutions, and private partners. The tools used to implement this governance were also crafted to ensure robust management effectiveness for the initiative; however, some critical issues were identified regarding the regular functioning of the Steering Committee.
8. **The project monitoring system, while theoretically sound, has exhibited operational weaknesses** and requires ongoing adjustments that lack supporting evidence. Overall, resource management appears effective and efficient, reflecting the implementing agency's established technical and administrative capacity. This adaptive management has positively contributed to responding to the pandemic and addressing local bureaucratic inflexibility, although in some instances, it has resulted in a partial dispersal of strategic focus and resources, particularly concerning experimental initiatives and institutional diplomacy efforts.

Impact

9. The project has initiated a **virtuous cycle**; however, **its impact on the socioeconomic well-being of farmers is not yet fully established**. The preconditions that have been created, such as awareness, training, regulatory standards, and branding, are tangible, but they still rely on a market ecosystem that has not evolved from the past. Without **continuous technical support**, some of the knowledge capital may rapidly deteriorate, particularly in the most vulnerable areas. Moreover, market demands are imposing **extra costs** that may negate some of the benefits generated by the project.
10. On the industrial front, the most significant contribution relates to competitive repositioning through the promotion of BCI and ZDHC standards and the revitalization of the Egyptian Cotton brand in international markets. Conversely, the impact on corporate profitability is difficult to isolate and seems to be connected to minor changes. The influence on reducing labor exploitation has primarily been observed in the **strengthening of regulatory frameworks**, while evidence regarding actual improvements in working conditions and the inclusion of vulnerable groups remains scant and inadequately documented.

Sustainability

11. With regard to institutional ownership of the project's results, the agricultural and educational components exhibit the **highest level of institutionalization**. The BCI has been integrated into the ministerial framework, the contamination guidelines are part of the CRI's technical heritage, sustainable cultivation has been recognized within the ministerial regulatory framework for the 2023-2024 season, and the pilot curricula have been incorporated into the national Technical Education 2.0 reform.
12. Phase II of the project marks a clear **transition from a pilot intervention**, which primarily focused on raising awareness and building operational alliances, **to a program aimed at scalability and the consolidation of results**. Although many elements are evolving due to the changing context, the strategic and methodological framework remains intact, demonstrating its effectiveness. However, it is important to note that the temporal gap between the two phases

has diminished the initiative's momentum, resulting in staff losses, interruptions of training activities, and the weakening of some partnerships.

5.2. Lessons learned

Integrated supply chain approach

1. The integrated approach allowed for simultaneous intervention across all links in the value chain (agricultural production, industrial processing, technical training, regulations, and branding) rather than on individual segments. This helped avoid bottlenecks: for example, the increase in sustainable cotton production capacity was accompanied by the adoption of industry standards (ZDHC), national guidelines, TVET curricula, and a repositioning of the Egyptian Cotton brand, striving to align supply, technical capacity, and market demand.
2. The main added value lies in the creation of an "ecosystem," not a sum of interventions: agronomic innovations find their way into an industry increasingly aligned with international standards, and curriculum reform helps train the workforce needed to sustain this change. Experience shows that an integrated supply chain approach is particularly appropriate when operating in sectors exposed to global standards (sustainability, traceability, due diligence) and where failures often arise in the interaction between segments (field–treatment, school–business, standards–regulation) rather than within each segment.

Public-private partnership

3. The public-private partnership was structured as a stable collaboration between AICS and UNIDO, Egyptian ministries (MALR, MTI, MoETE), technical bodies (CRI, CEA, CATGO, etc.), and companies in the sector (Filmar, Albini, Bishara, and other international brands). The private sector was not only a beneficiary, but also a co-designer and provider of expertise on sustainability standards, market trends, certification requirements, and technologies, providing facilities for hands-on training, buyer visits, and circular economy pilot programs.
4. The added value lies in the fact that the PPP made the project credible and aligned with real market needs, reducing the risk that the introduced standards would remain "on paper". The lesson learned is that PPPs work best when the private sector has a long-term interest in the sector, the public sector maintains oversight of policy decisions, and roles are clearly defined, thus maximizing the innovation and networking capabilities of companies and encouraging public decision-makers' awareness.

“Pull” model (market-driven)

5. The "pull" model resulted in upstream innovations (cultivation, field practices, training) being driven by more demanding downstream requests: international buyers and brands formulated sustainability requirements (BCI, ZDHC, traceability), which were used as a reference to calibrate training, standards, technical manuals, and educational curricula. Rather than "pushing" sustainable cotton onto the market, the project worked to ensure the market recognized the value of sustainable Egyptian cotton production, leveraging the relaunch of the Egyptian Cotton brand and entry into international networks such as the Better Cotton Initiative.
6. The added value of this approach is twofold: first, it increases the likelihood that the practices introduced will be economically sustainable over time, as they respond to real market constraints and opportunities; second, it provides a clear framework for the evolution from "voluntary sustainability” to “sustainability as a compliance” requirement (ESG, due diligence, digital traceability). As a lesson learned, however, the "pull" model requires mechanisms to ensure that the market premium is not concentrated downstream: the critical issues encountered during the evaluation exercise with reference to price governance have shown that market-driven

management alone is not enough to rebalance value chains in contexts with strong asymmetry of bargaining power.

5.3. Recommendations

Strategic governance and the role of coordination bodies

1. The Steering Committee's limited strategic oversight function was noted, effectively leaving UNIDO with almost exclusive responsibility for ongoing reorientation. This aspect, while not calling into question the commitment and effectiveness of the operators, does not allow for documentation of effective management control over the intervention, compromising the assessment of the validity of the choices made. It is therefore recommended in the Phase II of the project that the role of the new established Steering Committee be made operational and strategic, by establishing at least two annual meetings with binding minutes, an annual work plan, and systematic monitoring of updated indicators. This should prevent adaptive management from remaining solely with the implementing agency, and specific attention should be paid to the frequency and quality of meetings.

Baseline and impact-oriented M&E system

2. The M&E system remains the most effective immediate tool for capturing project progress and making appropriate corrections when necessary. The limitations documented in the evaluation, in terms of the lack of a solid baseline and longitudinal tracking of key beneficiaries, risk compromising the effective interpretation of the intervention and the full appreciation of its positive effects. In relation to the overall objective of the project in Phase II, it is recommended to address the limitations observed and more specifically: (i) strengthen the internal coherence of the Logical Framework by clearly explaining the causal links between activities, outputs, and outcomes; (ii) ensure a standardized, transparent, and verifiable data collection system, with clear indication of sources, tools, and responsibilities; (iii) systematically apply data disaggregation and strengthen quality control mechanisms; (iv) ensure regular, timely, and complete reporting, consistent with the established deadlines and the project's governance requirements.

Market mechanisms and effective rewards to farmers

3. One of the major challenges encountered is the extreme volatility of the cotton market. Therefore, it is recommended to address not only supply improvements but also demand governance, while recognizing the limitations of market conditions and legislative provisions, which in fact prevent long-term negotiations between operators in the supply chain. In Phase II, the new Advisory Group should evolve from the Private Sector Working Group, assuming the role of a stable coordination platform among supply chain stakeholders. In this capacity, it could help promote transparency, facilitate conflict management, and foster, where possible, negotiation processes between the parties, particularly regarding the definition of durable purchasing commitments with supply chain operators that explicitly link improved contractual terms to compliance with Better Cotton, regenerative, and social due diligence standards, including minimum indicators margins per feddan and actual sales volumes.

Access to credit and support for sustainable transition

4. The evaluation has identified some structural constraints partially addressed by the project (land fragmentation, absence of clusters, lack of transitional financial instruments), which limit the ability of small producers to maintain sustainable practices and bear the additional costs, also in consideration of the abandonment of specific rural finance instruments in the implementation of the project. It is therefore recommended to make the provisions of Activity 1.1.10 of Phase II (workshop on financial literacy) more concrete, transforming them into operational packages

negotiated with banks and public funds: subsidized credit lines, revolving funds for equipment modernization, digital traceability tools, with access criteria linked to participation in BCI/regenerative programs and with particular attention to rural women and youth.

Continuous agricultural extension and focus on climate change

5. Many beneficiaries have complained about the lack of ongoing technical support services in a context of rapidly changing climate factors. Therefore, it is recommended that agricultural extension be transformed from an episodic intervention to a structural function. It is therefore recommended that support and training activities for farmers in the Phase II will include not only demonstration plots but also ongoing extension services, with regular visits to growers (with a particular focus on the most vulnerable areas), annually updating technical packages to reflect new climate conditions (emerging pests, water stress, shifts in the crop calendar), and integrating data collection to monitor yields, costs, and basic climate indicators.

Digital traceability

6. To encourage the transition from "voluntary sustainability" to regulatory compliance, data collection and digitalization must be considered a strategic investment, not an ancillary one. The planned Phase II activities, which focus on digitalization, AI, traceability, and ESG reporting, should aim to create a single system architecture to support partners in producing evidence for buyers and certifications. It would be advisable to adopt a unified digital supply chain platform, enabling the recording of field, industrial process, and due diligence (environmental and social) data in a format compatible with future Digital Product Passport requirements.

Strengthening industrial upgrading and technology transfer

7. In Phase I of the project, business activities focused primarily on training and awareness-raising on sustainability issues (ZDHC, resource efficiency, circular economy), without any real transfer of technological know-how or data collection on measurable improvements. In this regard, it is recommended to use the Phase II capacity-building plan for the industrial sector not only for training, but also to support a select number of pilot companies in technical audits, investment roadmaps, networking with technology providers, and targeted access to certifications (such as ZDHC, OEKO-TEX, GOTS), measuring actual results through economic and environmental indicators in terms of reductions in consumption, waste, and compliance violations.

Inclusion of women and youth along the entire supply chain

8. The evaluation found limited results in Phase I regarding female empowerment and youth employment, so it seems necessary to strengthen the inclusive dimension with more defined and impactful objectives and pathways. Phase II already includes a gender assessment and specific training activities, for which it is necessary to define and monitor operational targets (e.g., the minimum percentage of women and young people employed in qualified or entrepreneurial positions in the supply chain, the number of curricula and courses that include modules on equal opportunities and decent work, adequate measures to reduce dropout and absenteeism from internships), and prepare annual reports disaggregated by gender and age.

Programmatic continuity and sectoral coordination

9. Medium- to long-term sustainability is a key issue in development interventions, and it also affected the first phase of the project. When subsequent phases are planned, or actions are transferred to national counterparts, temporal discontinuity and transition difficulties often weaken the scope of positive effects, resulting in staff losses, interruptions in training activities, abandonment of partnerships, etc. It is therefore recommended in the Phase II of the project to assume continuity as an explicit programming objective and to develop, by the penultimate year of the project, a transition plan for any subsequent phases or full integration to national programs, as it was done in the case of the project proposal developed by AICS on skills training in the textile sector. At the same time, and in order to maximize synergies, operational

coordination with parallel initiatives in the textile sector (which remained at a potential stage in the first phase) should be strengthened as a permanent platform for joint planning, ensuring further continuity of the best practices developed, even after the intervention's conclusion.

Visibility of Italian Cooperation

10. Although all institutional and private stakeholders interviewed acknowledged Italy's role in the initiative, Italian Cooperation was not always identified as a public funder. Outside of official promotional events, Italy's presence was perceived primarily through the direct involvement of operators and businesses, generating overlap between the official development assistance (ODA) and industrial cooperation plans. In Phase II, it is recommended to adopt an institutional visibility strategy that explicitly distinguishes the role of Italian Cooperation from that of private Italian operators. More specifically: (i) use the official logo in all project materials systematically and uniformly; (ii) organize dedicated institutional events (ceremonies, sessions with Egyptian stakeholders, joint UNIDO–AICS press releases) in which Italian Cooperation is present as a public funder and not as part of the country system; (iii) introduce, where effective, a summary sheet on the mandate of Italian ODA in relations with Egyptian counterparts, to clarify the distinction between public funding and private commercial presence.