



TCI SANMAR CHEMICALS S.A.E

Road to Green Production Sustainability Report



2021/22

Report Parameters

The 2022 Sustainability Report is prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option

Reporting.

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A Memoriam to N Sankar



Road to Green Production
Sustainability Report
TCI Sanmar

His legacy lives on



N Sankar (NS, as he was affectionately called), Chairman, The Sanmar Group, was a doyen of industry and a role model for entrepreneurs and institution builders. With over five decades at the forefront of the PVC industry, NS was an unusual combination of business acumen and ethical conviction. He was an upright, farsighted and innovative leader.

NS believed that to be truly successful, management must integrate a sustainability mindset into their business models. His concern for the environment led to guaranteeing ZLD or zero liquid discharge amidst a slew of steps to ensure sustainable growth. All shore-based new plants had to implement water conservation at the design stage. Groundwater utilization must be minimized.

As an icon of the industry, NS was determined to bring technology to India to manufacture products of excellence. He entered into a Joint Venture with Durametall India at Karapakkam, Madras, which has now grown into the Sanmar Engineering Technologies Private Limited, catering to a wide range of process industries – even India's space missions.

Several successful joint ventures have followed since, some over 40 years now.

NS was singularly responsible for the birth of TCI Sanmar Chemicals in Port Said, Egypt, in 2007. His more than five decades of experience in the commodity businesses helped TCI Sanmar to establish world-class capacities for Caustic Soda and PVC in Egypt with an investment of USD 1.5 billion.

Under his able guidance, TCI Sanmar transformed itself into a largest chemical player, focusing on technology and adopting the highest environmental standards.. TCI Sanmar is now a USD 623 mn turnover company, with half of it coming from export sales bringing valuable foreign exchange into the country.

Ethics and Corporate Governance were an article of faith with Sankar. His influential saying **“Strictly follow the law of the land so that we can all sleep well at night”** could well be defined as his paramount preaching to the employees. The human touch often tempered NS's business decisions. However, his attention to detail and meticulous planning did rub off on his managers, who were empowered to discharge their responsibilities fearlessly.

NS received several honours and lifetime achievement awards from the Indian State and National level apex bodies for the chemical industry. He helmed such bodies as the Associated Chamber of Commerce, the Madras Chamber of Commerce and the Madras Management Association, besides sports bodies like the Tamil Nadu and the All India Tennis Association, the Madras Cricket Club and Tamil Nadu Cricket Association, and left his unique imprint on each of these institutions. NS was an avid sports enthusiast and one of the finest patrons of cricket and tennis.

His contributions to such bodies as Chennai Heritage and the Chennai Willingdon Corporate Foundation are further examples of NS's vision that extended far beyond business. NS passed away on April 17, 2022, leaving behind a legacy built on integrity with excellence to follow and build upon. We, in TCI Sanmar, are determined to march forward leveraging on our strong presence in Egypt and will continue this journey by adopting the highest governance and ethical standards set by our beloved Chairman, Mr Sankar.

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About this Report

The 2021-2022 Sustainability Report is the fourth report to be published, revealing TCI Sanmar’s sustainability approach and will present our value creation to stakeholders for the year ending March 2022. Some Information before 2021 and after March 2022 may be included to emphasize relevant context to the reporting period.



The report is prepared according to the Global Reporting Initiative (GRI) Sustainability Reporting Standards: Core Option. It is aligned with UN SDGs and the national sustainable development strategy Egypt Vision 2030.

This Sustainability Report contains forward-looking statements that are expected in the landscape of the petrochemicals industry both nationally and regionally.

These statements are not guaranteeing of future performance, and undue reliance should not be placed on them.

Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual performance and financial results in future periods to differ materially from any projections or results expressed or implied by such forward-looking statements



TCI Sanmar’s financial, environmental, social, and governance (ESG) performance and its business model have proven agility to allow swift adaptation to change; however, due to the rapid dynamics of technologies and new clients’ needs and considering the potential unperceived disruption of the COVID-19 pandemic, there is no assurance of the magnitude nor the pace of such changes.

Any errors discovered following the publication of the report will be corrected and displayed on our website.

Message from the Chairman



Dear Stakeholders,

It is my pleasure to share with you, on behalf of the Board of Directors, TCI Sanmar Chemicals' fourth sustainability report for the year 2021-22, marking our commitment to a sustainability approach and to creating value for all our stakeholders.

Thank you for reading this report as well as for your interest in and support of TCI Sanmar now and over time. The year 2021-22 was an extraordinary year for us on many fronts. This year, we deployed a strategic plan to expand our green production footprint. Doing so, we are committed to delivering green and low-carbon transformation in our operations. We are proud to have made several historic breakthroughs and achievements this year, bringing a fresh look and vitality to the company. Some of the important achievements include

Enlisting our products which are exported, namely Caustic Soda, PVC and Calcium Chloride Granules eligible for export incentives; in fact, the company has received the first tranche of incentive for the period from July 2021 to June 2022.

- ▶ Completion of VAT assessments for earlier years and have received credit in our bank for VAT paid on project imports
- ▶ Reduction of duty on import of Ethanol from 10% to 0%
- ▶ Getting Anti Dumping Duty levied on PVC imports from the USA into the country

We are thankful to the various governmental authorities for successfully completing the above tasks. Apart from the above, the company has also had remarkable achievements, including

- ▶ Successful completion of the restructuring of loans obtained from 9 Indian Banks on 30th June 2021, providing substantial liquidity relief to the company.
- ▶ Increase in domestic sales of PVC, thereby supporting several local industries/converters.

Nevertheless, the year 2021-22 had its own challenges, including overall cost increases particularly in freight and transportation, lower production of PVC thanks to technical issues that cropped up in VCM operations (which have since been resolved) and increased attrition levels of employees, etc.

As a leading global producer of chemical products, we continue to introduce reforms and innovations which contribute to sustainable performance. With an objective of raising the bar on safety standards and culture, the company has retained the services of DuPont Sustainable Solutions (DSS), India, a leading consultant in the field, for the implementation of Process Safety Management (PSM) and Behaviour Based Safety (BBS) which will improve workplace safety. This will be an ongoing assignment to be covered over the next few years. During the year 2021-22, effective training sessions were conducted by DSS, which included PSM, Incident Investigation, Process Hazard Analysis, etc

While this Sustainability Report for 2021-22 is our fourth annual Environmental, Social, and Governance (ESG) report, sustainability has always been integral to our DNA. Since TCI Sanmar's inception, our company has emphasized the paramount importance of safety and environmental responsibility, providing a positive work environment where our employees can grow and thrive; and being a good neighbour in the communities where we operate and live. As the sustainability landscape evolves, TCI Sanmar continues to provide greater transparency concerning our ESG standards, goals, and metrics and expects the same attention to sustainability from its Contractors and suppliers. Moreover, we have issued our first Environmental Product Declaration (EPD) report for our PVC resin.

As our customers seek more sustainable solutions, we partner with them to develop customized and innovative products and technologies to suit their complex needs. In the year under report, the company successfully introduced two more grades of PVC, namely, K value 57 (K-57) for fittings and K value 70 (K-70) for cables.

With the ongoing production of K value 67 (K-67) for pipes, the Company is now manufacturing all three PVC grades. This goes a long way to meet customers' specific requirements. In addition, we are researching economically feasible technologies to minimize our carbon emissions. This strategy includes energy-efficiency projects, increasing power from less carbon-intensive electricity, and other continuous operational improvements. It may be mentioned that the company is the only producer of Green attributed PVC by using Bio-Ethylene produced captively in its Alco Ethylene plant with sugarcanebased Ethanol as raw material.

In the years to come, the Company will continue to implement new development philosophy effectively and robustly to serve and integrate into the new development paradigm. While the Company will strive to deliver further all-round improvements in process management, reforms and innovation, quality, green transformation, digital updation and risk prevention, we will make every effort to achieve sustainable development in harmony with the environment, society and all other stakeholders.

Thank you for your support and interest in TCI Sanmar. Our efforts are to advance to a better world.

P S Jayaraman
CHAIRMAN

Our Sustainability Performance at a Glance



Environmental Performance

Operational Performance



Social Performance



CSV highlights



Health and Safety



Environmental Performance

1,933,475 USD

Total expenses related to improving environmental performance was 1,933,475 USD during the reporting period

1%

Our water consumption this year has decreased by 1% relative to last year.

10%

Our carbon footprint has decreased by 10%

516935 m³

A total of 516935 m³ of condensate was recovered in our ZLD system.

ISO 14001:2015

Renewed our ISO 14001:2015 Environmental management systems Requirements with guidance for use.

Operational Performance



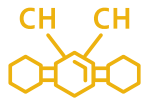
18%

PVC production has increased by 18%.



18%

The CaCl₂ production has increased by 18%.



51%

Caustic soda production has increased by 51 %.

ISO 9001:2015



Renewal of our ISO 9001:2015
Quality management systems —
Requirements.

302%

Green ethylene production
has increased by 302% since
last year.



Economic Performance



Financial Highlights

Our operating profit (EBITDA) has increased by 124% to USD 112 million in 2022

124%



Our PVC and Caustic sales quantity has increased by 17% and 58% respectively

**52 M\$-
1212 M\$**

Our total assets increased by USD 52 million to USD 1212 million in 2022



Sales revenue of USD 625 million had a YOY increase of 103% compared to 2021

Marketing Highlights



TCI Sanmar maintained its position as a market leader on the national level by maintaining minimum downtime.

2021
/
2022

In 2021/2022, TCI Sanmar resin has successfully penetrated the PVC Cables compounding market in Egypt

40%

Chlorine

55%

CaCl₂

20%

Caustic Soda

60%

PVC

TCI Sanmar acquired 40% of the market share of chlorine, 55% of the market share of CaCl₂, 20% of the market share of caustic Soda, and 60% of the market share of PVC in 2019/2020.

Almost 37 % of TCI Sanmar production is exported to several countries.



Procurement Highlights

Initiate monthly department reports for PR/ PO conversion, Orders created by each user, new suppliers developed, Issues, and Developments.

Expand department staff by 100% (10 Members instead of 5 Members) to meet recent local and global challenges and increase the rate of PR/PO conversion.

Ensures proper material supply with the required quality on time to avoid production interruption and losses.

Continuously monitor supply needs through the supplier's development plan that was started two years ago.

We succeeded in adding new suppliers in all categories with the help of all operational functions of the whole complex.



Social Performance



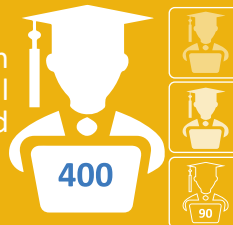
CSV highlights

2 EGP
.000.000

TCI Sanmar invested over EGP 2 million in the three rounds of the vocational training program between 2018 and 2022.

3rd Batch

TCI Sanmar celebrated in last March 2022, the 3rd batch of the vocational training program graduates

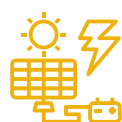


TCI Sanmar has successfully trained around 400 students (90 during the third round) throughout the training program in Canal Cities, Port Said, Suez, and Ismailia. The program curriculum includes Pneumatic control, Arc welding, Argon welding, Electric maintenance, PLC and Renewable energy (solar energy), and English and soft skills were provided.

- pneumatic control
- Arc welding
- renewable energy
- Argon welding
- electric maintenance
- PLC

New Addition

This year we added a renewable energy course to show TCI Sanmar commitment to sustainable development guidelines from capacity building perspective as well as from best practices application.





Health and Safety

Cross inspection group system is integrated to our day-to-day check-ups to get everybody concerned involved in Safety Inspection.

Total number of injuries has decreased by 44 % compared to the previous year and NO records of occupational health-related work diseases.

The entire TCI Sanmar team has completed the safety training.

A total of US\$ 2.2 million has been invested to enhance firefighting systems for the entire complex.



Governing Our Present and Sustaining Our Future

TCI Sanmar Chemicals S.A.E. established in 2001, is a limited liability corporation following the acquisition of Trust Chemical Industries by The Sanmar Group on 28th February, 2010. The company's legal status was changed from Limited Liability to Joint Stock. The corporation amended its Articles of Association in March 2011, March 2017, and June 2018. Changes in manufacturing capacity, project expansions, and the number of board members.

At TCI Sanmar, we hold a powerful reputation amongst our customers, employees, investors, suppliers, and all other stakeholders due to our consistent value creation. In accordance with Decree 134/2003, the firm has established an occupational health and safety council to ensure labor and environmental safety.

TCI Sanmar has a governance system with the purpose of overseeing the management of the company and ensuring the successful achievement of the long-term interests of its stakeholders. Its governance structure is responsible for setting ambitious standards while promoting advancement, accountability, and transparency.

At TCI Sanmar, we have an effective governance structure that articulates the core pillars of our sustainability journey allowing us to create value for our stakeholders.

Our corporate governance principles define the managerial structure, organization, and processes allowing us to be transparent and achieve continuous success. Our governance policies and procedures include our code of conduct, policy statement of ethics and business statement, code of corporate governance, and available best practices in corporate governance. All of which empower us to conduct our business in compliance with the applicable laws and regulations.



VISION

“Combining integrity with excellence to ensure prosperity to all stakeholders on a continuous basis”

PRINCIPLE INDUSTRIAL POLICY

Integrity	Stakeholder's Prosperity	Continuity	Excellence
			

Shareholders

Increase shareholder value by focusing on the optimal usage of resources.

Work Ethics

Ensure intellectual honesty in every aspect of work and monitor ethical status of operations continuously.

Society

Be a good corporate citizen and a responsible member of the community.



Customers

Professional excellence to meet or exceed customer expectations.

Employees

Enhance skills, provide opportunities to grow in a safe working environment.

2.1 TCI Sanmar Sustainability Roadmap 2026



Our sustainability strategy is represented by our commitment to sustainability by focusing on environmental, social, and economic aspects and integrating them within all of our functions.



Figure 1 TCI-Sanmar Sustainability Roadmap 2026

Aligning our sustainability agenda with our operations improves our performance and enhances innovation allowing us to best serve the interests of our stakeholders by having positive environmental, social, and economic impact while simultaneously reducing all related negative impacts.

Our sustainability strategy promotes better integration and covers our entire value chain through its future-oriented approach. The TCI Sanmar Sustainability Roadmap 2026, is aimed to transform to a cleaner and more sustainable production model while contributing to economic growth in several areas.



2.1.1 Reducing Waste

One of the key determinants to sustainability is waste. As a result, our new strategy considers the reduction of waste in all areas of the plant. Waste can be hazardous to the environment and to human health, so the prevention, reduction, and proper disposal of waste ensures the maximum level of human and environmental protection. We also manufacture PVC which is the primary raw material used to produce recyclable PVC cables.

This integrates multiple pillars of our strategy as it aids us in reducing waste, lowering emissions, and minimizing our negative environmental impacts.

We have a health and safety training program which educates our employees on proper waste reduction and disposal methods. It is essential that we ensure that our hazardous and non-hazardous wastes are managed correctly; therefore, each form of waste has its own set of waste management techniques that are extensively documented.

We have established a work instruction document for internal hazardous waste handling in the case of hazardous wastes generated by the manufacturing unit. Waste is then segregated and transported to an intermediate storage facility before being safely disposed through an authorized third party.



2.1.2 Healthier & Safer Environment

Our cross-cutting strategy builds on our employee.

We believe that employees have the right to a safe working environment, so our strategy aims to propel healthy labor conditions. As it has always been a business priority, we continuously boost the wellbeing of our employees.

We currently meet the international standard requirements and align with global principles regarding our safety standards. We have a safety committee that meets regularly with a representative from each department to discuss safety ambitions related to the plant, responsibilities, and recommendations.



2.1.3 Emissions Reduction

Another drawback of our operations is emissions. Aligned with our strategy we look to further reduce pollution, emissions, and hazardous leaks to minimize our impact on the environment. We plan to achieve this by continuing to work with local suppliers to guarantee efficient transportation thereby reducing GHG emissions. Our objective is to lower the environmental impact of chemical processing and manufacturing.



2.1.4 Diversifying our Talents

We embrace sustainability challenges in our industry, most prominently gender diversity. Due to the nature of our operations, we lack gender diversity, as result we have integrated it as an essential element within our strategy. Within the coming years we intend to demonstrate our commitment to inclusion by increasing diversity within our business.

We are committed to promoting equality and inclusion, so we look to hire more women to reach a more balanced hiring rate and offer equal opportunities allowing women to thrive and participate.



2.1.5 Boosting Technological and Economic Innovation

To provide innovative and economically competitive technologies that provide a competitive advantage not only to TCI Sanmar but to the industry as a whole. We implement customer research tracking to gather insights on product innovation to improve service and customer interaction for all TCI Sanmar offerings. Our stakeholder engagement enables us to uncover gaps in the market and as a result create innovative and sustainable products that minimize negative impact, promote social progress, and boost economic growth.

Moreover, we have a Research & Development team responsible for adapting and maintaining the latest technology models in the design, creation, and processing stages. At TCI Sanmar, we will consistently advance applications to support sustainability across all scales.

2.1.6 Allowing Continuous Environmental Assessment

To ensure real progress we aim to be transparent by consistently calculating and measuring the impact of our business activities along our value chain. We incorporate environmental, social, and economic criteria to guarantee a comprehensive and holistic review of our operations.

Alongside our annual sustainability report, we conduct a life cycle assessment to identify significant impact areas and aid in the development of more sustainable policies. To make further advancement in sustainable development, we conduct a carbon footprint report which provides a breakdown of our total greenhouse gas emissions related to our direct and indirect operational activities.

2.2 Directors of Our Path

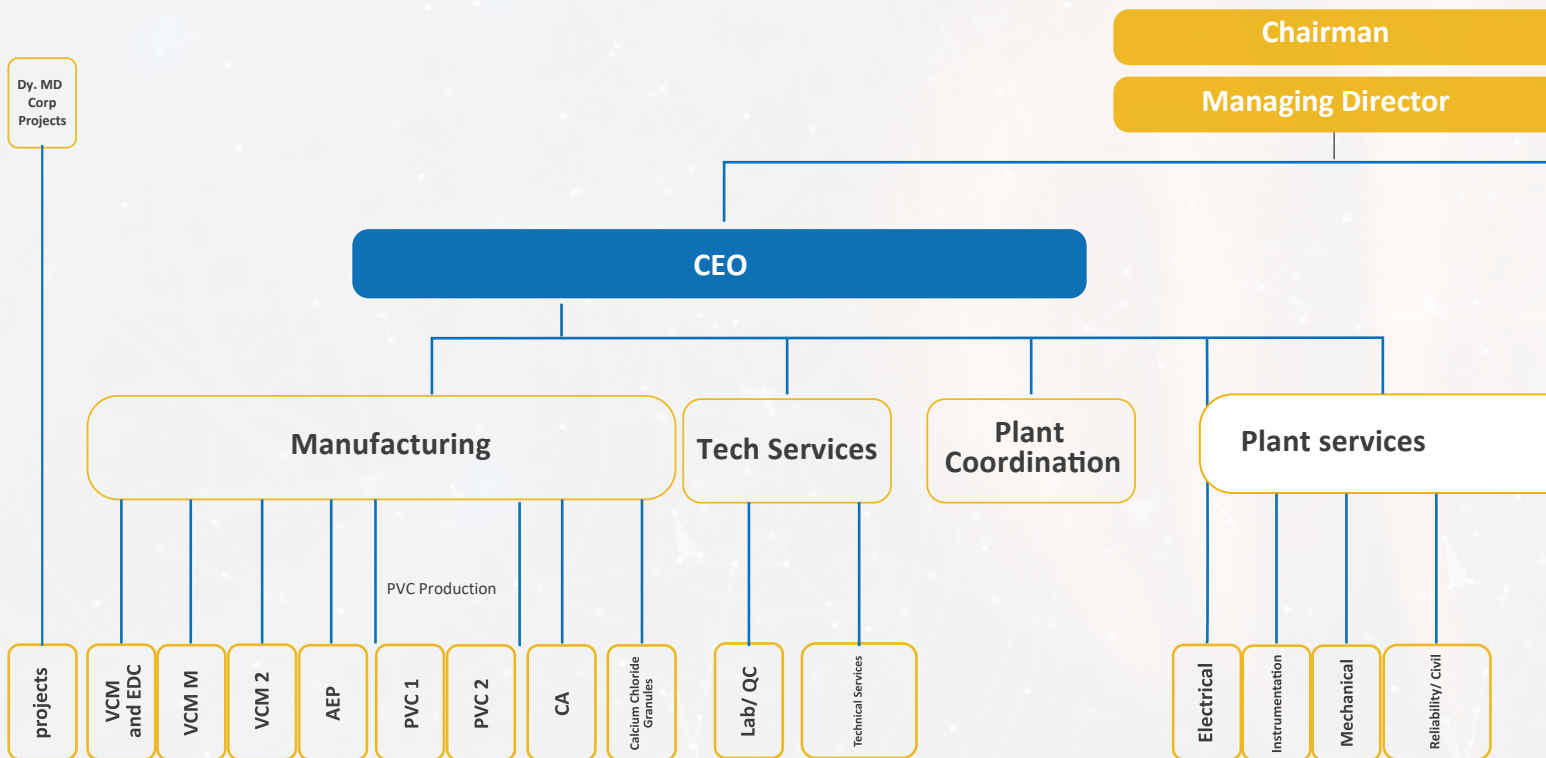
As the highest governing body, the Board of Directors has varying responsibilities aimed at monitoring and managing duties in fulfillment of the company's strategy. Specifically, it is responsible for creating and approving strategic directives, setting, and controlling risk management procedures, adopting main budgets and internal financial policies, developing policies to regulate stakeholder relations, protect stakeholder rights in alignment with official regulations, and disclose the company's performance to shareholders and investors.

In addition, the Board of Directors has a critical role in determining the company's mission and values. Similarly, the Board Committees are responsible for executing the company's strategy and participate in the formulation, approval, and updating of the company's purpose, values, and mission statement along with policies and goals. The Executive Committee and CSR Committee give rules for long-term operation and effective control and maintain the authority to set guidelines.

The administrative structure of the company consists of the Chairman of the Board of Directors, the highest administrative authority in the company, and nine directors representing different parties according to the following structure



TCI SANMAR - Organization Structure



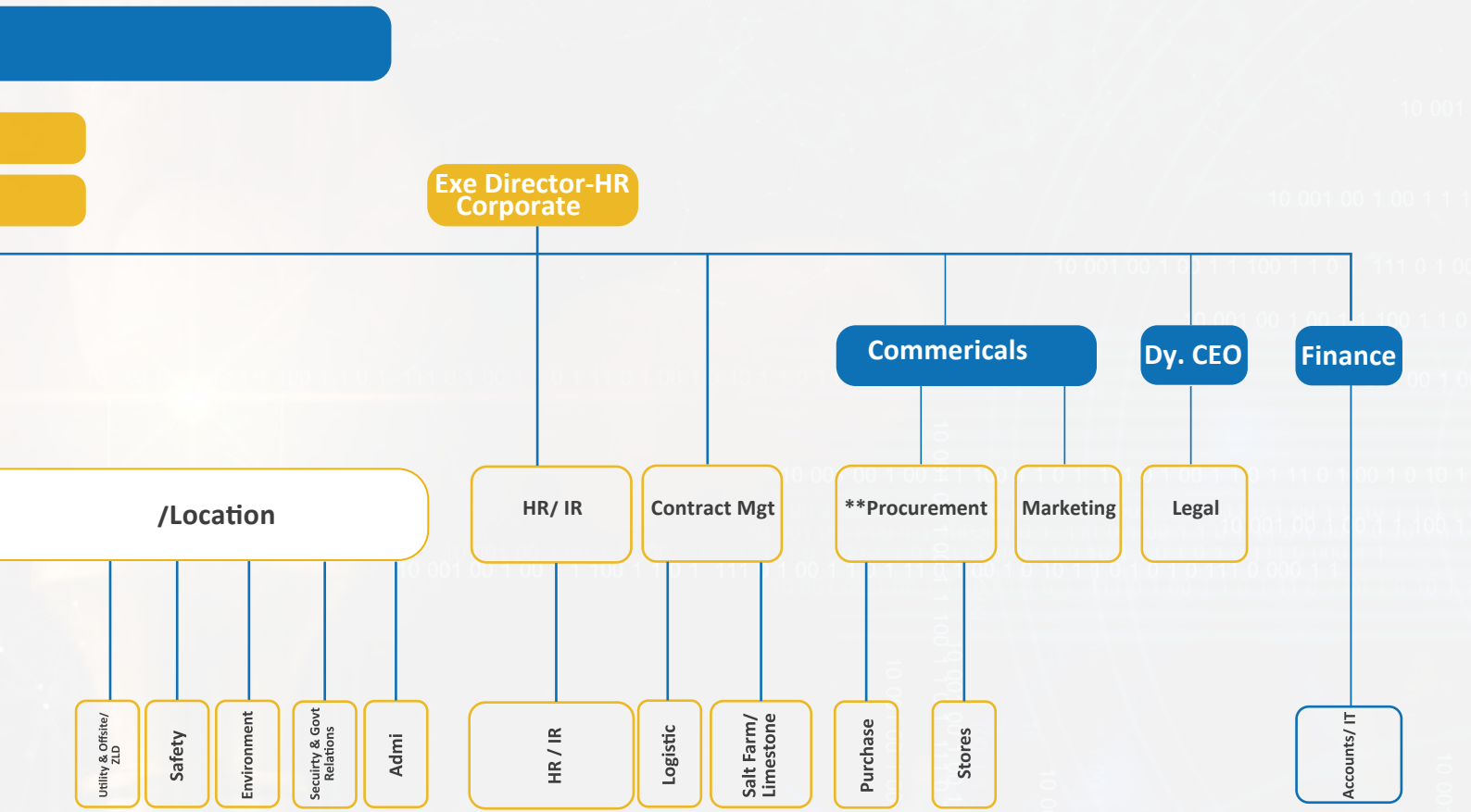


Figure 2 Administrative Structure of TCI Sanmar

2.3 Board Committees

Board committees represent an essential part of our corporate governance process and have clear reporting procedures and scope.

The board of directors appoints committees based on its objectives for the year, and these committees help review and advise on the achievement of those objectives. The committee structure is reviewed regularly to make sure there are no overlapping responsibilities.

There are standing committees, which operate on a more permanent basis, and ad-hoc committees, which are in place for a particular period and then disbanded once an objective has been achieved. Committee chairs provide leadership to the committee and help translate the board's goals into an agenda for committee meetings.

We have numerous committees such as Chemicals Committee, Health and Safety Committee, and Inventory Committee, among others that help the company achieve its short, medium, and long-term goals.

Name of Committee

Chemicals Committee

Environment Committee

Health and Safety Committee

Modifications Committee

Higher Committee on Training

Internal Audit Committee

Inventory Committee

Investment Committee

Human Resources Committee

Table 1 Our committees and their respective responsibilities

Frequency of meetings	Responsibilities
Monthly meeting	<ul style="list-style-type: none"> ▶ Review stock and needs of chemicals to ensure continuous chemical supply for operations.
Monthly meeting	<ul style="list-style-type: none"> ▶ Discussion of the status of the environmental profile for ongoing projects and future projects internally and externally.
Monthly meeting	<ul style="list-style-type: none"> ▶ Follow-up on health and safety status profile of all company employees and developmental plans. ▶ In case of emergency or risk, urgent meetings are held to ensure the quality of equipment and procedures for prompt action or decision-making.
Periodical Meetings	<ul style="list-style-type: none"> ▶ Follow-up on intended or planned change of any equipment or modification of the company's production process flow.
Periodical Meetings	<ul style="list-style-type: none"> ▶ Discuss training status for company employees and capacity building needs.
Periodical Meetings	<ul style="list-style-type: none"> ▶ Risk management and internal control, internal and external audits, and reporting and monitoring of Key Performance Indicators (KPIs).
Meeting monthly	<ul style="list-style-type: none"> ▶ Reviews the inventory of chemicals, machines, and equipment in the stores.
Annual meetings	<ul style="list-style-type: none"> ▶ Holds the main power over defining the corporation's investment objectives and corporate investing practices.
A permanent periodical meeting	<ul style="list-style-type: none"> ▶ Oversees developing and implementing value-based processes and policies to guarantee that the company complies with local and state regulations while also generating an appealing environment for existing and potential workers. ▶ The committee is also in charge of developing the general philosophy for managing human resources inside the firm as well as the intended corporate culture, as well as providing the appropriate governance to guarantee that these goals are met.



2.4 Sustainable Governance



Due to the nature of our operations, Health and Safety is a top priority. Hence, along with consistent communication is the continuous monitoring of our operations and activities to prudently reduce negative impacts and increase positive contribution. Safe working conditions are essential for the wellbeing of all employees to limit accidents and injuries. Another priority is environmental protection, therefore, to raise awareness on environmental sustainability we conduct employee training sessions regularly and follow up on practices, processes, and methods through internal and external management system audits

To achieve sustainability on all fronts we have a sustainability management system which enables us to review our plans, objectives, and processes while efficiently monitoring our sustainable activities to guarantee successful implementation and positive impact. Through our management system we ensure proper use of resources, protection of human rights, and positive operational impact. The implementation is carried out through our Health and Safety manager and relevant departments and reviewed at the departmental level. The results are deliberated at executive committees as well as CSR Committee meetings. The results of these activities are included in the risk control system, analyzed for urgency and relevance, and then implemented as per requirement.

We have started integrating sustainability criteria in the selection of our suppliers, contractors, and service providers. Our selection process now considers economic, sustainable, and ethical conditions. We diligently work along our supply chain to foster sustainable development and limit our negative impacts while growing our positive contributions.

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The Legal Department is critical in achieving our operational objectives and sustainability goals by preventing legal procedures, reducing legal costs, and raising awareness on the applicable laws and regulations amongst employees, occupational health and safety procedures, and environmental protection. In the case an issue arises, the Department is responsible for receiving complaints and claims against the company and seeking an amicable settlement in accordance with applicable laws and regulations.

It also represents the company in any disputes before judicial authorities, reconciliation and arbitration committees and centers.

2.5 Business Code of Conduct

In tandem with our corporate policies, TCI Sanmar abides by a Code of Conduct which guides the daily decisions of our management, employees, suppliers, and operations. We also extend our ethical requirements in our Suppliers' Code of Conduct to reinforce our compliance culture as it ensures TCI Sanmar suppliers operate ethically in accordance with our standards.

The code covers a wide range of issues, from our explicit support for human rights to our stringent anti-corruption procedures. It also aids in regulatory compliance and the avoidance of potential risks and liabilities. Our Legal Department guarantees that our operations, transactions, and decisions abide by relevant laws and regulations. Our compliance efforts result in minimizing the risks associated with losing legal cases, preserving our reputation and position.

At TCI Sanmar, we aim to establish a culture in which our employees, contractors, and suppliers have the ability to raise concerns without fear of reprisal. In turn, we have a whistle blowing mechanism which enables us to detect issues early and prevent serious harm or damage. Consistently our system has resulted in zero incidents of corruption, aiding us in maintaining our quality reputation and ethical standards.

Moreover, we have a Competition Compliance Policy and clarifying documentation that employees are obligated to sign annually to avoid corruption and ensure strong business ethics. To ensure sustainable progress, we implement policies and targets within each division and maintain consistent open dialogue regarding our sustainability achievements and progress.

Our HR Department provides support to ensure that our employees abide by our policies and code of conduct partially by conducting regular checks and inquiries based on the number of queries received about compliance topics, issues, and measures. We have a dedicated system on the intranet to further facilitate the process.



Stakeholders, Materiality, and Risk Management

At TCI Sanmar, we prioritize shareholder and employee interests. This originates from our understanding that their concerns and recommendations are critical to our growth. As a result, we have a straightforward process in which shareholders can provide feedback and recommendation, by sending a letter or email to the Corporate Relations Department to the address available on the company's website. In addition, they are able to voice their concerns during general meetings.

These recommendations are regularly reviewed, and actions are taken when required. Likewise, employees may submit requests or recommendations at any time to management or the appropriate bodies through their supervisors or managers. Moreover, our dedicated system on the intranet can be utilized by employees to report breaches of code of conduct and it provides employees with the opportunity to ask questions anonymously via an intranet portal. All questions are responded to by the relevant officers within an appropriate period.

3.1 Stakeholder Engagement

Our stakeholder engagement process serves as a mechanism for understanding and executing stakeholder interests. We have a transparent communication process that results in meaningful engagement and progressive results. Stakeholder interests include risks and opportunities and emerging trends.

- ▶ Shareholders
- ▶ Board of directors
- ▶ Employees
- ▶ Suppliers and Contractors
- ▶ Government Entities
- ▶ Clients and Customers
- ▶ Financial Institutions
- ▶ Industry affiliation
- ▶ Local Community, Academia, and NGOs
- ▶ Peers

TCI Sanmar identified its stakeholders based on its operations, activities, and relations in the national, sectoral, and local context. The following stakeholders were identified:

Based on the various channels of communications with our stakeholders, the following issues and expectation are addressed, and our response are illustrated in the following table:

Stakeholders	Communication Channel	Issues and Expectations	Response to expectations
Shareholders	Annual general meeting, information disclosures, annual reports.	Financial profitability & sustainable business growth.	TCI Sanmar management follows effective planning and budgeting, efficient management system, continuous performance monitoring, and maximizing resources utilization.
Board of Directors	Board meetings, various reports.	Financial efficiency, corporate governance, compliance with laws & regulations, risk management, safe and efficient operations, and sustainable business growth.	Effective planning and budgeting, efficient management system, performance monitoring, and reporting system, solutions to reduce costs, maximizing resources utilization.
Employees	Direct meetings, HR surveys, employees' conferences, special purpose meetings or interviews, direct phone calls.	Safe working environment, attractive benefits package, career path development, training and development, recognition and reward, employee, and family well-being. Transparency and effective strategy and policies communication.	New health plans, updating HR policy, training and career development programs, key-positions retention plan. Internal and abroad training programs. Human Resources data analysis system.

Stakeholders	Communication Channel	Issues and Expectations	Response to expectations
Clients & Customers	Daily operational contacts, scheduled meetings, regular operating reports, direct phone calls, emails.	Company profile, operating costs, quality of products, availability, and quality of products.	Apply international standards in management and operations. Preventive maintenance plans to ensure continuous production, improving operation and sustain the quality of products, 24/7 follow-up, and monitoring system.
Suppliers and Contractors	Public tenders, regular contacts, Contractors registration and inspection process, mails, phone calls, direct meetings.	Transparency in bidding evaluation process, input prices, operation efficiency and profession, times required to provide service, long term relationship, on-time deliveries, on-time payment, compliance to rules and regulations, compliance with safety procedure, commitment to the environment, human rights.	Developing supplier's manual and code of ethics, tendering process that assures transparency and fairness, clear payment policy, professional and resolute employees, strict policy toward human and labor rights.
Financial Institutions	Regular meetings, financial reports, annual audit reports, feasibility studies.	Transparency of management system, professional monetary management system, long-term planning, liquidity, risk management. Exchange rate, interest rate, overdraft facility availability of foreign exchange.	Effective monetary management policy, diversification of sources of funds, compliance with bank rules, medium- and long-term plans, monitoring financial performance and liquidity.
Peers	Market research surveys, participation in biddings, direct contact through meetings, emails, and phone calls.	Responsible competition, fairness, and equal opportunities, transparency.	Transparent disclosure to boost the brand name, responsible competition principles. Cooperation and support when needed.
Regulators and Relevant Governmental Entities	Reports to/from gov. Agencies, direct meetings, inspections, auditors' reports, focal points.	Compliance with laws and regulations, certifications, licenses, contribution to national priorities, support community development.	Direct environmental monitoring from the MOE. The laws and regulations compliance, third-party quality inspections and certification (ISO 9001-14001, 45001, accountability state authority)

3.2 Material Topics

We identify, evaluate, and manage our material topics to aid in realizing business opportunities and mitigating risks. Material topics have a profound impact on our business, as a result we actively assess their progress to drive sustainable growth.

We address these priority topics by integrating them within our policies, strategies, and actions. Business Growth and Sustainability, Product Quality, Water Management, Supply Chain Sustainability, Occupational Health and Safety, Technology, Product and Process Innovation, Energy Efficiency, Environmental advocacy and Climate Change, Waste Management, Beyond Compliance, Circular Economy Learning and Development, Talent Retention, and Local Community



“ Materiality Matrix



3.3 Risks and Opportunities

We carefully work to identify our risks and opportunities to reduce undesirable outcomes and emerging threats while pursuing opportunities. We recognize that risks can impair our operations, so we prudently identify and analyze risks and set out appropriate control measures. Alternately, we seize every opportunity available to create a competitive advantage in the market. We have a fundamental obligation to our stakeholders to ensure business continuity, so our risk identification process aids us in conducting an accurate materiality assessment and stakeholder engagement. Moreover, we implement a precautionary approach through our introduction of several initiatives to ensure efficient operations. Throughout the risk assessment process, TCI Sanmar categorized their identified risks as follows:

Risk	Definition
Strategic Risks	All geopolitical and economic risks that impact corporate strategy setting and hence its growth and development path.
Laws & Regulations	TCI Sanmar abides by all applicable laws and regulations.
Financial Risks	Budgeting and cash flow management, changes in the currency rate.
Products Prices Risk	Future products prices of inputs, final products.
Operational Risk	Shortage in raw materials (N.G, Raw water, etc.) and in the chemicals or catalyst used in production, outside Grid (Electricity Network) failure, and human errors.
Market Supply and Demand	The demand for petrochemicals is expected to increase, as a result, the raw materials used in this industry need to be available. This availability will have a strong consequential effect on establishing the sector's position internationally and developing & supporting several other sectors.
Exchange Rate	The volatility of domestic currency to foreign currencies.
Cyber Security and Technological Disruptions	Cyber-attacks are considered substantial risk for the industry as it relates directly in operations and production on the follow-up and monitoring systems of the Plants. Servers and networks infected with a deadly virus could cause complete shut-down or worse causing hazardous malfunction.
Water Scarcity	The world and Egypt have the challenge to access freshwater.
Asset Integrity	Equipment depletion/deterioration.
Supply Chain Risk	Troubles in the availability of spare parts, packaging, and other related materials.
HR Risks	Availability of high calibers, and the ability to retain them.
Research and Development	Coping with state-of-the-art technologies in production, and production of ecologically friendly products considering the challenges facing the agriculture sector worldwide of increasing population.

TCI Generated Opportunities in 2022

Completion of VAT assessments and received credit for VAT paid on project imports

During the year 2021-22, we completed the VAT assessments up to March 2017. Refund of VAT paid on project imports amounting to EGP 137 million was received. This was one of its kind as generally excess VAT paid is adjusted with future VAT obligations. This refund further strengthened the liquidity position of the company.

Reduction of duty on import of Ethanol from 10% to 0%.

In June 2022, customs duty on Ethanol was reduced to 0% from 10%. We had represented to the government that denatured ethanol being imported by the company is used in the manufacture of PVC and in effect substitutes the import of Ethylene Dichloride which is exempt from customs duty. This has further supported our quest to use Bio-Ethanol to produce green-attributed PVC. Reduction of duty has also helped improve our margins and cash flow.

Getting Anti-Dumping Duty levied on PVC imports from the USA into the country.

In December 2021 the government imposed Anti-Dumping Duty of 9% (subject to a minimum of USD 86 PMT) on import of PVC from the USA. This has helped curb the dumping of PVC from USA and helped the domestic PVC manufacturers including TCI Sanmar. This has also ensured that the value added by manufacture of PVC through import of EDC is retained in the country and has saved precious foreign currency for the country.

Government granting export incentives to our products

Our products viz Caustic Soda, PVC and Calcium Chloride are eligible for export incentives from July 2021. The government had included these products to incentivize exports and earn foreign exchange for the country. The Company received EGP 403 million (net of costs and early payment charges) in October'22 as first tranche of export incentive for the period July'21- June'22.

The following reasons for the Government granting export incentives to our products PVC, Caustic Soda and Calcium Chloride were made eligible for export incentives since July 2021 because of the following reasons:

- ▶ All our products add significant value using natural resources available in Egypt like Natural Gas, Salt, and Limestone.
- ▶ They cater to the needs of a large underserved market in Europe, Turkey, and Africa wherein Egypt is strategically positioned logistically and in terms of Free Trade Agreements it has with these Countries. These factors enable exports of these products in large quantities resulting in earning of valuable foreign currency for the Country.
- ▶ The growth in manufacturing capacity of these products taking advantage of the export incentives will create new employment opportunities in Egypt.
- ▶ Chlorine which is a co-product produced along with Caustic Soda is essential for water purification, water treatment and water desalination plants in Egypt and the need for water recycling is increasing in view of the increase in population of the Country and the likely reduction in the availability of fresh water from the river Nile in the future.

3.4

Reporting Risks and Opportunities

After assessing potential risks and opportunities and environmental and social impacts, they are analyzed for their ability to hinder or progress our business and shared with the different committees and management through a network system constructed by our IT Department. Committees use the risk management system to record, analyze and present all relevant risks for consideration and action.

Similarly, HSE-related risks are communicated through the HSE Department while other risks are reported separately through our Risk Management System. The Audit Committee reviews serious issues regarding the status of compliance with laws and regulations, and our code of conduct.

The Internal Audit Department reports to the Audit Committee regarding the status of compliance with laws, but also regarding code of conduct violations, investigation process, results, and measures taken to avoid repetition. Based on the inputs of different Board Committees, the Board of Directors formally reviews and discusses organizational impacts, risks, and opportunities in its quarterly meetings.

3.5

Our Corporate Performance Evaluation

The Human Resources Department and Committee of the Board of Directors annually evaluate the progress of our mission and objectives. Once the performance has been evaluated recommendations are made for approval from the Board of Directors. This ensures cooperation between our objectives and bonus payments made to employees and executives. Our Board of Directors and Executive Committee are skilled in the areas of managing economic, environmental, and social issues.

To make certain that the company and its employees are aligned with the latest trends and directions of sustainability, they participate in the necessary training and engage in international and national conferences and meetings to enrich their knowledge and increase productivity.



3.6 Strengthening National Cooperation

In light of Egypt witnessing an outstanding economic growth, TCI Sanmar has exerted an effort to strengthen the cooperation with governmental bodies to help further expand our business scale in various ways. Accordingly, we witnessed three phenomenal meetings.

On the local level, the board of TCI Sanmar assembled to meet with the governor of Port Said, Major General Adel Al-Ghadban, on June 24 2022. The purpose of the meeting is to discuss the framework of continuous communication to enhance cooperation between the governorate and industrial companies in support of the development plan in Port Said Industrial City. The meeting involved P S Jayaraman, the chairman of TCI Sanmar, representatives from 9 different banks, and other relevant investors.



Image 1 P S Jayaraman with the Governor of Port Said

On the governmental level, on July 26 2022, Egyptian-Indian Business Council Forum took place during which engineer Ibrahim El-Araby, President of the General Federation of Egyptian Chambers of Commerce and President of the Federation of African Chambers, affirmed that the longevity and strength of the relations between Egypt and India at all levels, whether political or economic, is the main support to achieve communication and success, and is the main engine to support bilateral relations between the two countries.

About 450 Indian companies operate in the Egyptian markets, with a total value of investments amounting to about 3 billion dollars.

The forum was attended by P S Jayaraman who stressed the importance of increasing economic and trade cooperation with Egypt, as it is an important gateway for Indian products to reach African countries through Egypt, employing bilateral cooperation in joint manufacturing between Egypt and India.

He added that India is working on drawing up a road-map to increase trade growth with Egypt and other African countries and sustained co-operation is the only way forward.



Image 2 P S Jayaraman addressing the Fifth meeting of the India-Egypt Business Council

P S Jayaraman, Chairman and his team from TCI Sanmar met with H.E. Dr. Ali Al-Moselhi, Minister of Supply and Internal Trade, Egypt on 24th March, 2022 and explained various project initiatives undertaken by the company and also sought support for dropping the duty structure for import of Ethanol from 10% to 0%. The Government of Egypt has reduced the customs duty on import of Ethanol to 0% from 10% effective June 2022.

The company also discussed improved supply of domestic Ethanol. The Minister appreciated the company's initiatives.



Image 3 (L to R) V Sunder, S Ganeshkumar, PS Jayaraman, Dr. Ali Al-Moselhi, Minister of Supply and Internal Trade, Egypt



Image 5 (L to R) Ahmed Kouchouk, Vice Minister of Finance, Egypt, PS Jayaraman, TCI Sanmar, Dr Mohamed Maait, Finance Minister, Egypt, Vijay Sankar, Deputy Chairman of the Sanmar Group, V Sunder, Deputy CEO, TCI Sanmar



Vijay Sankar, Deputy Chairman, The Sanmar Group and P S Jayaraman, Chairman, TCI Sanmar Chemicals met with H.E. Mr Mohamed Maait, Minister for Finance, Egypt on 21st November, 2021 and discussed several of the issues including refund of Value Added Tax (VAT) VAT assessments, etc.

The Minister assured his support. The VAT refund has since been resolved.

On national level, Prime Minister Mostafa Madbouly met with PS Jayaraman, Chairman of TCI Sanmar Chemical Company, Vijay Sankar, Deputy Chairman of the Board of Directors of the company, a delegation from Sanmar Company, and Tarek El Molla, Minister of Petroleum and Mineral Resources to review expansion plans of Indian chemicals companies in Egypt. PM Madbouly has urged officials of TCI Sanmar to speed future investment projects that the company intends to implement in Egypt during the coming period.

He also stressed the company's desire to increase its production of PVC by at least three times, in light of the growth in global demand for this material, noting also the company's aspiration to increase its market share in the local market of this material, which plays a pivotal role in infrastructure projects implemented by the state.

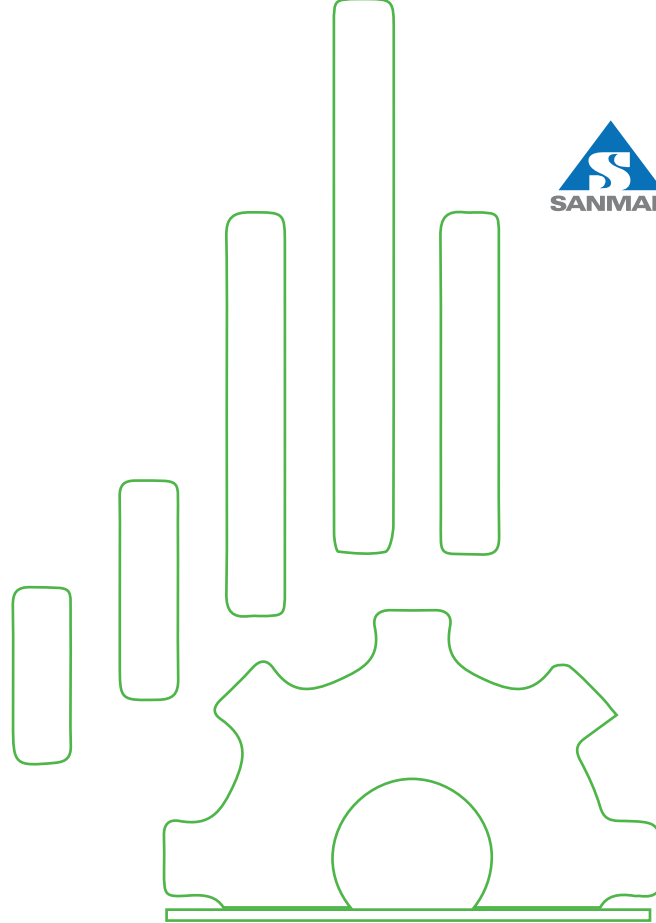


Image 4 Vijay Sankar and P S Jayaraman meeting with the Prime Minister of Egypt.

Green Production

Green Production





The global expansion of the middle class resulted from rising living standards and expanding access to energy. This will increase demand for housing, transportation, electricity, consumer goods, and the energy to power them all. The issue is to meet this increasing demand while lowering the risks of climate change.

The chemical industry has been essential to the production and modern living, but it has also contributed significantly to environmental degradation and pollution. The utilization of renewable fuel sources, the development of safer chemicals, and energy-efficient design have become increasingly important components of sustainable chemical manufacturing strategy. These three ideas are also among the 12 green chemistry principles first presented in 1998. It may be crucial for several reasons to monitor the adoption of green chemistry in a certain industrial sector.

First, it gives businesses a chance to benchmark and identifies best practices. Second, it is crucial to spot gaps or areas where a slight improvement could make a big difference. Thirdly, it might be used to pinpoint areas that require additional study in order to encourage innovation and wider implementation. Fourth, it might give governments relevant data to support tax reforms or other measures that encourage the use of more environmentally friendly technology.

TCI Sanmar, a multinational petrochemical industry, is in the forefront adapting to green, sustainable production within its operations. It has tapped into the unconventional, sustainable way to produce the fossil fuel-dependent PVC, becoming the first country in the MENA and African region to do so. It also became the first petrochemical industry in the MENA and African region to issue an environmental product declaration for PVC. TCI Sanmar is only beginning its path towards green production, with many goals and strategies that will be discussed in upcoming sections.

4.1 TCI Sanmar Environmental Policy

At TCI Sanmar, we are committed as part of our integrated policy to achieving the environmental, economic, ecological and social responsibility objectives of sustainable development to sustain economic growth without harming our planet or exhausting its resources while improving the quality of life of its current and future inhabitants. Accordingly, we structured an environmental policy to help us abide by our commitments:

1 Complying with all applicable legal and other requirements

2 Reducing the impact of company's operations on the environment and sustaining it by:

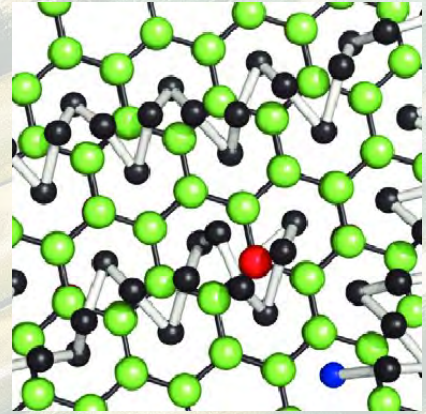
- ▶ Minimizing the use of natural resources to the lowest extent possible.
- ▶ Preventing harmful releases and emissions to the atmosphere, land or water.
- ▶ Working continuously towards reducing the amount and toxicity of generated waste.
- ▶ Ensuring reduction of waste generated through process optimization, recovery, reuse, recycle and safe disposal after treatment.

3 Regularly monitoring, measuring and evaluating the Environmental, Occupational Health, and Safety performance.

4.2 Producing Green Ethylene & Green PVC through Green Energy

PVC, a prominent polymer in the plastic industry is known to be made from chemicals sourced from fossil fuels, and the fossil fuel and plastic industries are deeply connected. Breaking from this traditional, conventional production, TCI Sanmar has tapped into ways to produce its plastic from natural origin salt and sugarcane molasses.

PVC is produced from fossil-fuel based ethylene and the chemical, chlorine. In conventional production processes, chlorine is produced from electrolysis of brine while ethylene is produced from steam cracking, a process which breaks down hydrocarbons through the refining of petroleum or natural gas.



However, TCI Sanmar produces ethylene from renewable feedstock of bioethanol that is a product of the fermentation of sugarcane sourced produced by Egyptian Sugar Integrated Industries Company (ESIIC).

The company uses around 120,000-ton bio-ethanol/year to produce 60,000-ton green PVC/ year with CO₂ reductions of 72,000 ton/year. The green PVC resins are identical to traditional PVC grades performance. By adopting such concept of turning waste into valuable products, TCI Sanmar support other supply chains to be greener and align with circular economy principles.

TCI Sanmar became the first plant to produce Ethylene from Ethanol in the Middle East North Africa (MENA) region and the second plant in the world. Moreover, the company plan to invest around 40 million USD for expanding their green PVC production through a new production line of Alco Ethylene Plant (AEP)

4.3 Publishing the first EPD for PVC in the Middle East

In 2022, TCI Sanmar kickstarted the year by issuing its very first Environmental Product Declaration (EPD) for its PVC product, according to EN 15804+A2 and ISO 14025 standards. This means that it has disclosed an independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of PVC in a credible way.

From raw material extraction all the way to transportation to market site, the environmental impacts were assessed and translated to what are called environmental impact indicators. The following demonstrates the environmental impact of the production of 1 ton of PVC Resins.

ENVIRONMENTAL IMPACT DATA
Declared unit: 1 ton of PVC Resins
Boundaries: Cradle to Gate (A1-A3)
Global Warming Potential – Total (kg CO ₂ e): 1,910
Global Warming Potential – Biogenic (kg CO ₂ e): -283
Acidification Potential – (mol H ⁺ e) – 13.5
Total use of nonrenewable primary energy (MJ) – 39,000
Use of net fresh water – (m ³) – 53.7
Hazardous Waste – (kg) – 120



The issuance of EPD for PVC resin means:

We have access to the European market where there is legislation regarding embodied carbon

Life-cycle carbon limits for new buildings will soon be mandatory in a number of countries, including France, under the new RE 2020 law, Sweden, when the Klimatdeklaration comes into force, Finland as part of its low-carbon construction roadmap, and the UK under the new London Plan.

We support the accreditation for green building certifications and schemes for the local building market

Around 70 % of international and European green building standards offer credits for the use of construction materials covered by an EPD. So, whether your clients need to gain accreditation for LEED, BREEAM, DGNB, the Living Building Challenge, or many others, they will prioritize products with EPDs.

We can have meaningful comparison of the environmental performance of our product

Comparing the environmental performance of your products and services to industry bests and conducting best practices enables you to see how you perform against your peers and prepare you to meet growing market demands for product sustainability.

We can prepare our PVC product for a carbon-focused market

On the road to COP27 and the upcoming regulations that would be enforced regarding the carbon emissions, EPD is the one that focuses on climate impact information such as the carbon footprint of a product in terms of Global Warming Potential (GWP) as measurable carbon dioxide equivalents (CO₂ eq.).

Therefore, we are aware of the carbon lifecycle of PVC and will work to mitigate it through the identified hotspots throughout LCA.



TCI SANMAR CHEMICALS S.A.E
PVC SUSPENSION RESIN

ENVIRONMENTAL PRODUCT DECLARATION



Programme: The International EPD® System, www.epd.org/epd
 Programme operator: EPD International AB
 EPD registration number: S-P-05699
 Publication date: 2022-05-03
 Valid until: 2027-05-03
 Geographical scope: World



4.4 Innovation for Green Products

Green product innovation (GPI) reflects the development of new or improved products by the usage of environmentally healthier materials and the removal of hazardous substances to reduce environmental pollution and energy consumption. It helps firms attract new customers and maintain current customers by exploiting green market opportunities, thus responding to environmental pressure.

Producing innovative green products reduces the wastage of materials and energy in production processes. It focuses on the usage and reuse of environmentally friendly materials that have a longer lifespan overall.

Green product innovation is a multi-faceted process wherein three key types of environmental focus – material, energy, and pollution – are highlighted based on their major impact on the environment at different stages of the product's physical life cycle – manufacturing process, product use, and disposal.



Regarding the material use focus, the internal recycling is supported to reduce the raw material usage. For example, the Calcium Chloride plant operation consumes the Hydrochloric acid generated in the VCM Plants thereby reducing the need for neutralization using Limestone that resulted in controlling the effluent generation.

- ▶ The next step for TCI Sanmar in the material-use focus will be switching the jumbo polypropylene packaging bags of PVC resin to a more environmentally friendly packaging.



Regarding the energy efficiency focus, the current actions include reducing the energy intensity per kg of PVC produced. In addition, the Lifecycle Assessment of PVC production has been made to identify the energy intensive processes. Also, implementing heat recovery system that saves about 4.3 million m³ of natural gas.

- ▶ The next step for TCI Sanmar in the energy efficiency focus will be adopting the steam microturbines technology with a total capacity of up to 2.61 MWh as well as the installation of a 4 MWh solar PV system at the rooftop of the plant to reduce on-site electricity.



Regarding the pollution prevention focus, the current actions include adopting the zero-liquid discharge technology and redirecting the wastewater from drainage system.

- ▶ Moreover, the next step for TCI Sanmar in the pollution prevention focus will be installing an ambient air monitoring station in coordination with the Ministry of Environment

4.5 Production Agility

In a constantly evolving market with competitive pressures and business turbulence, being an agile producer is the next level of business resiliency. At TCI Sanmar, we are proud of our ability to adapt to change based on market dynamics to maintain continuous business operations while safeguarding people, customers, and data. As an agile manufacturer, we are an organization with a broad vision on the new order of the business world, and with a handful of capabilities and abilities to deal with turbulence and capture the advantageous side of the business.

Our agility comes from using market knowledge and virtual corporations to exploit profitable opportunities in a volatile marketplace. However, TCI Sanmar is aiming to develop a production agility strategy wherein we underpin four principles that we hope to integrate into a coordinated, interdependent system, and to translate them into strategic competitive capabilities. Such capabilities consist of four principal elements:

Responsiveness	Competency	Flexibility/adaptability	Excellence
Responsiveness, which is the ability to identify changes and proactively recover from them.	Competency which is the ability to efficiently and effectively reach enterprises' aims and goals.	Flexibility/adaptability which is the ability to process different processes and achieve different goals with the same facilities.	Quickness/speed which is the ability to carry out activities in the shortest possible time.

In order to fulfil these capabilities while using the conceptual framework of agile manufacturing, we highlighted the ways in which each department can increase their agility.



Table 4 Ways to improve our production agility

Function in Manufacturing

Design and production

Objectives to increase agility

Rapidly producing variety of goods and services to customer order in arbitrary order quantities, a methodology that integrates supplier relations, production processes, business processes, customer relations, and the product’s use and eventual disposal

Marketing

Objectives to increase agility

Enabling customer focus concept to meet the customer needs and even exceed their expectations by offering product of services in the shortest possible time in a reasonable price range.

Organization

Objectives to increase agility

Encourage teamwork and integration of plant managers in a physically distributed manufacturing environment within a short period. This can be made through the establishment of a formal information sharing program, which is frequently updated and based upon competitive performance, and empowerment through mastery over skills and self-decision to carry out activity.

Employees/People

Objectives to increase agility

Continuously training and educating our employees to use the most advanced real-time communication systems to share information effectively and efficiently which further enables a manufacturing firm to efficiently respond to the needs of the market.

Supply Chain

Objectives to increase agility

Improvement of our relations with suppliers as they have an active role to play in production agility. TCI Sanmar can work on implement training program for tier 1 and tier 2 suppliers to improve the coordination levels, information sharing and accountability for when there are product recall incidents.

4.6 TCI Sanmar Initiatives to Reduce Carbon Footprint by 2026.

Despite the roadmap undergoing development, it did not impede our progress on setting up initiatives to achieve our carbon footprint target by 2026.

Bio-ethylene production from CO₂

Taking advantage of the development of new promising emissions capture technologies, the company will utilize the CO₂ released from the Combined Cycle Power Plant to produce Bio-Ethylene. This emerging, exclusive technology would reduce our dependency on importing fossil fuel-based ethylene dichloride while reducing our carbon footprint.

This technology is based on a photosynthetic bacterium that is genetically specialized to turn sunlight and carbon dioxide (CO₂) into ethylene. This technology is currently undergoing development but we look to adopt it when it is available.

Photovoltaic (PV) Cells Installation

This initiative aims to utilize our spacious rooftops to install a 4 MWh PV system so we can reduce our consumption from the national grid and our carbon footprint. The project would start off by installing 1 MWh solar panels and gradually ramping up towards 4 MWh by 2023.

Installation of Five Micro-turbines

The process plants at TCI Sanmar have a huge steam network operating at different levels of steam pressures. To enable operating at different levels of steam pressures, there are several pressure reducing stations (PRDS) which reduce the steam pressure to the required level from the main boiler steam header. Of all the PRDS that are present at TCI Sanmar, 5 have been selected and found to be economical for installation of micro turbines to reuse steam produced to generate electric power.



Installation of Five Micro-turbines

The new power plant will generate CO₂ emissions based on the use of 100% Natural Gas. The emission factor for such a facility is 0.460 kg CO₂/kWh (electrical energy output 55 kWh/100 kWh fuel). Before implementation of the power plant, TCI Sanmar operations consumed electricity from the Egyptian grid, with has an emission factor of 0.533 kg CO₂/kWh (based on a fuel mix of Natural gas, fuel oil, Wind power etc.).

Furthermore, the transmission and distribution losses of the Egyptian National grid are in the order of 4-5 % at 220 KV transmission. With the implementation of 130 MW from CCPP, the electricity produced will be directly headed to TCI Sanmar reducing the transmission and distribution losses, thereby improving the carbon footprint.

Implementation of Zero Gap Technology in Electrolyzes of Caustic Plant

Caustic soda is manufactured by electrolysis process where a direct current of opposite potentials is passed through electrodes. Two electrodes are separated by a fine membrane through which the ion transfer takes place. The current consumption for electrolysis process increases with increase in the gap between the electrodes.

TCI Sanmar has 11 electrolyzers (4 are in X series, 4 are in Y series and 3 are in Z series), out of which only Z-series has zero gap technology orientation. In zero gap technology, both the anode and cathode surfaces are in contact with the membrane, i.e., electrode gap equals to membrane thickness. Achieving uniform current distribution, the original anode and cathode mesh are not fully flat; this is creating some non-uniformity in the current distribution. So, power consumption for producing one ton of Caustic Soda is 2,330 kWh and power consumption for other finite gap membrane electrolyzers (X&Y-series) is 2,460 kWh. So, replacing X&Y series electrolyzers with zero gap membranes will have saving potential of 130 kWh/Metric Tons of Caustic Soda production.

As Phase-1 implementation, Electrolyzers - G&H of Y series will be converted to Zero Gap membranes.

Our Journey to Sustainability

As this is our fourth sustainability report, we are proud that each year our practices and organization are transforming from a conventional, linear one to a sustainable, prosperous one. We implement the concept of sustainability in all aspects of our business, starting from production within our gates to beyond our supply and value chain.

5.1 Business Improvement Activities for Sustainable Production

TCI Sanmar has been through numerous development stages to improve our business performance and enhance our operational efficiency.

5.1.1 Assess our Situation

Before we started making changes, we made sure that we have a full understanding of the factors affecting our business success. These include our current business practices, market trends, or changes to the wider environment in which we operate.

the tools that helped us assess **our business's situation include**



Benchmarking
– measures our business's performance against similar-sized businesses in our industry.

SWOT analysis – helps us identify our business's strengths, weaknesses, opportunities, and threats.

Market research – investigates our business's market and industry to identify trends, changes, and customer or client demands.

Trend analysis – uses business data collected over time to identify consistent results or trends.

Webinars (web-based seminars) – provide useful information to help develop your business skills.

5.1.2 Set Clear Goals

After assessing our current position, we proceed by identifying our goals to make it easier for us to achieve them. We ensure that goals are:

Specific – by stating clearly what we want to achieve.

Measurable – to ensure that we can evaluate our success.

Achievable – checking our objective is something we have the time and resources to meet.

Relevant – ensuring our objectives improve profit drivers and improve some part of our business.

Timely – set a specific date for completion.

Once our goals are identified, we prioritize them in preparation for implementation. Some goals may be more urgent than others. We recognize that some goals will need to be addressed with a long-term strategy due to constraints of resources, finances, or time.

5.1.3 Identify Strategies for Achieving Goals

After setting clear goals, we review them and list the factors creating our current circumstances and develop a strategy accordingly.

Depending on our goals, we may use the services of a business professional, such as a professional trainer, contractor, or business adviser.

Developing a plan for implementing our strategies



To achieve our goals, we set;

- ▶ **A time frame** – how long a task will take to complete as well as start and finish dates.
- ▶ **Actions** – stating the individual actions precisely.
- ▶ **Responsibilities** – assign accountability for each action so everyone knows precisely what is expected of them and who is responsible for ensuring the work is done.
- ▶ **Resources** – list budget, staff, or supplies needed to complete each action.
- ▶ **The desired outcome** – stating how we will know that the action has been completed.



5.1.4 Measure the Results

We measure the results we want to achieve by checking our completed activities. With larger goals, we establish a more complex measurement process, like increasing profit by a set percentage, or gaining a particular number of new clients. With these types of goals, we also set points to measure their success. This helps keep our plan on track.

Measuring results also helps set new goals regularly.

5.2 Sustainable Production

Within TCI Sanmar, we ensure that our day-to-day operations are sustainable. From waste management to energy conservation, we look forward to abandoning our traditional, untenable ways to sustainable, resource-conservative ones. TCI Sanmar is committed to minimizing its environmental footprint on the planet. To create the most impact, we drive positive change in four areas across our value chain – Energy, Water, Effluent, and Resources. We commit to goals that we strive to achieve, develop assessment and monitoring frameworks to ensure accountability, and continually review and fine-tune our actions to create an environmentally sustainable world. This year we have spent 1,933,475 USD over environmental studies, impact assessments and technicalities to help us realize our impact and act accordingly to ensure we are compliant with the national regulation system in Egypt. Accordingly, we have not received any penalties due to environmental laws and regulations.

5.2.1 Improving our Waste Management

At TCI Sanmar, we follow a strict waste management system for Hazardous and Non-Hazardous solid waste. The waste management procedures for each type of waste are well documented. In the case of hazardous waste, there is a work instruction sheet on how to handle it safely, so neither poses a threat to our employees nor the environment. Hazardous waste generated from the operations is segregated and transferred to an intermediate storage facility in the plant before it's safely and legally disposed of through an authorized third party, according to EEAA guidelines. Moreover, at TCI Sanmar, we operate a state-of-the-art liquid and gaseous organic waste heat recovery system as part of its sustainable development policy for energy conservation.



5.2.2 Reducing Energy Consumption

We recognize that our electricity consumption can be a significant contributor to the impact on the environment. As such, we ensure that all energy usage is carried out in the most environmentally friendly and cost-effective manner. We have installed heat recovery systems that save about 4.3 million m³ of natural gas. We have planned upcoming green power initiatives, such as installing photovoltaic cells to transition towards renewable energy and reusing the high steam pressures produced by our boilers to generate electricity.



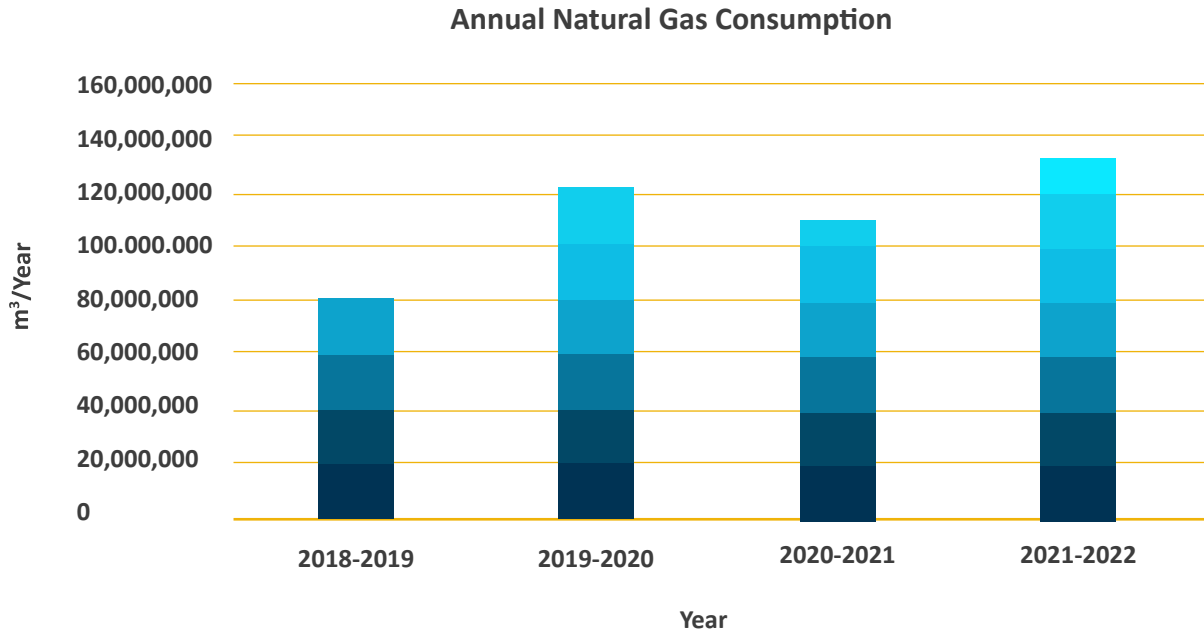


Figure 4 Annual Natural Gas Consumption

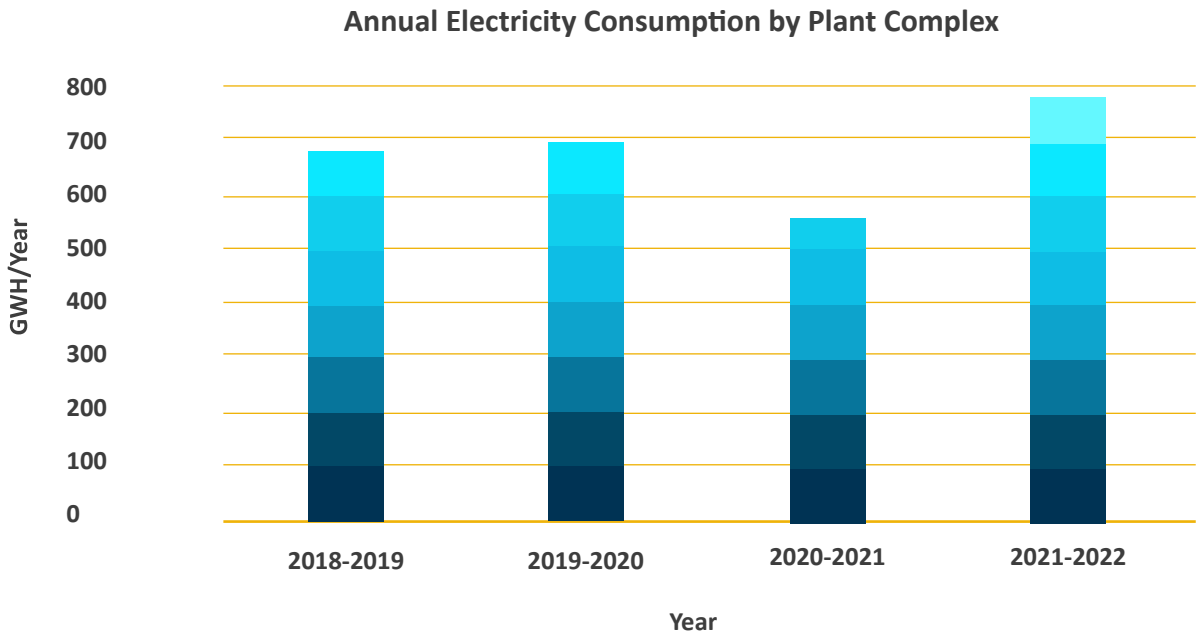


Figure 5 Annual Electricity Consumption by Plant Complex

Although the air emissions of SO_x and NO_x have increased in the last year as clarified below, this is due to the required increase in energy consumption for more production. However, the particulate matter has significantly decreased.

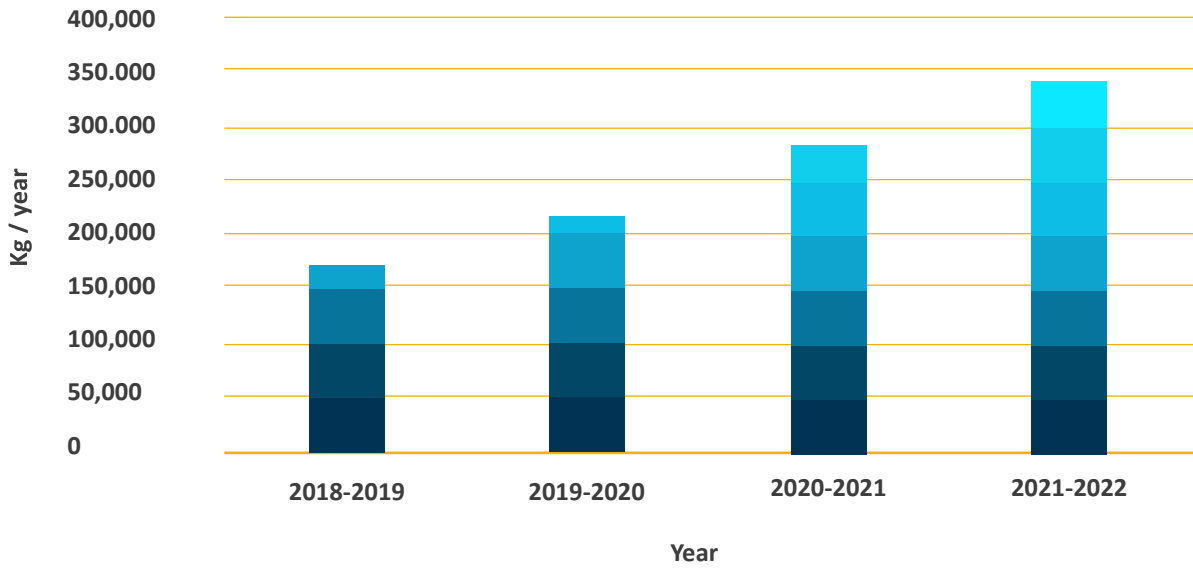


Figure 6 Comparison of NO_x emission loads

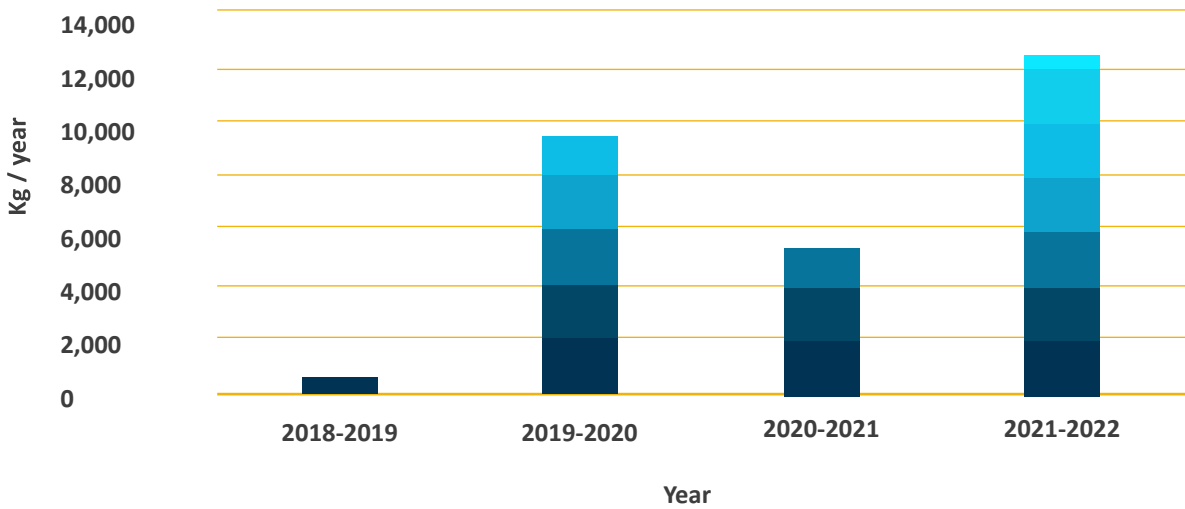


Figure 7 Comparison of SO_x emission loads

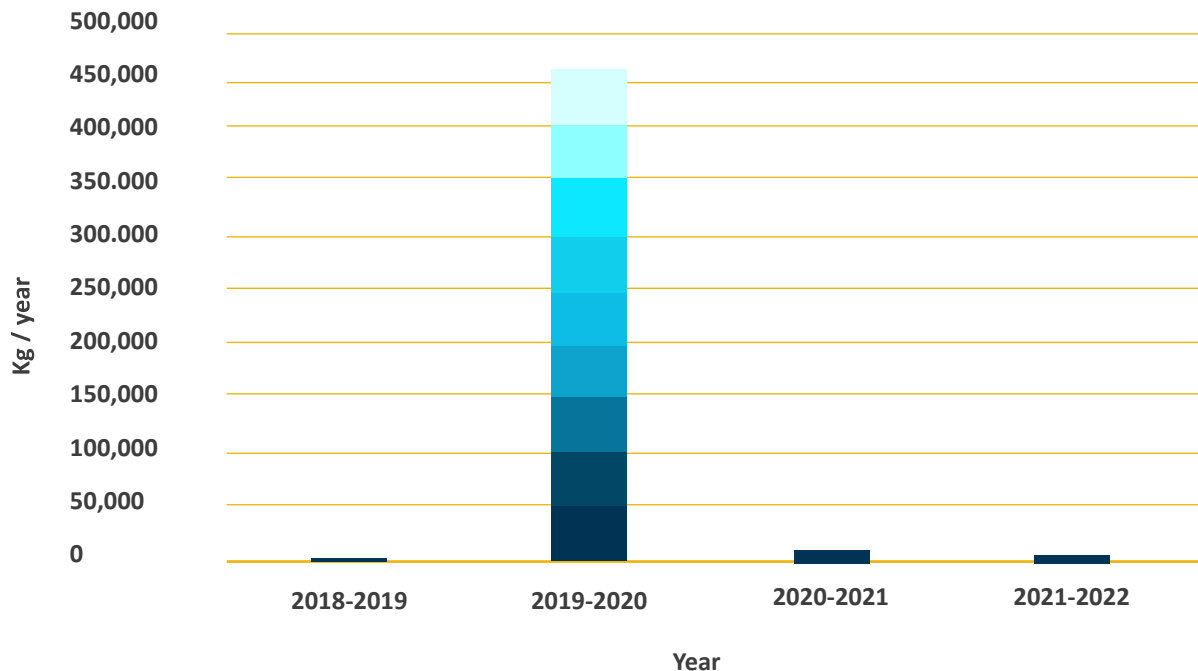


Figure 8 Comparison of Particulate Matters emission loads

On the other hand, the energy intensity of CaCl_2 and Caustic Soda of our products has continuously decreased since 2019-2020 as clarified in the following Table 5. while the energy intensity of PV products has increased.

Table 5 Energy Intensity of the products

Year	2018-2019	2019-2020	2020-2021	2021-2022
Product	MJ/Kg Product	MJ/Kg Product	MJ/Kg Product	MJ/Kg Product
PVC	14.06	15.47	13.5	14.33
CaCl_2	11.14	11.75	11.52	10.15
Caustic Soda	1.79	2.74	3.12	2.53

5.2.3 Our Carbon Footprint

This year, we have increased our production capacities, and consequently, our electricity and natural gas consumption has increased, as seen in the charts in the previous section. Consequently, our total carbon footprint has increased – both direct and indirect emissions in table 6. It should be noted that this year a different emission factor for the natural gas consumption has been used – 1.954 kg CO₂e/Nm³.

This emission factor is based on the actual carbon composition of the natural gas combusted at our plant. Meanwhile, the carbon footprint intensity has decreased in 2 of our three products. As seen in Table 7, the carbon footprint intensity of CaCl₂ has reduced by 9.7%, while the carbon footprint intensity of Caustic Soda has decreased by 0.5%, and PVC Carbon footprint has only increased slightly per product relative



Table 6 Direct and Indirect Carbon footprint at TCI Sanmar

GHG Scope	2020-2021	2021-2022	Percentage change
Direct Emissions (MT CO ₂ e)	221,259	260,705	+17.8%
Indirect Emissions (MT CO ₂ e)	294,508	411,970	+39.9%

Table 7 Carbon footprint per quantity of production

Year	2020-2021	2021-2022	Percentage change
Product	Kg CO ₂ e/Kg Product	Kg CO ₂ e/Kg Product	%
PVC	1.057	1.058	+0.14%
CaCl ₂	0.729	0.641	- 12.05%
Caustic Soda	1.481	1.470	-0.76%

5.2.4 Water Recovery System

As a water-intensive industry and with our desire towards sustainable production, water usage is addressed at several levels, including complex teams, contractors, suppliers and top management through our environmental policy and water management plan. As a result, our Zero Liquid Discharge (ZLD) facilities 1 and 2 were the concrete steps taken in a water-stress country.

Also, several environmental awareness campaigns were held within our complex to ensure sustainable water consumption. These initiatives helped us to reduce our Water Footprint. Wastewater is discharged to the public network after treatment in two ZLD units and recycled up to 90% to be used in the process again. We have also investigated the Freshwater network in the CA plant and eliminated any faulty connections, this maintenance helped save around 300 m³ per day. Consequently, our water consumption this year has decreased by 1% relative to the last year.

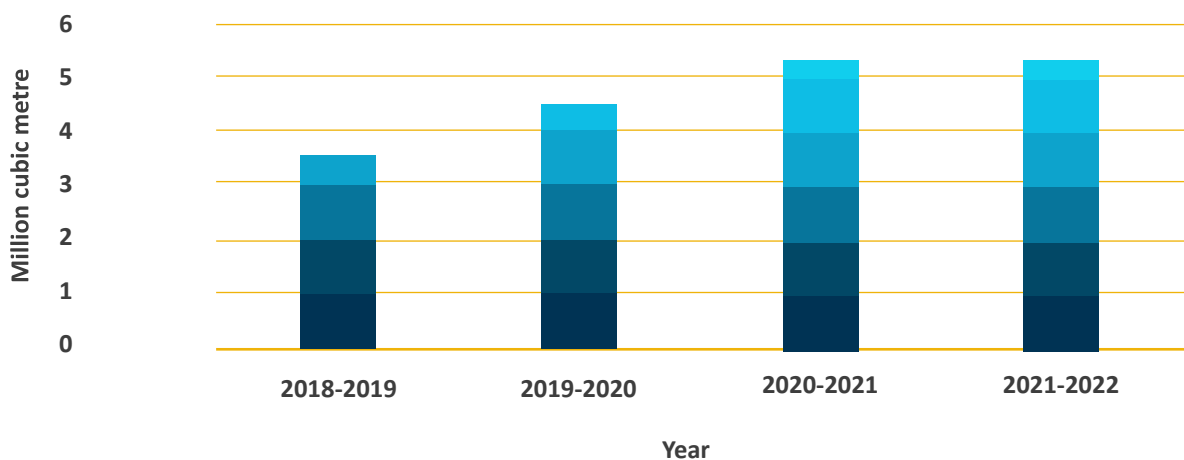


Figure 9 Annual water consumption at TCI Sanmar Complex (million cubic meter)

5.2.5 Minimizing our Effluents

We discharge our wastewater effluent to the industrial drainage according to the Decree of Housing ministry no.44/2000, and according to of the parameters defined at that decree. With the Zero-liquid discharge systems we manage to reuse our water within the process again and again before we discharge. With the ZLD facilities we have managed to divert

200 m³/day

Effluent (200 m³/day) from Demineralized unit 1 to ZLD instead being directed drain to substation.

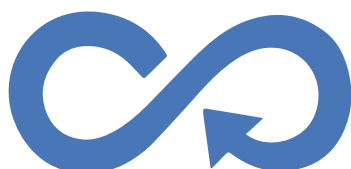
500 m³/day

Contaminated condensate (500 m³/day) to ZLD instead of drain to substation; our total condensate recovery was 516,935 m³

1,200 m³/day

Permeate from our bore well production which is being produced at a 1,200 m³/day

5.2.6 Sustainable Material Consumption



Preserving our natural resources is a core practice in being sustainable. Accordingly, we reuse the chlorinated hydrocarbons liquid wastes to generate steam in the incinerator. Calcium Chloride plant operation consumes the Hydrochloric acid generated in the VCM Plants thereby reducing the need for neutralization using Limestone which resulted in controlling the effluent generation.



5.3 Sustainable Value Chain

An essential part of our business success is how well we manage those who work on our behalf. We engage with suppliers that comply with local laws, respect human rights, and create opportunities for historically underrepresented groups. Our company-wide procurement approach applies a rigorous set of standards and accountability.

We are deploying a full range of tactics to achieve our ambitious target. We reduce direct carbon emissions by introducing innovative processes and converting to green fuels and sustainable materials, avoid indirect emissions by expanding the use of renewable energy and compensate for all unavoidable emissions. Our plan also includes active interactions with the customers and society by conducting a life cycle assessment (LCA) that quantitatively evaluates a product's environmental impacts throughout its entire supply chain, from raw material sourcing to product development.

TCI Sanmar continues to promote supply chain management, adhere to the values of safe, timely, green, and cost-effective procurement, and incorporate sustainability concepts into a compliant, green, and responsible procurement system. The Company has built a risk identification and management method covering supply resources, purchase price, etc., and released a series of supplier social and environmental risk prevention rules.



The Company is committed to promoting the awareness and ability of suppliers to improve product quality and protect the environment by integrating environmental protection requirements in the process of the supplier qualification inspection. The Company conducts an assessment and evaluation of suppliers regarding environmental protection, resource conservation, and sustainable development and urges suppliers to continuously improve product quality and practice the concept of green development.

We train our procurement staff to conduct prequalification assessments, which help determine a supplier's capability to provide the required materials or services. We examine a supplier's operational, technical, and financial performance and conduct mandatory anti-corruption due diligence for suppliers in relevant countries. During due diligence, we identify higher-risk parties, gather additional information, and consult with our Legal Department if further action is needed.



5.3.1 Value Chain Management Policy

TCI Sanmar aspires to create a responsible supply chain for the products it manufactures. We adopted a “responsible sourcing policy” that applied the OECD Due Diligence Guidance for Responsible Supply Chains.

Code of Conduct for Suppliers

We established the “Code of Conduct for Suppliers” based on international rules, standards, and legal requirements to ensure suppliers’ consistent implementation of their social responsibilities. The Code of Conduct consists of matters that suppliers must comply with, such as human rights and labor, business ethics, health and safety, environmental sustainability, responsible mineral sourcing, and reporting systems. Based on this, it verifies the adequacy of the supply chain management system in advance from the selection of new companies and continuously manages the risk of the supply chain through regular evaluation and monitoring processes.

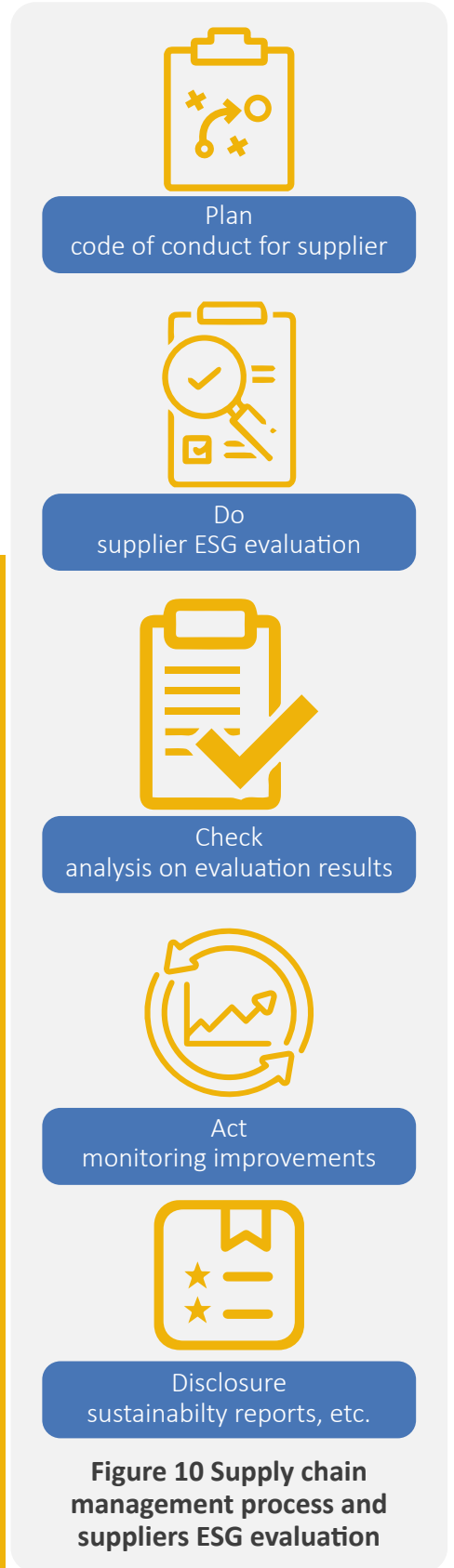
5.3.2 TCI Procurement Strategy

TCI Sanmar establishes and operates a systematic supply chain management. We proactively identify and manage supply chain risks through verification of their system adequacy as well as ESG evaluations and risk improvements at the new supplier selection stage. Our cooperation with external agencies also ensures objective management.

Due diligence in the raw material supply chain

To secure the transparency of raw materials, TCI Sanmar conducts due diligence on raw material suppliers within the supply chain. We apply international guidelines recommended by the UN and OECD to build a system for managing our suppliers' ESG activities across value chains.

Our Journey to Sustainability



TCI Sanmar conducts ESG evaluation to identify suppliers' potential ESG risks and statuses and form a sustainable supply chain. The evaluation items include GHG emissions, energy reduction, safety and health, human rights, and ethics. We plan to modify those items to include more evaluation targets and enhance the document submission requirements.

We also intend to audit high-risk suppliers according to the evaluation results through third-party agencies and undergo subsequent monitoring. We share the results with our suppliers and request them to manage risks through improvement measures as necessary. We plan to operate various supplier programs such as financing, system support, and safety and health enhancement support to improve suppliers' ESG capabilities.

5.3.3 Roles and Responsibilities of the Procurement Strategy Team

The Procurement Strategy Team participates in devising procurement strategies and managing procurement performance. We evaluate the suppliers' ESG levels and work to improve their capabilities according to the evaluation results. We also standardize the standards and regulations of different divisions. Furthermore, we focus on managing risks in the supply chain in line with climate change, war, increasing oil prices, and other variables.

We divide the suppliers into those involved in direct procurement and those involved in indirect procurement. Among them, we prioritize direct procurement suppliers as part of our efforts to build a sustainable supply chain.

By supporting local suppliers, an organization can indirectly attract additional investment to the local economy. Local sourcing can be a strategy to help ensure supply, support a stable local economy, and maintain community relations.

Our team's goal this year is to conduct ESG evaluations to cover 70% of the domestic suppliers' procurement amount. We aim to cover 70% of the total procurement of both domestic and overseas suppliers by 2023 and 80% by 2024. Suppliers conduct ESG evaluations independently, so the level of performance varies on their evaluation extent. It is essential to encourage their participation. Also, we are seeing a growing demand for expanding LCA or carbon emissions reduction plans to include the suppliers. This would be challenging as we will need to gather data from the suppliers. As primary steps, we will get suppliers' data by essential item and gradually expand the scope of actual data.





5.3.4 Procurement Categories

In TCI Sanmar Supply Chain’s Suppliers/ Contractors are arranged according to five procurement categories as seen in Table 7.

Table 8 Procurement Categories at TCI Sanmar

Description	Number of Suppliers	%	Spend USD in M	%
Raw Materials & Packing	55	8%	309	56%
Spares & Engineering	282	43%	16	3%
Services, Contracts & Logistics	305	47%	70	13%
Utilities& Energy	7	1%	111	20%
Taxes and Duties	8	1%	42	8%
TOTAL	657	100%	548	100%

5.3.5 Yearly Primary Raw Material Supply

270

Limestone Powder: 270 K Tons - non-renewable material

67

Limestone Granules: 67 K Tons - non-renewable material

63

Ethanol: 63 K Tons - a renewable material

240

Washed Salt: 240 K Tons - non-renewable material

395

EDC 395 K Tons - a renewable material

5.3.6 Local Procurement Parameters

In Egypt, most of our local suppliers are based in Cairo, followed by Port Said as seen in Table 8 below.

Table 9 Summary of the details of our local suppliers

	Local Suppliers				
	Alex.	Cairo	Giza	P. Said	Others
No. of Contractors	30	155	23	31	47
Totals spend M\$	3.3	99.5	3.8	22.6	9.7

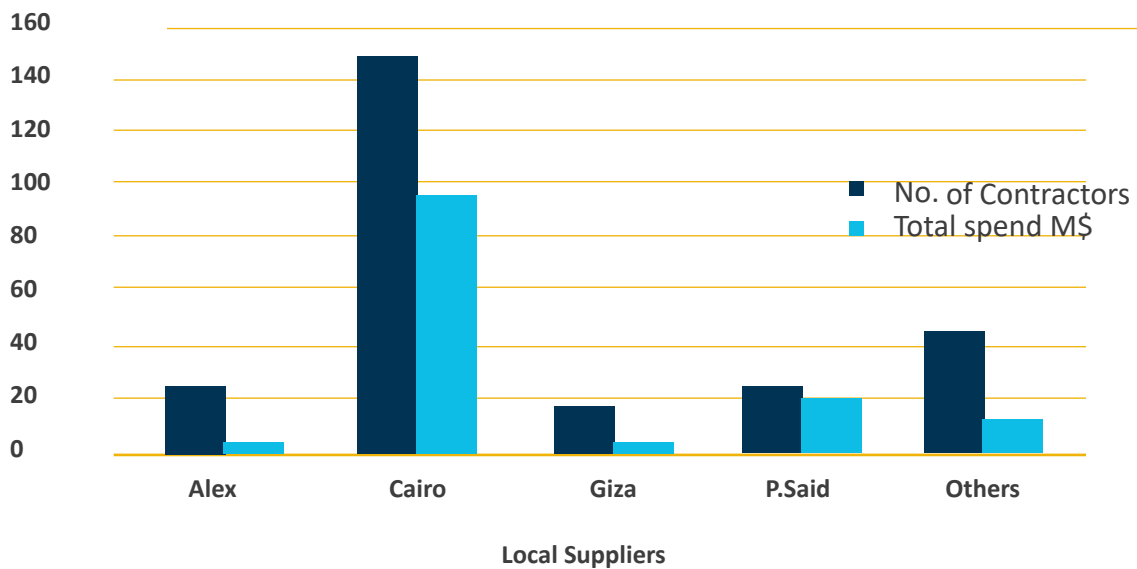


Figure 11 Summary of the details of our local suppliers

5.3.7 Import Procurement Parameters

Table 9 Summary of the details of our Foreign suppliers

Foreign Suppliers					
	India	Japan	Switzerland	USA	Others
No. of Contractors	99	2	3	3	51
Totals spend M\$	10.4	11.6	315.6	13.2	26.0

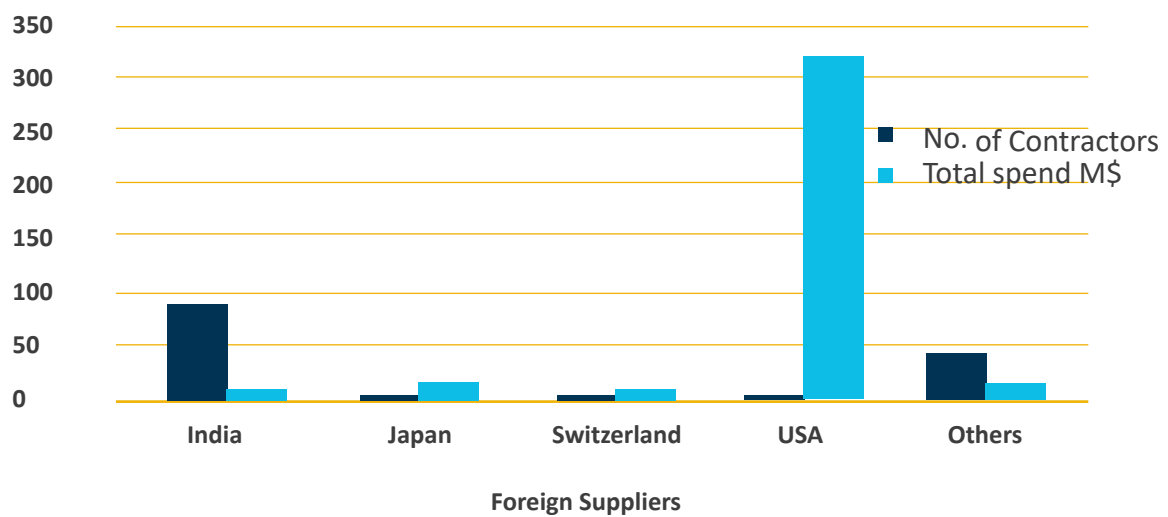


Figure 12 Summary of the details of our Foreign Suppliers

5. TCI Certifications and Standards

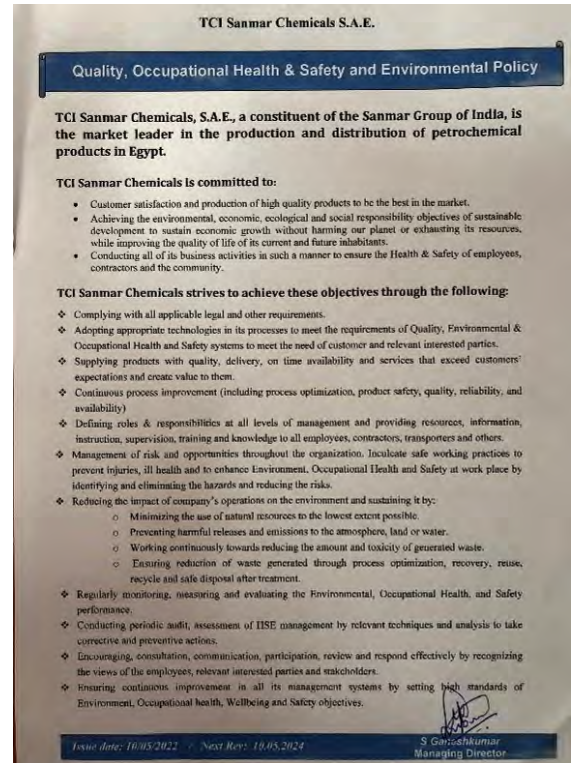
We have renewed our ISO 9001:2015 Quality Management Systems — Requirements which demonstrates our ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements.

We have renewed our ISO 14001:2015 Environmental management systems — Requirements with guidance for use.

TCI Sanmar is a Certified OHSAS 18001 Standard Organization, and its occupational health and safety management, and all impact, risks and opportunities are identified accordingly.

TCI Sanmar signed several contracts for Firefighting Equipment Maintenance and Nucleonic Radiation Source Supervision.

TCI Sanmar implements and maintains occupational health and safety management system according to the ISO 45001:2018 standards in all operations and activities, Cross-inspection Groups system for internal part-wise inspection.



Our Journey to Sustainability



Marketing and Sales

6.1 Our Market Position and Products

TCI Samar Chemicals, S.A.E, a constituent of the Sanmar Group of India, is the market leader in the production and distribution of petrochemical products in Egypt.

TCI Samar Chemicals is committed to:

- ▶ Customer satisfaction and production of high-quality products to be the best in the market.
- ▶ It is achieving the environmental, economic, ecological, and social responsibility objectives of sustainable development to sustain economic growth without harming our planet or exhausting its resources while improving the quality of life of its current and future inhabitants.
- ▶ It conducts all business activities in such a way, ensuring the Health & Safety of employees, contractors, and the community.



6.2 Green Marketing Strategy

TCI Sanmar is the most significant Indian investment in Egypt, with USD 1.5 billion (foreign direct investment). The company manufactures three main products: Polyvinyl Chloride, Caustic Soda, and Calcium Chloride.

Significantly, TCI Sanmar is considered the largest manufacturer of Polyvinyl Chloride in the Middle East & North Africa region, which happens to be an essential product used in infrastructure development, which is one of the most important economic growth engines around the world.

Additionally, TCI Sanmar manufactures all three grades of PVC with varied commercial applications and other products that serve the country's strategic needs, such as Chlorine and Sodium Hypochlorite.

Client satisfaction is crucial material for the Marketing Department of TCI Sanmar. Maintaining client satisfaction is a priority for the Marketing Department by offering competitive prices and ensuring on-time product delivery and reliability.

According to TCI Sanmar Marketing Strategy, which focuses on the local market, the sales and marketing team play a vital role in creating opportunities to augment TCI Sanmar's position and scale in the national and international markets. TCI Sanmar maintains its position as a market leader on the national level by maintaining consistent minimum downtime through improved efficiencies in operations, a high level of quality assurance, achieving the planned sales targets and following the customers' feedback, and coordinating with the technical team for any required technical support to fulfill customer's needs.

Essential chemicals positively impact climate efficiency. For every ton of CO₂ emitted during production, our products help save significant CO₂ emissions via the applications in which they are used. To hit climate targets, chemicals will be needed to drive more efficient technology.

TCI Sanmar has a diversified product portfolio with a wide range of end market applications. Our chemical intermediates businesses, with leading global positions and differing industry cycles, provide earnings strength worldwide.

We are committed to continuous improvement across all activities and are working with local and international communities and stakeholders to be responsible neighbors.

The Department Highlights:

- ▶ TCI Sanmar succeeded in maintaining its position as a market leader on the national level by maintaining consistent minimum downtime.
- ▶ TCI Sanmar acquired 40% of the market share of chlorine, 55% of the market share of CaCl₂, 20% of the market share of caustic Soda, and 60% of the market share of PVC in 2019/2020.
- ▶ The company also exports almost 37 % of its production to several countries.
- ▶ In 2021/2022, the market of PVC Cables compounding in Egypt was successfully penetrated by TCI Sanmar, and some manufacturers have started using TCI Sanmar resin regularly.



Export Countries



Figure 13 List of Export Countries

Turkey	Libya	Algeria	Tunisia	Morocco	Cyprus	Italy	Greece	Spain	Lebanon
Portugal	Romania	Poland	Syria	France	England	Belgium	Belgium	Argentina	Brazil
Bulgaria	Canada	Jordan	Oman	Senegal	Slovenia	UAE	India	Saudi Arabia	
Kuwait	Chile	Croatia	Djibouti	Finland	Georgia	Hungary	Mexico	Pakistan	
South Africa	Togo	Nigeria	USA						

6.2.1 The Intended Purpose of the Strategy

As the chemical industry evolves into the world's solution provider for modern global challenges, its obligation to adhere to sustainable principles and practices becomes increasingly critical.

One of the most attractive concepts for pollution prevention is sustainable/green chemistry. This new approach aims to prevent the creation of hazardous wastes and to avoid the arduous and costly ordeal of pollution treatment and disposal. In recognizing the concept of sustainable/green chemistry as a new and vital scientific frontier, the Action will provide a unique opportunity/ flagship in the market. Accordingly, our products make an indispensable contribution to society. TCI Sanmar Bridging the theory and the practice enables us to provide national and international practical, evidence-based solutions for sustainable/ green products by using for example, Friendly Electric Vehicles. Our Product Grades are Likely to be K70 and K57 in jumbo bags and 25 kgs with pricing likely to be 15 to 20 % higher than normal PVC.

6.2.2 Cost Action on Green Chemistry

The various chemistry and chemical engineering industries are significant contributors to contemporary economic developments worldwide. Pollution prevention is one of the chemical industry's most critical worldwide priorities. Although the chemical industry has an impressive record of improvements in waste treatment and abatement, the chemical industry is frequently viewed as the cause of many environmental problems. Worldwide demand for environmentally friendly chemical processes and products requires the development of novel and cost-effective approaches to pollution prevention.

6.2.3 Green Chemistry in Our Context

The phrase "sustainable/green chemistry" is an elastic term and can mean different things for different companies.

"Sustainable chemistry" is the design of chemical products, applications, and processes that reduce or eliminate the use or generation of substances with hazardous potential and limited socio-economic benefit. This may involve reduced waste products, non-toxic components, and improved efficiency. Sustainable chemistry applies across the life cycle of a chemical product, including its design, manufacture, use, and final disposal.

Sustainable chemistry is a highly effective approach to pollution prevention and it delivers on societal needs because it applies innovative scientific solutions to real-world environmental and demand situations.

Hence, 'green chemistry' can be summarized as products and processes with similar or superior properties compared to conventional petroleum-based products and processes capable of reducing the long-term consequences to the planet.

6.2.4 Why Green Chemistry?

As part of the global energy transition and to avoid climate change, the Paris Agreement envisages a reduction of greenhouse gas emissions to 40% by 2040, starting from the base year 1990. Accordingly, companies are growing interested in solving the question of their climate neutrality transparently and sustainably. In addition to their motivation, customer demands for climate neutrality are becoming increasingly important from an economic standpoint.

Given our grave environmental concerns, new thoughts about circular and sustainable economies have become a major strategic challenge.

6.2.5 Pillars for Green Products

Use of alternative and renewable reagents that reduce material loss and waste generation, the substitution of toxic materials and solvents, improvement of natural synthesis processes, minimization of energy consumption, and the study and development of new substances that do not pollute the environment are all part of the scope when the search for sustainability becomes a priority.

To maintain the momentum in driving initiatives and achieve improved EBITDA in FY 2021, the following critical actions are set to be implemented:

- ▶ Improve PVC sales realization (accelerate trial and approvals for cable applications, increase domestic/direct customer share, improve customer service)
- ▶ Improvement in PVC quality
- ▶ Ramp up Chlorine, HCL and CaCl_2 sales



6.2.6 Direct Economic Value Generated

In 2020/2021, TCI Sanmar acquired 40% of market share of chlorine, 55% of market share of CaCl_2 , 20% of market share of caustic Soda and 60% of market share of PVC.

40 chlorine	55 CaCl_2	20 Soda	60 PVC
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Sanmar generated revenues through local market grew from USD 45 million in 2016 to USD 375 million in 2022. Similarly, export revenues grew from USD 119 million in 2016 to USD 250 million in 2022 (year wise details given in figure 15).

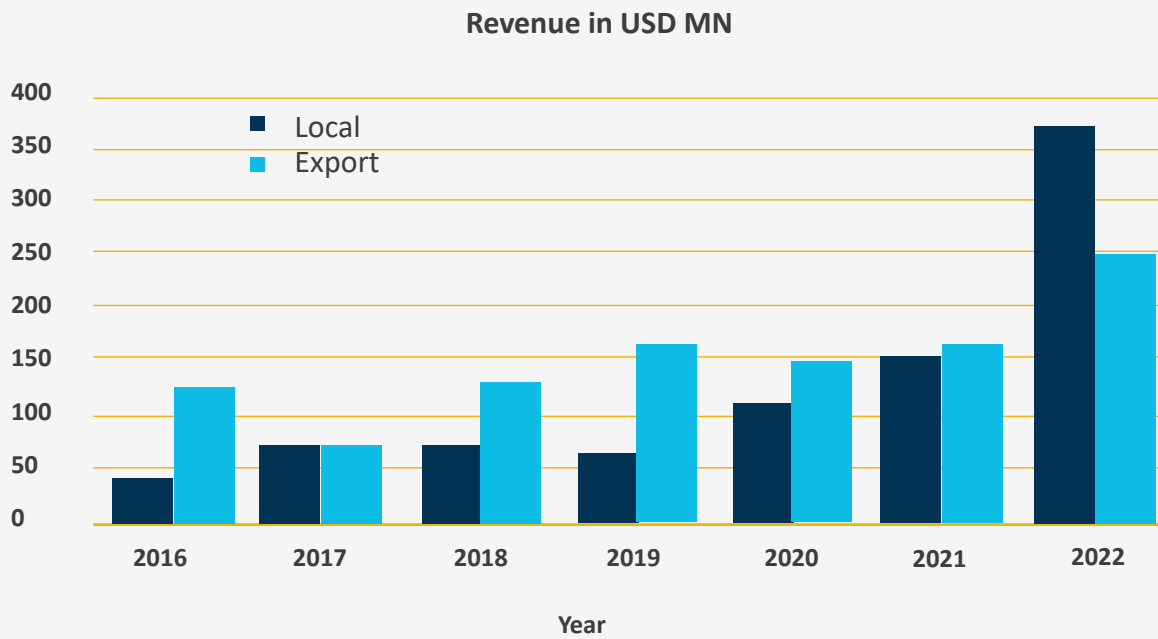


Figure 15 Revenue generated in 2021-2022 from local sales and exports

6.3 Diversified Products Portfolio Showcase

TCI Sanmar participates in “Plastex 2022” to showcase its diversified products portfolio



TCI Sanmar Chemicals participated in the 18th session of “Plastex”, the most significant event in the sector of plastic industries serving markets in the Middle East and North Africa, taking place on 9-12 January under the patronage of the Egyptian Cabinet and in the presence of H.E. Minister of Trade & Industry Nevine Game. TCI Sanmar Chemicals strives to share its exceptional expertise in the local market, showcasing its diversified products portfolio.

- ▶ K-7001 is a medium molecular weight Polyvinyl Chloride homopolymer suspension resin produced by the suspension process.
- ▶ K6701+ is a medium molecular weight polyvinyl chloride homopolymer suspension resin produced by the suspension process.
- ▶ Produces Liquid Caustic Soda (50%) commercial grade with clear, colorless & odorless liquid free from foreign matter.
- ▶ Produces high-quality Calcium Chloride Granules with a minimum of 94% content by neutralization process

- ▶ TCI Sanmar is a significant player in the Egypt Plastic Industries ecosystem
- ▶ TCI Sanmar is the sole manufacturer of Green PVC globally
- ▶ TCI Sanmar pays special attention to social responsibility through implementing numerous development programs serving Port Said.

The company's participation came as part of its deep-rooted commitment to reinforcing Egypt's vision 2030 for sustainable development by showcasing its diversified products portfolio, including Calcium Chloride, Caustic Soda, as well as Polyvinyl Chloride (PVC), the company's main product which is used in infrastructure development and one of the most important economic growth engines around the world.

Our participation in "Plastex 2022" comes to serve TCI Sanmar's strategy, which aims to enrich the petrochemical industry, being a leading catalyst for many other complementary industries, such as plastic products, including drinking water and sewage pipes, building materials, paper and pulp industry, alumina, packaging, personal care, etc. It also represents the optimal exploitation of natural reserves available in abundance in Egypt, such as Salt, Limestone, Natural Gas, and by-products of the Sugar industry, and the achievement of significant added value that contributes to supporting the national economy.

Moreover, TCI Sanmar is the only company in the world that manufactures Green PVC using Bioethanol, a by-product of the Sugar industry.





Our Best Practices in 2021/2022

TCI Sanmar met the domestic market's needs for PVC at a time when domestic end users of PVC were unable to import any raw materials either because of the faltering shipping conditions or closure of many major PVC manufacturers due to severe weather conditions such as hurricanes from September 2021 till the end of the year.

The successful trials, approvals, and conclusion of sales of the PVC cable business and started to be one of the trusted suppliers to cables compounding' players in the local market.

Green Ethylene to Green PVC



Waste valorization is at the heart of the company's production process. We use bioethanol derived from sugarcane molasses waste through fermentation process. TCI Sanmar then produces Ethylene from bioethanol to PVC.

We plan to make new expansion for the AEP plant to reach a capacity of producing 60,000 Ton ethylene/year which would cost \$40 million. It is projected that total reduction of CO₂ for the green PVC production in TCI Sanmar 72,000 tons CO₂/Year.



Reduce risk of fossil fuel depletion



Reducing CO₂ Footprint of the Packaging



Sustainable production from renewable feedstock



This product is true leader in the emerging circular bio-economy

**Why
Green PVC**

Strengthening Our Financial Profile

7.1 Financial Policy

Effective financial policies and procedures help provide efficient financial management, risk mitigation, and the alignment of financial operations with the overall mission of our organization. The following chart displays the principles on to which our policy is based on.



7.2 Sustaining our Financial Profile

Enhancing our financial profile has been one of our top targets to promote sustainable finance and we have achieved that during this reporting year. Despite the success, we have faced many challenges in making this improvement such as hiring qualified persons considering the job requirements of the Company which have been a huge responsibility to the HR Department.

Demand for PVC is increasing in Egypt which has a positive impact on our financial status. Also, being keen to adapt just in time inventory strategy for end users thereby helping them plan efficiently on Working Capital. This has led to higher revenue as our operating income increased to USD 112.07 Million in FY2022 from USD 50.27 Million in FY2021 accounting for an increase of 123%, as seen in figure 16

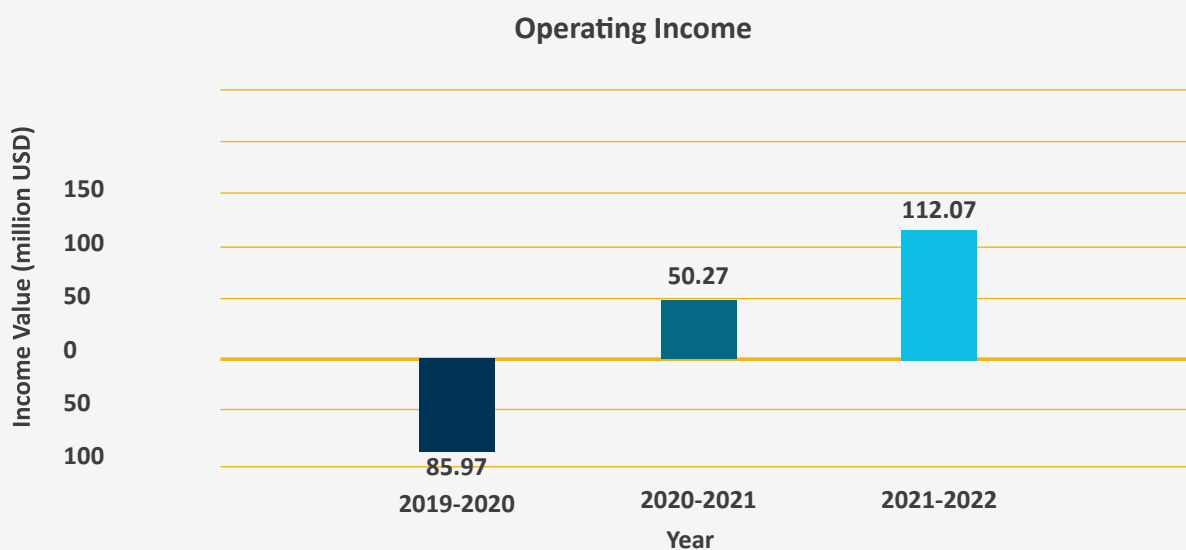


Figure 16 Annual Operating Income

The increase in total assets in 2021-22 compared to 2020-21 confirms the improvement in our revenue and profitability, as illustrated in figure 17.

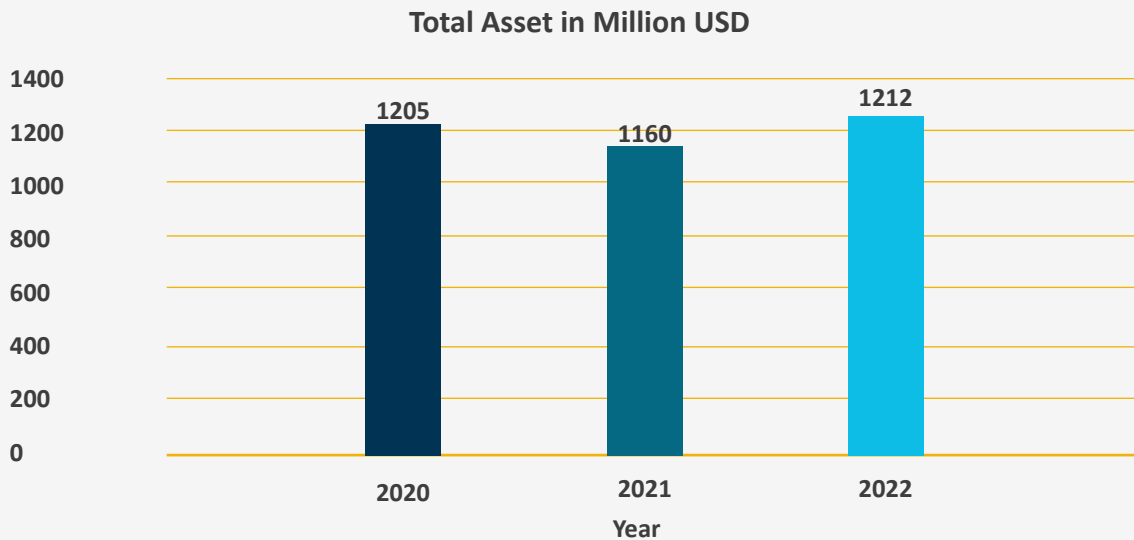


Figure 17 Total Asset in Million USD

Through the last 3 years we were able to prove our ability to improve our financial situation which can be demonstrated in our net equity. We have covered our recorded 2021 deficit of negative net equity of USD (280) million in 2022 by recording a positive net equity of USD 1 million.

Another factor that provides a solid measure of our improved financial performance is the current ratio. During the year 2022 it proved a significant increase – by 206.3% - signifying better liquidity position – as shown in figure 18.

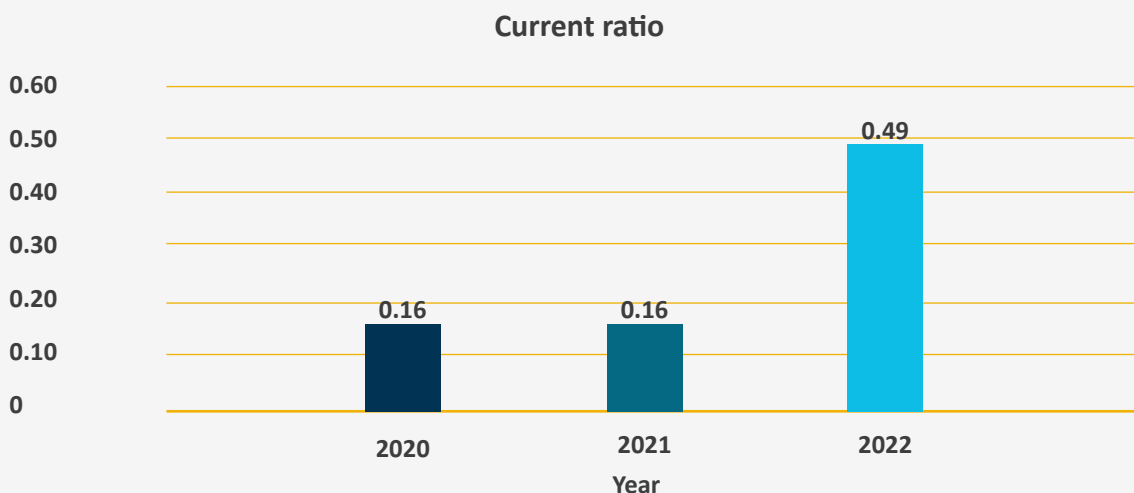


Figure 18 Current ratio along 2020, 2021, and 2022

Figure 19 shows the sales revenue during the last three years. Revenues in 2021 was subdued due to Pandemic. In 2022, we recorded a higher revenue of USD 625 million (an increase of 103% over 2021) due to higher production and realization.

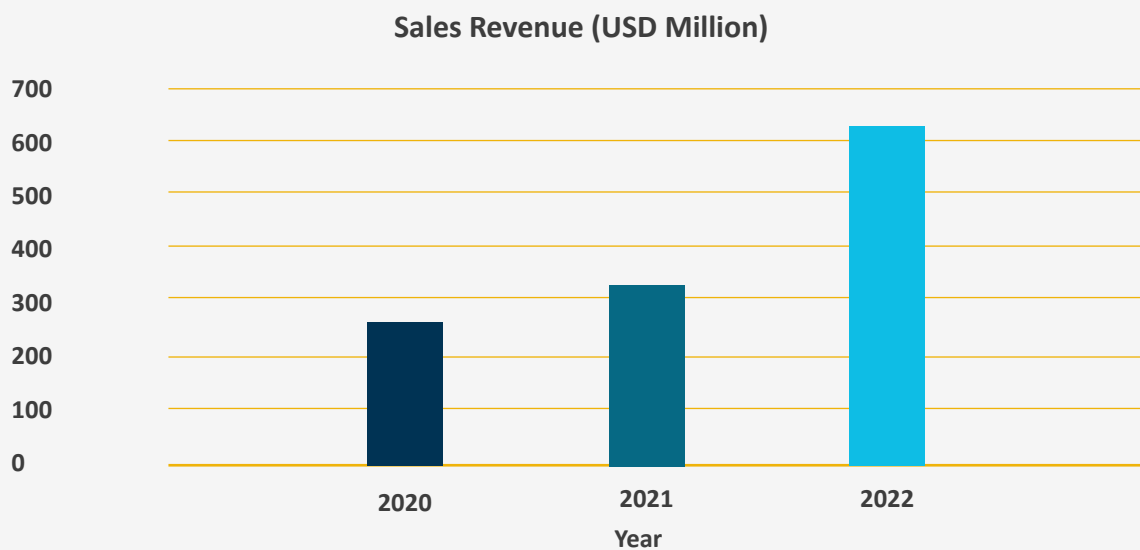


Figure 19 Annual Sales Revenue in USD Million

In fact, the year 2022 witnessed higher product sales across all our 3 products – PVC, Caustic Soda, CaCl₂ - compared to 2021 as seen in figure 20.

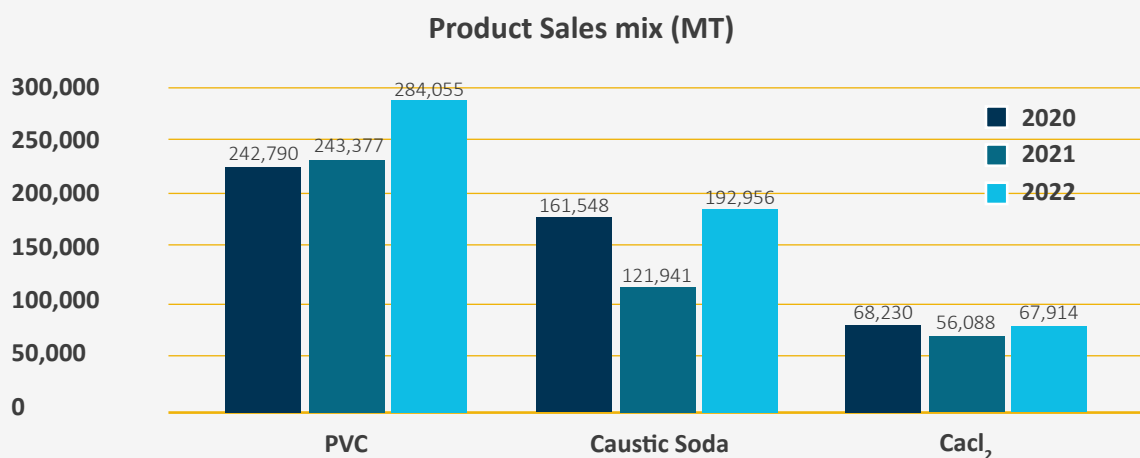


Figure 20 Total quantity of products sold every year

Looking deeper into our production sales , PVC segment accounted for 81% of total revenue generated in 2022. This shows just how much the demand for PVC has been the driver for our improved financial situation.

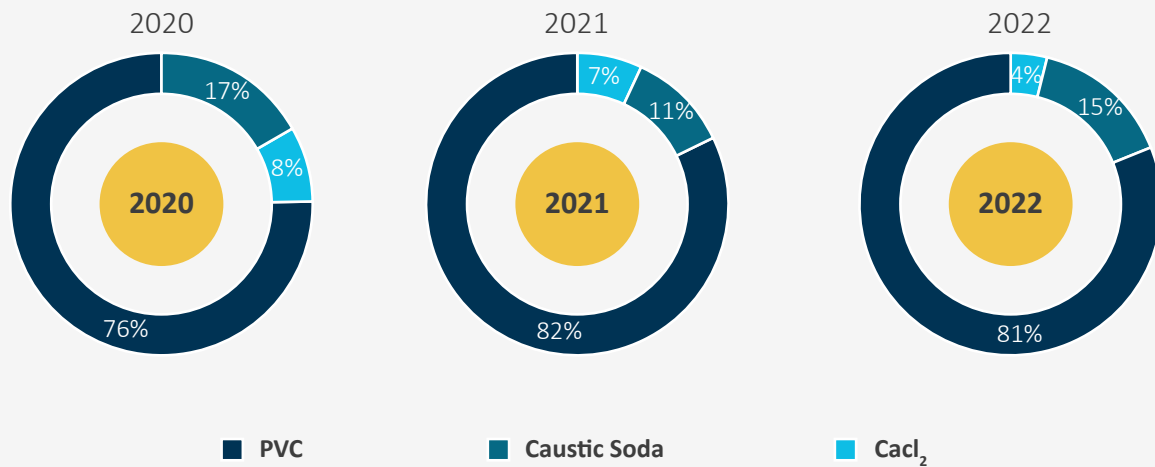


Figure 21 Revenue by product sales in million USD

Local revenue accounted for 60% of the total revenue in FY 2022. The local revenue increased, more than revenues from exports, due to higher PVC sales on account of significant increase in domestic demand drivers as a result of growing infrastructure projects in Egypt like Haya Karima.

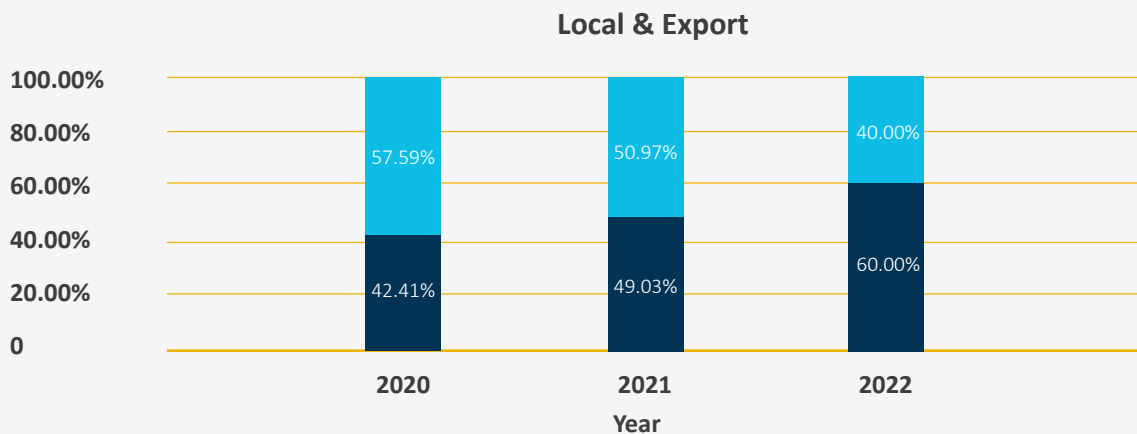


Figure 22 Percentage of sales made Domestic vs Export



The Competent Human Capital Behind Our Success

One of the core responsibilities of every company is managing human resources including hiring, payroll, employment laws, and benefits. The HR Management defines fundamental corporate regulations like parental leave and sick pay and often serves as a communication link between staff members and managers.

Our HR department plays a crucial part in proving a positive corporate culture and managing our Company's operations. Our entire success is influenced by HR's efficient policies. The Department sets policies to organize and enhance the Company's talent and human resources.

8.1 Human Resource Governs

TCI Sanmar human resource rules serve as standards for hiring, labor practices, pay, leave, training, career advancement, working conditions, terminating, and other key duties. How we oversee both people and property is outlined in our HR policies. We constantly offer opportunities that foster personal and organizational growth to help us achieve our goals of building and strengthening our employees' interpersonal, personal, and technical abilities.

We offer healthcare insurance services to our employees. Our Company is fundamentally built on our consciousness of our responsibilities and compliance with all laws and regulations in Egypt, which have an immediate impact on how we treat our workers.

By implementing new health plans and ensuring all Departments are eligible for standardized occupational health and industrial hygiene programs, we increased our efforts to protect and improve the health of our employees. We facilitate employee health and well-being through fundamental programs, including ergonomics, fitness for the workplace, travel health, and hearing preservation that preserve workers' physical, mental, physiological, and actual biological health.

To ensure that our staff members are aware of occupational risks, we expanded the amount of learning and development programs, such as technical training and health and safety training. For example, instructions on the best ways to use equipment and tools in an emergency were part of the training to guarantee that everyone's safety was never compromised.

At TCI Sanmar, a positive work environment enables employees to use their knowledge and experience while also delivering a steady income that meets their needs and allows them to lead comfortable lives. Everyone is welcome to apply for vacant positions because we have a fair hiring process. All earnings align with market average salaries and are higher than the mandated minimum wage

8.2 Talent Retention

Training and development issues and talent retention have been two of the HR Department's main concerns in recent years. One hundred eighty-seven engineers and chemists were promoted from being indirect to direct staff after introducing successful solutions this year. This over the course of four years, has improved our knowledge and ability to innovate.

Other threats included a high rate of turnover, an inability to recruit candidates of higher grade, and a lack of qualified staff. However, due to our efficient management strategies, the attrition rate fell from 2020–2021 to the current reporting year, indicating improvement.



84

Resigned in 2019/2020

32

Resigned in 2020/2021

30

Resigned in 2021/2022

At TCI Sanmar, we are aware of the risks associated with having a high turnover rate because it can compromise the Company's continuity, interrupt operations, and have a detrimental impact on our financial performance. The HR division has responded by implementing the employee satisfaction concept, which attempts to raise employee satisfaction while lowering turnover.

Employees leaving the Company are given exit interviews to share their experiences while working at TCI Sanmar and their reasons for leaving. Exit interviews give us the knowledge we need to boost organizational performance and increase recruitment process efficacy.

Because of the new policies and procedures put in place, fewer employees left than they did the year before. This improved employee satisfaction and maintained the TCI Sanmar community.



8.2.1 New incentive programs have also been created to boost worker productivity. Rewards provided by TCI Sanmar encourage members to surpass their objectives and contribute to our progress. Human Rights and Equal Opportunities

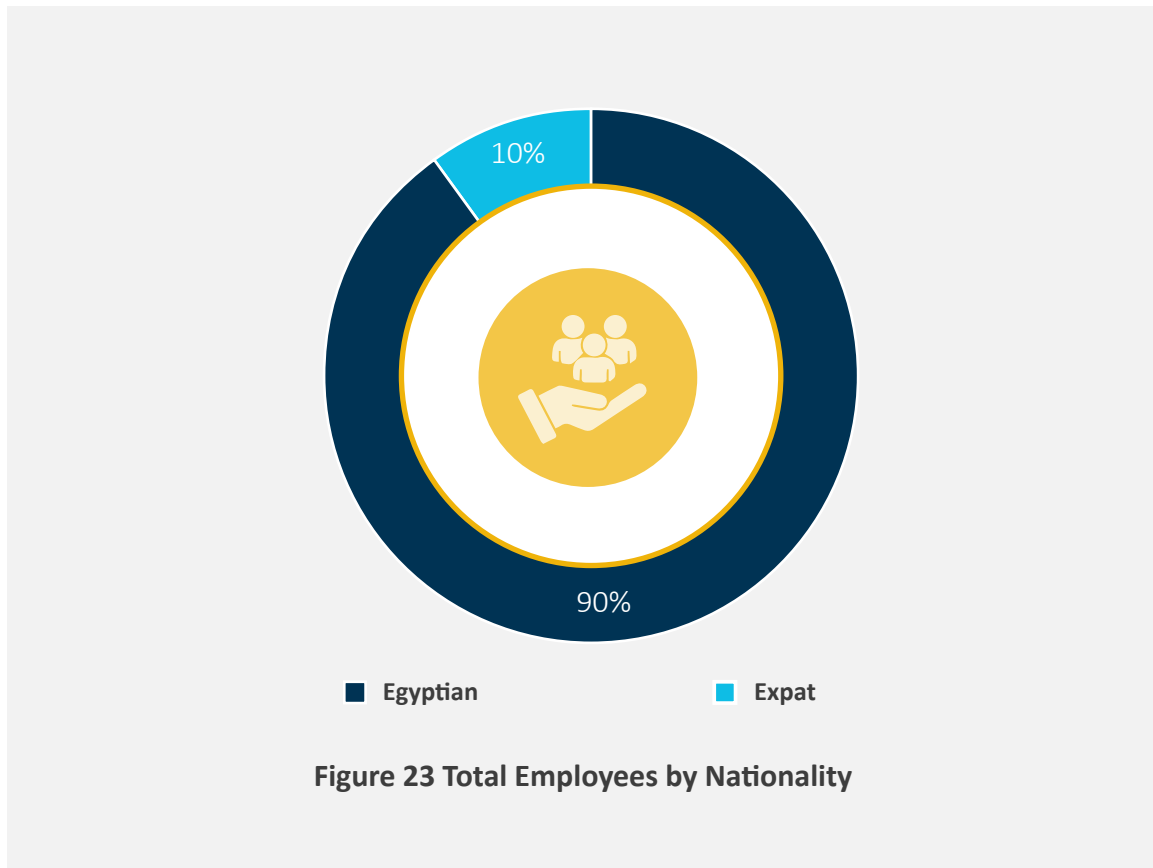
We value the variety of our personnel and treat them all with respect as valuable members of our team. Our HR Department has a duty to make sure that choices regarding recruiting, selection, development, and advancement are made based on merit, qualifications, capabilities, and accomplishments. We support equal opportunity and refrain from judging or treating people differently based on their race, color, religion, age, national origin, marital status, disability, or political affiliation.

Our Code of Conduct reflects our dedication to human rights; in particular, TCI Sanmar upholds the idea that everyone has the right to be given dignity and respect. By upholding safe working conditions, we express our conviction in and respect for human rights while defending and helping the communities in which we operate. Because all genders receive fair and equal pay, there is no discrimination in the workplace. Since no employee is subject to outside coercion, there is no forced labor in our society.

The employment of any forced labor, including child labor, is prohibited by law and is inhumane, according to TCI Sanmar. Since child labor goes against our rules and morals, we make sure that none of our suppliers use it. Finally, we ensure that the business is a sexual harassment-free workplace.

8.2.2 Our Workforce

Ninety percent of our workforce is Egyptian, allowing us to support our community; while 10% of our workforce is international, which has a positive effect as it introduces fresh experiences and enhances the skills of local workers.



We employ a total of 384 males and nine women due to the nature of the industry, the demands of the job, and the working environment. As part of our efforts to be more inclusive, we have put into place a policy that aims to create a more balanced workplace by recruiting more women in various management levels to increase gender diversity in our industry and our labor supply. We understand that having a more diverse staff leads to better collaboration in the workplace, which strengthens our competitive advantage.

We have surpassed our goal for education sessions in 2022, giving our staff the skills they need to manage any difficulties. The training center has a general safety training program that teaches employees at all levels about firefighting, emergency plans, and chemical hazards for both TCI Sanmar and contractor employees. All staff participate in additional expertise that covers work permit systems, radiation dangers, and operating in high areas. We make sure that all our employees are knowledgeable about the most recent operational tactics.

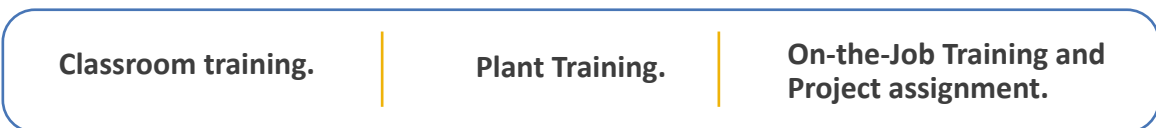
8.3 Graduate Education Training Program

The company believes in its societal role, so we have placed targets on university youth students because of their importance in having a well-developed community. Based on the objective mentioned above, we have created the (GET) program to give educational support during community programs in the Port Said region, where we serve. The Sanmar Group's strategic goal led TCI Sanmar management to duplicate the outstanding GET initiative in India in Egypt.

TCI agreed to the suggestion of hiring 8 GET initially by screening, testing, and interviews made up the first round of candidate choice, which was completed in December 2020. These individuals, who will expand their talents and generate original ideas at work, were chosen to reflect the diversity of engineering divisions. The second phase of this program has been processed in this reporting year which consisted of twelve engineers selected among the best graduates of 2022.

The shortlisted individuals were granted a one-year internship deal. Also, the candidates received both classroom and on-the-job learning with specialised mentors and subject-specific trainers.

They have entry to every area of the plant for added learning and training. The GET training program consists of three major components:



8.3.1 Partnerships

Agreement with the College of Engineering - Port Said

The Company partners with Port Said University - Faculty of Engineering to receive help from the university's academic expertise in training some employees in the company, which will have a positive impact on the industry.



Green Power Initiatives

Faced with the real problem of depletion of non-renewable and limited resources, global warming of the planet and general pollution and endangerment of the environment, TCI Sanmar has opted to source its energy from renewable sources within the plant – re-using the steam produced at our plants – and beyond the plant – by installing photovoltaic cells. In both initiatives, we aim to reduce our electricity consumption from the national grid.

9.1 Photovoltaic cells

At TCI Sanmar, we have the asset of a spacious rooftop, low shading effect, and at substantial power consumption make it best suitable for installation of Photovoltaic cells. Our plans include the **installation of a 4 MWh photovoltaic system** to reduce our reliance and thus consumption of electricity from the grid. The first phase of the project will be providing 1 MWh until we ramp up to 4 MWh by the end of 2023.

Tapping into the renewable energy plans will unleash many benefits to our company such as:



Reducing costs of electricity.



Increase value of energy-efficiency.



Decrease in the overall carbon footprint.



Improving our branding as a company.

9.2 Steam Microturbines

Within the framework of rationalizing and maximizing the use of energy and the environment policy of TCI Sanmar Chemical, the company's management has resolved to replace the conventional steam pressure reduction units used in the steam network with five micro turbines in order to benefit from the steam energy produced at high pressures in the production of electricity, where it makes the best use of the process of reducing the steam pressure to generate electricity while maintaining the provision of steam at the pressure necessary for use in production processes.

For pressure let down, Pressure Reduction and Desuperheating systems (PRDS) are being used conventionally.

To elaborate, the process plants at TCI Sanmar have a huge steam network operating at different levels of steam pressures. These constitute of 7 boilers and primarily produce 20 barG steam which is considered as High Pressure (HP) Steam. HP steam is further reduced into Medium Pressure steam (MPS) of 10 barG and Low-Pressure Steam (LPS) of 4 barG.

Pressure reduction by control valve is the basic mechanism of the PRDS, but the enthalpy (heat energy) of steam is being lost into the system. To conserve this enthalpy, microturbine will be used where pressure reduction takes place by rotating a turbine which is connected to generator.

Microturbines will be installed in 5 different pressures blowdown station which combinedly generate 2.61 MWh of electricity per hour, reducing our annual electricity consumption by 18,980 MWh. Steam microturbines use steam to produce electricity independently from the heat source. No emissions are associated with the technology itself. Steam turbines are a core element of thermal-based renewable power generation. They have been the industry standard for converting such heat sources into electricity with low carbon emissions. Steam turbines offer cost-effective, dispatchable, and carbon-neutral power – ensuring the grid's stability and supply security.



Figure 24 Location of turbines within the TCI Sanmar plant complex

10.

Focusing on Quality

At TCI Sanmar, we measure our success through our customers' satisfaction. We aim to improve customer satisfaction and the production of high-quality products to be the best in the market. We fulfill this by:

- ▶ Adopting appropriate technologies in its processes to meet the requirements of Quality, Environmental & Occupational Health and Safety systems to meet the need of customer and relevant interested parties.
- ▶ Supplying products with quality, delivery, on time availability and services that exceed customers' expectations and create value to them.



10.1 Improving our Capacities

2021-2022 is a prosperous period where we surpassed all our previous year's production capacity. We have seen an increase in the quantity of production for all our products relative to last year.

18%

18% increase in PVC production

18%

18% increase in CaCl_2 production

51%

51% increase in Caustic soda production

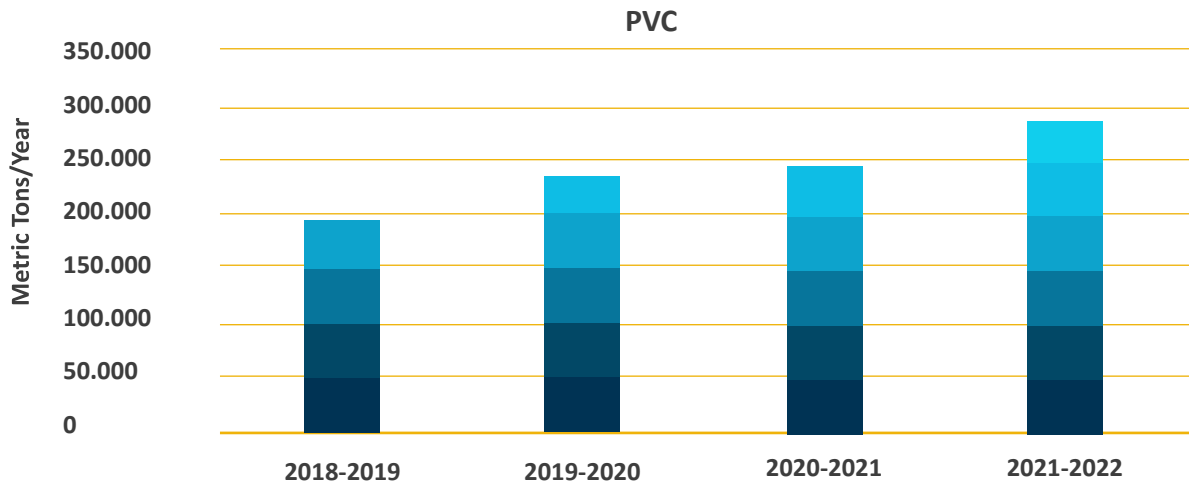


Figure 25 Annual mass production of PVC

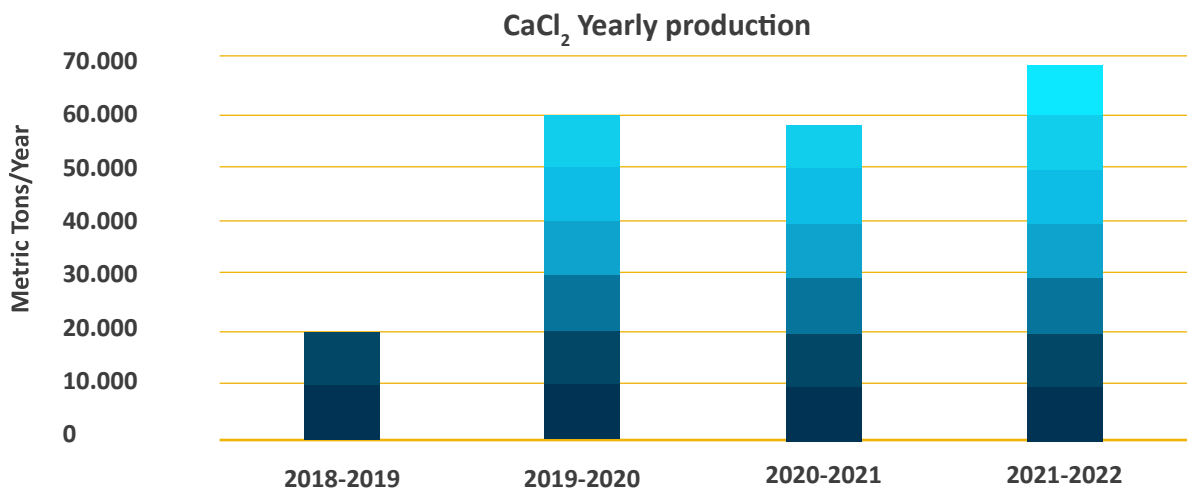


Figure 26 Annual mass production of CaCl₂

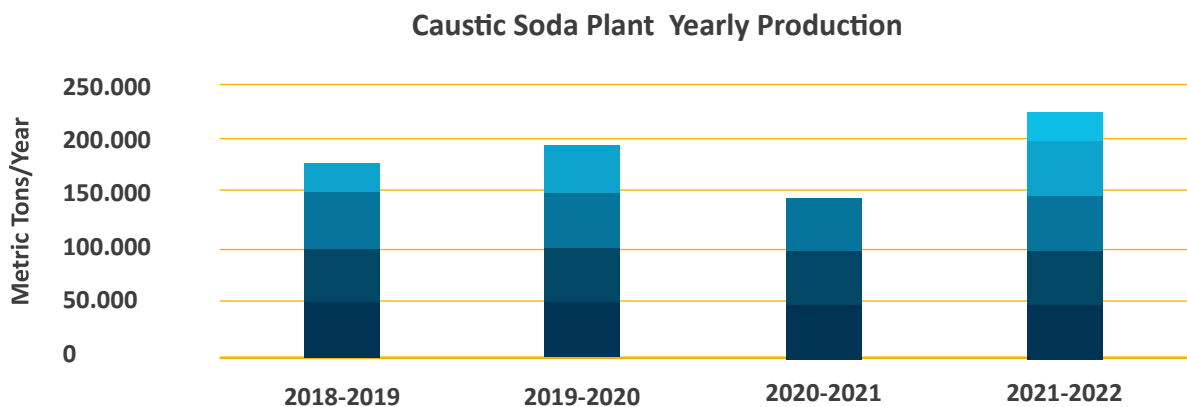


Figure 27 Annual mass production of Caustic Soda

To increase our production with these amounts, our raw materials have increased in the last year as clarified in the following Table 9.

Material	Amount	Unit
Limestone Powder	276026.6	Tons
Limestone Granules	69890.92	Tons
Commercial salt	376448.53	Tons
Ethanol	53712	Tons

10.1.1 Expansion in Green Ethylene Production in TCI Sanmar

Although TCI Sanmar does not produce its entire ethylene demand on site, there are plans to expand the green ethylene plants on-site and to reduce the demand for exporting ethylene dichloride. Currently we are importing 70,000 tons/year of ethanol to fulfill the maximum capacity requirements of the Alco-Ethylene plant from Egyptian Sugar Integrated Industries Company (ESIIC).

Nevertheless, we are relentlessly focused on ensuring that we produce as much ethylene as possible on a yearly basis. In the year 2021-2022, our production has increased drastically to supersede the previous production years. **Green ethylene production has increased by 302% since last year.**

Total Asset in Million USD

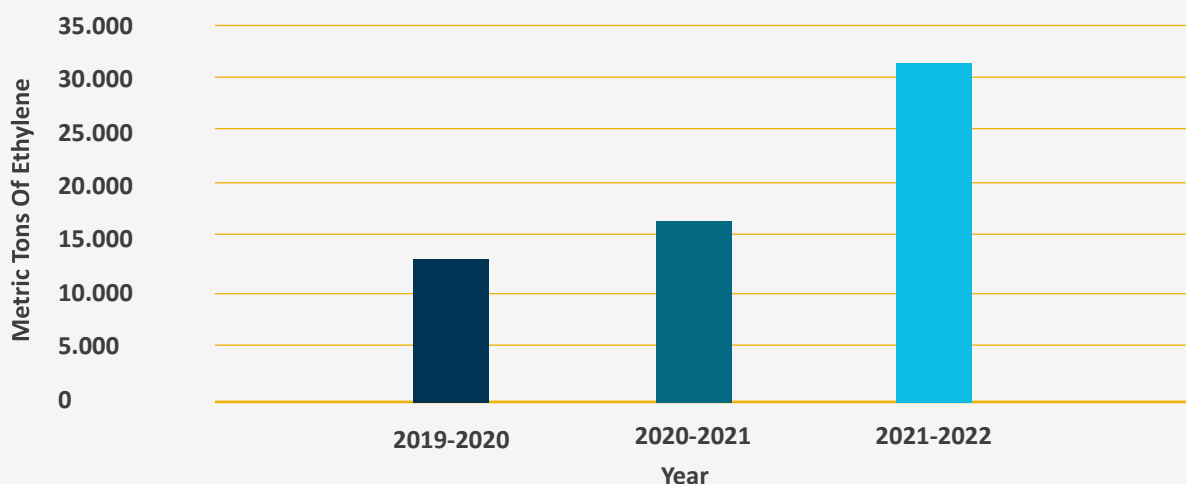


Figure 28 Yearly production of ethylene

10.2 Product Quality in TCI Sanmar

Product quality determines the capacity of the product to meet the specification requirements of a standard or customer. It is often defined as “the ability to fulfill the customer’s needs and expectations”. It is important for TCI Sanmar that quality products are delivered to the customers since they are the topmost drivers for organizational success. After all, growing sales make the foundation of organizational performance remain consistent and grow stronger.

At TCI Sanmar, we have a Product Quality Management System that includes four major components. They are (i) quality planning, (ii) quality control, (iii) quality assurance, and (iv) quality improvement. Product quality management aims to minimize this so that the customer remains happy with the product performance and reorders the products. For this, the organization is to focus relentlessly on product quality.

Quality Planning

Quality planning is the process for ‘identifying which quality standards are relevant to the product and determining the procedures and techniques to satisfy them.

TCI Sanmar is developing the different grades of PVC including K-7001 & K-5701 as special grades in addition to the K-6701 grade which represents bulk production.

K-7001 grade is being used mainly in electrical cable insulation because of its high electrical resistivity and it is being used in other flexible applications like hoses.

K-5701 grade is being mainly used in the pipe fittings production through the molding injection process

Quality control

Quality control is a process which measures and determines the quality level of products. It is the way of ensuring that the results of the manufacturing process are the same as expected.

Our PVC resin is frequently and randomly checked to make sure that the products to be delivered are defect free and acceptable as per the quality requirements of the customer. If the products are not found as per the requirements, a suitable corrective action is to be taken.

Quality assurance

Quality assurance is a complete system to assure the quality of the products produced by the organization

To assure our PVC grades technical specifications meets the customers’ requirements, all our products are tested using the prominent ASTM International methods and INEOS standards and the results are shared with all our customers.

Our high assurance met the requirements of the local markets and is widely used in electric cable manufacturing by companies like Al-Sweedy Co.

Quality improvement

Quality improvement is a systematic, formal approach to the analysis of practice performance and efforts for the improvement of the performance.

We conduct raw material integrity checks at our manufacturing facilities and product development centers to ensure the products meet our standards for use.

We have renewed our ISO 9001:2015 Quality management systems — Requirements which demonstrates our ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements

Prioritizing Occupational Safety and Health

When it comes to people, occupational safety is the foundation for everything else. It takes a safe work environment to be able to focus on increasing efficiency and reducing environmental impacts. Our top concern is that all employees stay healthy with no injuries.

The following section displays the actions we take that demonstrates our keenness in prioritizing the health and safety of our workers.



11.1 Top Management Commitment

TCI Sanmar management believe that safety is a value and a priority, therefore; we our safety procedures and policies are a main part of all our activities. Our safety culture is embedded in our organization and integral to our business.

11.2 Management Safety Walk Through

TCI Sanmar management conducts weekly safety walks through the plant to identify potential hazards and provide immediate support, in addition to engaging with employees to ensure the safety message is spread.

One consolidated sheet is issued to monitor all observation and identify points which require improvement to discuss it monthly and follow up on progress.

11.3 Involving staff as part of the solution

The employees who work in the production plants every day have a heightened sense of the potential workplace hazards associated with their daily activities. Together with our employees, we established a unique Cross-Inspection Groups System (CGIS) systematically compiles this knowledge through audits issued by different teams from each plant.

The cross-inspection group system works by engaging 4 team members from each plant (VCM, CA Plant, etc.); a single plant manager and 3 engineers/supervisors as team members. Each team conducts one audit per month according to schedule on another plant and sends it to the area owner and the Safety Department. The area owner is responsible for completing all reported actions and sending feedback to the Safety Department.

The Safety Department monitors and follows-up the whole system and shows performance in safety management steering committee meeting as a proactive indicator. The resulting outcome helps define and implement appropriate measures that can improve occupational safety.



11.4 Safety Cardinal Rules

TCI Sanmar Corporate Safety Department issued 10 safety cardinal rules to improve the level of safety and safety performance of individual employees and contractors.

It includes mandatory personal protective equipment, confined space entry, work at height, work permit and management of change. TCI conducted many campaigns for increasing people awareness and performance. Also apply discipline system in case of cardinal rules violation.

11.5 Inspection System

Reliability of safety tools and equipment is one of main items of excellence safety, so TCI Sanmar issued an excellent inspection program to ensure all safety tools and equipment are in good condition.

11.6 Management of Change

TCI Sanmar have a procedure for evaluating the proposed modifications in the Plant and approve the changes if it is proper & document the same. It includes improvement changes in Process, Mechanical, Instrumentation, Safety Interlocking, Electrical, Fire, Safety systems and people changes.

The improvement changes shall be from process, maintenance, safety or environment. The changes will be categorized as follows: Permanent changes, Temporary changes, and Emergency changes. The specific changes to be performed shall be highlighted to understand and have clarity on resulting actions.

11.7 Chemical Safety Hazard Communication

The TCI Sanmar Company Hazard Communication Program will be an integral part of the Health and Safety rules and will be made available to all employees. The contents of the program are as follows:

TCI Sanmar Company Written Hazard Communication Program, Notification of Employee Rights, Information on how to obtain Material Safety Data Sheets and to use the information contained in them, a glossary of terms used in Material Safety Data Sheets, Information on how to read and understand manufacturer's labels and OSHA's Hazard Communication Standard.

Also, TCI Sanmar applies chemical leakage protocol to prevent escalation of minor leaks and major incidents.



Operation, Maintenance, and Safety Departments participated in responsibility of inspection to ensure and verify accurate measures. The following inspections are done:

- ▶ All self-contained breathing apparatus (SCBA), air trolley and emergency escape breathing devices must be inspected and calibrated to be ready for normal and emergency use.
- ▶ All lifting gears, tools and equipment must be inspected monthly and calibrated annually, especially overhead and mobile cranes with lifting and rigging plan to avoid any serious lifting incident.
- ▶ All electrical tools and equipment shall be inspected to ensure all connections are safe without any fail, lose or cut and all maintenance will be under LOTOTO procedure to safe all employees, contractors and visitors.

11.8 Raising Awareness with Training

The personal behavior of every employee is the most important factor for always guaranteeing occupational safety. Accordingly, TCI Sanmar places a strong emphasis on accident-prevention training. Such programs typically include sessions related to workplace safety, process safety, plant safety and standard operating procedures with the objective being:

- ▶ Continuous updating of employees with the latest operational procedures to ensure the highest performance.
- ▶ Compliance to the required implementation of the highest safety measures.

Since 2022, a total of 32,661 hours of worker training on occupational health and safety has been completed. To have safety as integral business, TCI Sanmar employees receive induction safety training on the first day of work, followed by specific work-related training such as chemical and electrical hazard training, first aid and hazardous materials training. We have a monthly personnel training program in all our plants, where each employee has the necessary. Our training agenda includes the following programs:

Table 11 Training programs implemented during the period of 2021-2022

Training Program	Category	Target Group	Hours	2021-22 Target
General Safety	Safety	TCI Employees	8hrs./per employee Annually	Achieved 203 %
Firefighting				
Emergency Plan		Contractor	16hrs./per employee Annually	Achieved 136 %
Chemical Hazard		Employees		
On the Job Training	Various	TCI Employees	8hrs./per employee Annually	Achieved 2593 hrs.
		Contractor	16hrs./per employee Annually	Achieved 17320 hrs.
		Employees		
Technical Training	Technical Training	Technical Staff	8hrs./per employee Annually	Achieved 3539 hrs./TCI employee
Confined Spaces				
Radiation Hazards			16hrs./per employee Annually	
Work Permit System				Achieved 8361 hrs./ Contractor employee
Work at Height				
Safety & Induction	Technical Training	New Engineers	8hrs./per employee Annually	Achieved 364 hrs. TCI employee
			16hrs./per employee Annually	Achieved 516 hrs. Contractor employee

11.9 Promoting Health and Wellness

We provide select staff access to non-occupational medical and healthcare services through company clinics, referral systems, health insurance, or financial contributions. In addition, to further promote workers' health, employees are provided with private medical insurance facilities, which they use on a case-to-case basis.

In the face of COVID-19, T.C.I. Sanmar has taken further stringent steps to protect employees. For example, whenever possible, employees were encouraged to work from home to reduce contact with others to a minimum. In addition, strict protective measures were put in place to always provide a safe work environment for those employees whose presence at the site was essential due to their specific roles. These measures included not only new hygienic regulations and the use of disinfectants but also personal protective equipment.

11.10 Process Safety

As a petrochemical company, our focus on process safety is critical for protecting our people, assets, and communities. In 2022, our initiatives were aimed at reducing process fires. We continue working to eliminate these events while monitoring and preventing the events that precede process fires. During the reporting period, our health & safety expenses were 938,125 USD. Our investment towards enhancing the firefighting system for the entire plant has increased to 2.2 US million.

Although, in TCI. Sanmar, we have few hazardous chemicals, we maintain a rigorous safekeeping system that mitigates any accidents—the two main hazardous chemicals used at TCI. Sanmar are (1) Chlorine and (2) VCM Chlorine and VCM are handled in a cool, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources. Moreover, we established a gas leak detection system that ensures no asphyxiation or explosion incidents would occur.

These precautions are supported by the permit to work (PTW); a formal system stating exactly what work is to be done, where, and when. A responsible person should assess the work and check safety at each stage. The people doing the job sign the permit to show that they understand the risks and precautions necessary.

T.C.I. Sanmar ensures that it has a reliable management system across the entire plant. The safety and physical integrity of all its employees, as well as that of visitors and contractors, is a top priority for the company.



Table 12 Work Health Indicators during the reporting year

Work Health Indicators during the reporting year		Records 2020-2021	Records 2021-2022
Sanmar employees	The number of fatalities as a result of work-related ill health;	0	0
	The number of cases of recordable work-related ill health;	3	0
	The main types of occupational health-related work diseases	0	0
For workers who are not Sanmar employees	The number of fatalities as a result of work-related ill health;	0	1
	The number of cases of recordable work-related ill health;	6	3
	The main types of occupational health-related work diseases	0	0

11.11 Product Safety

Our products are chlorine, caustic soda, calcium chloride and PVC. TCI Sanmar is planning to devise a safety program which will be designed to understand and communicate safety impacts of our products, address product regulations and manage risks. To ensure timely access to the most accurate product safety information, we will implement automatic distribution of Material Safety Data Sheets (MSDS) to our customers.

Therefore, customers will automatically receive an MSDS when they purchase a new product for the first time, or when there has been a relevant change to a product they have already purchased. By implementing this change, we create internal efficiencies and ensure customers always have the most up to date information.



Corporate Shared Value (CSV) and Corporate Social Responsibility (CSR)

Corporate Shared Value (CSV) is at the heart of TCI Sanmar's business strategy. It is how we operate, building long-term value for society and shareholders at a meaningful scale. By focusing on depth and scale, we continue to progress against our goal and create meaningful differences in the lives of people in our communities.

Our community impact strategy delivers on our company purpose to empower society with the essential innovations to thrive and enables us to be valued partners and neighbors in our communities. We believe we can make the most significant impact for both communities and our company by leveraging our assets, resources, and unique capabilities as a science-based, innovation-driven company. With this mindset, our employees, businesses, and even our customers can participate in a shared community impact vision that positively impacts people's lives. We create measurable, outcome-based programs and activities with our community partners.

We leverage TCI Sanmar products, technology, and innovation to help solve some of the world's most challenging problems. Our work to build and support thriving communities is driven by the passion and expertise of our employees, who give their time, talent, and treasure to make a difference in the places we live and work.

The company strives to improve people's lives, address their concerns, enhance their sense of benefit, and contribute to social development. Upholding the principle of shared prosperity, the company strives to promote social equity and establish a social contribution system to improve people's livelihood and well-being. Following years of development, the company has established significant areas of social commitment, with education and environmental preservation at its core.

We support the SDGs by responsibly producing, using, and managing chemicals for a better, more prosperous, and more sustainable future. Moreover, we applied cutting-edge technologies and methods to reduce negative effects, safeguard the environment, advance social advancement, and foster economic growth to speed up sustainable progress.

We are committed to reducing our emissions by monitoring and reducing energy consumption. We use more advanced equipment that depends on clean energy to attain a clean and safe environment by utilizing green power energy generation (Photovoltaic cells & Steam microturbines) and green products.

We support the promise of a good education for all to inspire the next generation of a diverse and productive technical workforce. TCI Sanmar is adhering to the sustainable development Goals (Goal 4: Quality Education) as part of TCI Sanmar commitment to sustainability; TCI Sanmar has implemented several development programs to serve Egypt in general and Port Said governorate in particular.

12.11 Social Policy

TCI Sanmar Social Policy is concerned with the ways our employees and individuals from our local neighborhood meet their needs for security, education, work, health and wellbeing. Our Social Policy addresses how we respond to global challenges of social, demographic and economic change, and of poverty, migration and globalization. We provide numerous services and support including child and family support, schooling and education, housing and neighborhood renewal, income maintenance and poverty reduction, unemployment support and training, pensions, and health and social care.

Our Social Policy aims to identify and find ways of reducing inequalities in access to services and support between the different social groups defined by socioeconomic status, race, ethnicity, migration status, gender, disability, and age.

12.12 Corporate Business Principles

Our Corporate Business Principles form the basis of our culture, values, and CSV strategy. The Corporate Business Principles are reviewed by our Executive Board and aligned with international best practices and standards such as the UN Global Compact (UNGC) Principles. The ongoing implementation of relevant business codes, policies, processes, and tools ensures compliance. The principles are available in various languages, and we are formally committed to providing all employees with training. We are committed to transparency and action on climate-related risks and opportunities.

Our global stakeholder network includes local communities, suppliers, consumers, non-governmental organizations, civil society organizations, academia, multilateral organizations, governments, customers, employees, and shareholders. At TCI Sanmar, we hold regular dialogue with these stakeholders through various platforms, forums, and meetings to help advance our CSV strategy and to support our intention to advance systems. Stakeholder feedback also informs our approach to reporting and disclosure and underpins our materiality process.

TCI Sanmar is committed to enhancing collaboration with stakeholders, establishing an effective mechanism for public communication and engagement, responding promptly to community concerns, identifying, assessing, and resolving risks of conflict between communities and the company, and fully respecting the cultural customs and behavior of the local community while minimizing the impact on the local environment, ecology, and society.

The company attaches importance to the joint development of itself and the local community, actively responds to local development strategies, and fully uses its advantages to support economic and social development.



12.13 Community investments

TCI Sanmar works closely with the communities where we operate to identify and invest in initiatives that help support their needs. We collaborate with governments and local stakeholders to invest in programs that promote local economic growth and help improve social conditions.

12.14 Community impact strategy

Impact strategy is a process for planning, measuring, and attributing positive social change to an organization's work and actions for this reason we are focusing our assets to scale community impact and outcomes aligned with our purpose and core values as the following:



TCI Sanmar adds economic value to countries where we operate by employing and training local personnel and supporting local suppliers. We also build the capacity of local suppliers to increase their capabilities and work to create a competitive local industrial base. We develop a local content plan specific to each country or area to establish long-term economic benefits. Our development program includes training on relevant technical and vocational skills, health and safety, environmental protection, management skills, and business conduct. When we hire local employees, they may receive additional training to develop technical and leadership skills, improving their employability.

Below is an initiative by our side as TCI Sanmar is committed to building a solid base of a well-trained and skilled labor force that can enrich all the business and industrial community in Egypt, in line with the National Strategy for Sustainable Development (Egypt Vision 2030 and the National Program for Structural Reforms) which support the technical education and vocational training system that represents the main element supporting the link between education and the labor market.

12.5 TCI Sanmar CSV Sustainability Journey

12.5.1 TCI Sanmar Vocational Training Program

The program cooperated with the Arab Academy for Science, Technology, and Maritime Transport. It reflects TCI Sanmar's leadership in the technical and vocational training field in Port Said. It aimed at empowering youth with skills that enable them to adapt to labor market changes and demands.

We believe that quality education supports economic growth as a critical component of a country's human capital. It increases the efficiency of individuals and helps economies move up the value chain beyond manual tasks or simple production processes. We contribute significantly through education programs to enhance our skills and performance.

Our education initiatives increase human capital allowing individuals to secure jobs and provide better opportunities in the future.



12.5.2 The planting initiative

As trees grow, they help absorb and sink the carbon that would otherwise contribute to global heating. Planting trees can increase the resilience of ecosystems, help minimize climate change effects, and buy people and governments time to adapt to changing conditions.

Planting native seedlings in ecologically appropriate areas can counteract soil and biodiversity loss and improve human well-being. The project started in 2018 by planting 4000 trees in the area between the plant fence and Emirati housing area as part of CSR program. This year we increased the number of trees by planting 2000 Trees in the area between the plant and our neighbors in Emirati Housing residential area.



12.5.3 Polio vaccination campaign

TCI Sanmar sponsored the Polio vaccination campaign in Port Said from 19.12.2021 to 22.12.2021 under the auspices of H.E Minister of Health and Population and H.E Port Said Governor. The Objective is to contribute to the Ministry of Health (Egyptian Government) to improve health protection activities and the community's health awareness. This is part of the National vaccination campaign of Port Said, Egypt.

The vaccination campaign targeted 101,000 children from one day to five years old in Port Said.

The campaign covered Children in Port Said City, including the neighboring areas, the Emirate housing compound, and Kaboti.

We support printing flyers to include awareness about the children's vaccination time table from the date of birth.



Updating Our Key Performance Indicators

13.1 Key Performance Indicators

Key Performance Indicators (KPIs) are the critical (key) indicators of progress toward an intended result. KPIs provide a focus for strategic and operational improvement, create an analytical basis for decision making and help focus attention on what matters most. At TCI Sanmar, KPIs are regularly used to assess our performance. Our KPIs have the following characteristics:



	<p>Provide objective evidence of progress towards achieving a desired result</p>
	<p>Measure what is intended to be measured to help inform better decision making</p>
	<p>Offer a comparison that gauges the degree of performance change over time</p>
	<p>Tracks efficiency, effectiveness, quality, timeliness, governance, compliance, behaviours, economics, project performance, personnel performance, or resource utilization</p>
	<p>Are balanced between leading and lagging indicators</p>

13.2 New Key Performance Indicators

Our KPIs fall into four different categories with each category having its own characteristics, timeframe, and users.

Strategic KPIs

are the most high-level. These types of KPIs indicate how our company is doing, although it doesn't provide much information beyond a very high-level snapshot. Our executives use strategic KPIs, including return on investment, profit margin, and total company revenue.

Operational KPIs

are focused on a much tighter timeframe. These KPIs measure company progress month-over-month (or even day-over-day) by analysing different processes, segments, or geographical locations. These operational KPIs are used by managing staff to analyse questions that are derived from analysing strategic KPIs.

Leading/Lagging

KPIs describe the nature of the data being analysed and whether it is signalling something to come or signalling that something has already occurred.

Functional KPIs

are related to specific departments or functions within a company. For example, the Finance Department keeps track of how many new Contractors they register within their accounting information system each month, while the Marketing Department measures how many clicks each e-mail distribution received. These types of KPIs may be strategic or operational but provide the greatest value to one specific set of users.



13.2.1 Progress of implementation of the actions as well as monitor the impacts.

Mapping TCI Sanmar's Activities with ESG Frameworks



14.1 TCI Sanmar Sustainability Performance

Our planet faces massive economic, social, and environmental challenges. To combat these, the Sustainable Development Goals (SDGs) define global priorities and aspirations for 2030. They represent an unprecedented opportunity to eliminate extreme poverty and put the world on a sustainable path.

The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) were adopted by the General Assembly of the United Nations in September 2015. Sound management of chemicals and waste (SMCW) is a specific target under SDG 12 on Sustainable Consumption and Production. It is also referred to under SDG 3 on Good Health and Well-being and SDG 6 on Clean Water and Sanitation. However, given that chemicals and waste affect all aspects of development, SMCW is relevant for, and supports the implementation of, many of the SDGs, if not all. SMCW is therefore of significant relevance for implementing the 2030 Agenda for Sustainable Development. For example, goals and targets in food security, health, or sustainable cities can only be reached with SMCW. Upgrading industrial processes based on green chemistry principles can help achieve SDG 9 on Industry, Innovation, and Infrastructure. The other side of the SDGs/SMCW interface is equally important: Some SDGs, such as those addressing access to information, inclusive institutions, or justice and partnerships, help create an enabling environment that supports the minimization of the adverse effects of chemicals and waste.



For a better, more prosperous, and more sustainable future, the UN General Assembly adopted the 2030 Sustainable Development Goals Agenda in 2015. In tandem with the United Nations, we support the SDGs by responsibly producing, using, and managing chemicals. Moreover, we applied innovative technologies and methods to reduce adverse effects, safeguard the environment, advance social advancement, and foster economic growth to speed up sustainable progress.

The past years have been challenging for sustainability in many respects, but there have also been exciting developments in the sustainability landscape. We look back at our efforts in mainstreaming the UN's 17 SDGs in the Company's Business Functions. Aligning corporate goals, both short term and long term with the relevant SDGs. Mainstreaming SDGs in business functions. Sharing our sustainability performance publicly through GRI sustainability reports and encouraging others to do the same.






14.2 SDGs and Egypt’s Vision 2030 (Sustainable Development Agenda)

The following table links the Sustainable Development Goals (SDGs) to GRI standards relevant disclosures/ indicators, UNGC principles and TCI Sanmar’s contribution.

	UNGC Principles	GRI Disclosures/ indicators	TCI Sanmar’s contribution
	UNGC Principle #1,2,3,4,5,6	GRI 103-2, 202-1, 203-2, 413-2	<p>NO POVERTY</p> <p>We offer equitable salaries and wages that suffice not only the employees’ basic needs but also more for a better, and fairer environment. Moreover, the industry provides most of the equipment and services from computers, laptops, and transportation, not to put financial burden on the employees for a sustainable livelihood.</p>
	UNGC Principle #1,2,7,8,9	GRI 201-1, 203-1, 203-2, 411-1, 413-2	<p>ZERO HUNGER</p> <p>We enforce our commitment to the second goal by paying decent salaries and wages which guarantees that all the basic needs of our employees are covered. In addition, we are committed to paying taxes monthly for the government to promote the availability of food for people living in extreme poverty.</p>
	UNGC Principle #1,2,3,4,5,6,10	GRI 203-2, 305-1, 305-2, 305-3, 305-6, 305-7, 306-1, 306-2, 306-3, 306-4, 403-2, 403-3	<p>GOOD HEALTH AND WELL BEING</p> <p>The health and wellbeing of the workforce are highly valued in our chemical sector. We try to lessen the negative impacts of chemical exposure at work, at home, and in the neighborhood. The availability of products with advantages for health and safety and a reduction in the adverse effects on the environment has improved thanks to production management and innovation. To ensure that there are no risks at work, our Health and Safety Department is efficiently managed. Additionally, we make sure that everyone who works for us is in a safe, healthy atmosphere where their bodily and emotional health is not in danger.</p>



			<p>In the event of injuries, first aid is administered before the injured individual is transferred to the closest hospital. We make sure that all of our workers have access to health insurance. Moreover, during the Covid-19 pandemic, our industry assured to offer good hygiene for all employees by offering working from home policy as well as keeping social distancing.</p>
	<p>UNGC Principle #1,2</p>	<p>GRI 102-27, 404-1</p>	<p>QUALITY EDUCATION</p> <p>We consider high-quality education to be an essential part of our nation's human capital and a supporter of economic prosperity. It boosts people's productivity and aids in moving economies up the value chain beyond manual labor or straightforward manufacturing.</p> <p>We make a significant contribution by educating and training our staff to improve their abilities and output. By doing so, we broaden their expertise and pave the way for more original ideas, increase revenue growth and create new opportunities for innovation. In addition, we offer university students summer training programs to help them strengthen their skills in order to pursue successful careers.</p> <p>Through our training programs, we promote the professional and personal development of the trainees. Our educational efforts boost human capital, enabling people to find employment and create greater future chances. Some sizable portions of our CSR efforts are focused on education because we understand the value of high-quality education for society.</p>
	<p>UNGC Principle #1,2,3,4,5,6</p>	<p>GRI 103-2, 201-1, 203-1, 401-1, 401-3, 404-1, 404-3, 405-1, 405-2, 406-1, 414-1, 414-2</p>	<p>GENDER EQUALITY</p> <p>At TCI Sanmar, we focus on discouraging gender inequality by investing in policies to end all forms of discrimination. Moreover, we provide women with equal job titles while ensuring a fair working environment for them.</p>



UNGC
Principle
#1,2,7,8,9

GRI 303-1,
303-
2, 303-3,
304-1,
304-2, 304-3,
304-4, 306-1,
306-2, 306-3,
306-5

CLEAN WATER AND SANITATION

Chemistry advancements that support clean water and sanitation include desalination materials, disinfectants that kill germs and prevent disease, polymer membrane filters that remove impurities, and materials for pipelines that protect water from its source to the tap. Our manufacture of PVC and chlorine helps to make the chlorinated water disinfectants that keep drinking water safe while being delivered and stored.

PVC is utilized in a wide range of piping applications, including the delivery of drinking water, drainage systems, and sophisticated fire-sprinkler systems. Due to their prominent level of inertness and corrosion resistance, these pipes are an excellent option for the safe conveyance of drinking water. Therefore, PVC pipes are free of biofilm contamination, which could serve as a breeding ground for germs.

PVC pipes contribute to the provision of clean water, which is good for everyone's health. 2015 saw the end of the replacement of lead-based stabilizers in brand-new PVC compounds. PVC is a functional barrier that prevents any low molecular weight compounds from migrating to drinking water since it is employed below its glass transition temperature (80°C). Migration tests have shown migration levels that are well below the analytical techniques' detection threshold.

Additionally, PVC pipes' ultra-smooth surface lowers energy and pumping expenses, and its leak-proof fittings stop water loss. Both the environment and the power bill will benefit from this. We support water management systems because they improve water quality by lowering pollution, doing away with incorrect disposal, decreasing the release of dangerous chemicals and materials, lowering the amount of untreated wastewater, and promoting recycling and safe reuse.





Last but not least, we aim for two innovative zero liquid discharge plants that show about 80% water recycling throughout production, resulting in little water being sent to the sewer network. TCI Sanmar made the strategic choice to rely on the ZLD Systems to continue running its business in Egypt, a country with a severe water shortage.

UNGC
Principle
#1,2,7,8,9

GRI 201-1, 203-1, 302-1, 302-2, 302-3, 302-4, 302-5

AFFORDABLE CLEAN ENERGY:

We are committed to reduce our emissions by monitoring and reducing the energy consumption moreover, we use more advanced equipment that depend on clean energy to attain a clean and safe environment.

Green power energy generation (Photovoltaic cells & Steam microturbines):

(Green/sustainable Process)

“This is a critical step on the path to proliferate renewable energy and get to a fully decarbonized grid.”



There is definitely a substantial net positive here in terms of sustainability. The technology is safe, environmentally benign in its life cycle, and can have a tremendous impact on abating carbon dioxide emissions from electricity production.

Steam Microturbines, Steam turbines use steam to produce electricity independently from the heat source. No emissions are associated with the technology itself.



Steam turbines are a core element of thermal-based renewable power generation, such as concentrated solar power, geothermal or biomass power plants, as well as waste-to-energy power plants. Steam turbines have been the industrial standard for converting such heat sources into electricity with low carbon emissions.

Steam turbines offer cost-effective, dispatchable, and carbon-neutral power – ensuring the grid's stability and supply security.




			<p>Photovoltaic cells, the system would absorb excess energy from renewable sources and store that energy in heavily insulated banks of hot graphite. When energy is needed, PV cells convert the heat into electricity and dispatch the energy to a power grid.</p> <p>They can operate at higher temperatures with lower maintenance costs because they have no moving parts; they sit there and reliably generate electricity. We can get high efficiency.</p>
	<p>UNGC Principle #1,2,3,4,5,6</p>	<p>GRI 102-8, 102-41, 103-2, 201-1, 202-1, 202-2, 203-2, 301-1, 301-2, 301-3, 302-1, 302-2, 302-3, 302-4, 302-5, 303-3, 401-1, 401-2, 401-3, 402-1, 403-1, 403-2, 403-3, 403-4, 404-1, 404-2, 404-3, 405-1, 405-2, 406-1, 407-1, 408-1, 409-1, 414-1, 414-2</p>	<p>DECENT WORK AND ECONOMIC GROWTH:</p> <p>Providing jobs, contribution to the Egyptian economy and supporting local contractors. By ensuring that everyone has access to adequate employment opportunities, we promote sustainable and inclusive economic growth. Innovation offers business opportunities and a long-term base for international growth. The administration of TCI Sanmar ensures that all workers receive fair compensation that is beyond the minimum wage, ensuring a high standard of living for all TCI Sanmar personnel.</p>
	<p>UNGC Principle #3,4,5,6,7,8,9</p>	<p>GRI 201-1, 203-1</p>	<p>INDUSTRY, INNOVATION & INFRASTRUCTURE:</p> <p>We are improving our production assets to encourage robustness. The administration makes sure that resource and environmental concerns are addressed, that the costs of disposing of waste and raw materials are reduced, more money is made from leftovers and byproducts, that circular business models are supported, and opportunities for business growth are created.</p> <p>We cooperate with various industries in Egypt to maintain a well-developed infrastructure solution. To further encourage open innovation and industrial breakthroughs, we support the development of integrated and end-to-end models.</p>







			<p>Additionally, our research and development team are in charge of preserving and adapting the most recent technological models to ensure their utilization during the production process. Our waste management practices are designed to benefit the populace while having the least negative impact on the environment possible.</p>
	<p>UNGC Principle #1,2,3,4,5,6,10</p>	<p>GRI 203-2, 405-2</p>	<p>REDUCE INEQUALITIES:</p> <p>Responsible Care protects wellbeing of all people involved with the company's business; Sharing expertise with all industry regardless of size or position; equal employment opportunities.</p> <p>At TCI Sanmar, we provide just, equitable and fair treatment to all our employees. We do not differentiate between employees and offer suitable wages for each and every one based on their skills not on their background. Moreover, we have fixed working hours that satisfy people of different ages. We also have policies that guarantee the right of all people irrespective of age, sex, disability, race, ethnicity, origin, and religion.</p>
	<p>UNGC Principle #1,2,7,8,9</p>	<p>GRI 203-1</p>	<p>SUSTAINABLE CITIES AND COMMUNITIES:</p> <p>our Long-Term Sustainability Goals are in line with Egypt's Vision 2030. Egypt has shown drastic change in the infrastructure since 2015. Exemplified in the improved transportation systems that facilitate the movement of people. We encourage such change and ensure that all our employees have access to safe and affordable means of transportation to reach the office. Moreover, to support sustainable cities and communities, part of our CSR budget is dedicated to rebuilding houses.</p>
	<p>UNGC Principle #7,8,9</p>	<p>GRI 204-1, 301-1, 301-2, 301-3, 302-1, 302-2, 302-3, 302-4,</p>	<p>RESPONSIBLE CONSUMPTION & PRODUCTION:</p> <p>Resource efficiency; Energy conservation and efficiency, high on-stream factor resulting in less venting and flaring. Maintaining air and water quality.</p>



		<p>302-5, 303-3, 305-1, 305-2, 305-3, 305-6, 305-7, 306-1, 306-2, 306-3, 306-4, 417-1</p>	<p>We produce PVC, the main raw material used to make reusable PVC cables. Recycling PVC contributes to national environmental preservation efforts and resource sustainability goals. PVC recycling can reduce carbon dioxide emissions by up to 92 percent as it uses between 45 and 90 percent less primary energy than producing new PVC (depending on the kind of PVC and the recycling process).</p> <p>Additionally, it is plausible to assume that recycling PVC reduces CO2 emissions by 2 kg every kg recycled. We are dedicated to reducing waste in a sustainable manner while also minimizing its damaging effects on the environment. In order to create more sustainable plans, we are now performing LCA surveys to find hotspots that could have an impact on the operating environment. For its flagship product PVC, the Life Cycle Assessment Survey is also used to register and publish the EPD, the first environmental product declaration</p>
	<p>UNGC Principle #7,8,9</p>	<p>GRI 201-2, 302-1, 302-2, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7</p>	<p>CLIMATE ACTION:</p> <p>Through a variety of initiatives, such as increased energy efficiency, smaller product footprints, and the development of creative downstream emission reduction strategies, we continue to make heroic efforts to address climate change. We are committed to minimizing waste and the harmful effects it has on the environment in a sustainable way, which is why we are concentrating on producing LCA and EPD studies for PVC, our main product. PVC can help all nations become more resilient and better prepare for natural disasters and risks associated with the environment.</p> <p>It takes less primary energy during the creation stage than other polymers since it is a naturally "low carbon" plastic (only 38% of its molecular mass is carbon, the remainder being chlorine and hydrogen). PVC cables outperform other materials in terms of energy usage and corresponding CO₂ emissions, according to LCA studies.</p>



			<p>Continuously increasing recycling and reuse and encourage recycling; currently underway with several optimization projects around sustainable resource efficiency. Sustainability Reporting and advocating it as part of target 12.6.</p> <p>The chemical products we produce help several industries increase the effectiveness and quality of their manufacturing operations. Chemicals have improved energy efficiency and promote water stewardship initiatives across a variety of sectors and regions.</p>
	<p>UNGC Principle #7,8,9</p>	<p>GRI 304-1, 304-2, 304-3, 304-4, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7, 306-1, 306-3</p>	<p>LIFE BELOW WATER</p> <p>Our industry preserves the ecosystem by reducing the CO2 emissions through using disposable plastic bags and cups, managing to purchase recyclable products to avoid harming the marine creatures and most importantly adopting a method that prevents the disposition of our chemical residues in the water.</p>
	<p>UNGC Principle #7,8,9</p>	<p>GRI 304-1, 304-2, 304-3, 304-4, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7, 306-3, 306-5</p>	<p>LIFE ON LAND</p> <p>We ensure the conservation and sustainable use of terrestrial and inland freshwater ecosystems in line with obligations under international agreements. The industry acknowledges the significance of sustainable use of terrestrial and inland freshwater ecosystems for a sustained biodiversity.</p>
	<p>UNGC Principle #1,2,3,4,5,6,10</p>	<p>GRI 102-16, 102-17, 102-21, 102-22, 102-23, 102-24, 102-25, 102-29, 102-37, 103-2, 205-1, 205-2, 205-3, 206-1, 307-1, 406-1, 408-1, 410-1, 414-1, 414-2, 415-1, 416-2, 417-1, 417-2, 418-1, 419-1</p>	<p>PEACE JUSTICE AND STRONG INSTITUTIONS</p> <p>Aligned with human rights and labor laws.</p> <p>We are committed to reduce corruption and bribery in all their forms, develop effective, accountable, and transparent institutions at all levels, promote and enforce non-discriminatory laws and policies for sustainable development and ensure responsive, inclusive, participatory decision making at all levels. In line with our commitment, we provide anti-corruption training to all our employees to ensure that we maintain an ethical workplace.</p>

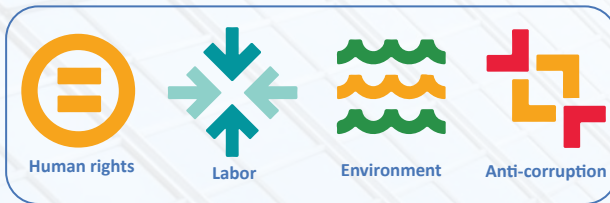


	<p>UNGC Principle #1,2,3,4,5,6,7,8 ,9,10</p>	<p>GRI 203-2</p>	<p>PARTNERSHIPS FOR THE GOALS</p> <p>We recognize that partnerships are integral to the achievement of the SDGs. We accelerate our efforts through our strategic partnerships</p> <ul style="list-style-type: none"> ▶ Implement all development aid pledges ▶ Work together with parties interested in sustainable development, including downstream partners, government agencies, non-governmental organizations (NGOs), and others. ▶ Use capacity building to improve Egypt's performance in terms of safety and the environment. ▶ Create multi-stakeholder, cross-border alliances, and agreements with various international organizations. ▶ Encourage openness and innovation across the sector.
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14.3 The Power of UNGC Principles

Corporate sustainability starts with a company's value system and a principles-based approach to doing business. This means operating in ways that, at a minimum, meet fundamental responsibilities in the areas of



Responsible businesses enact the same values and principles wherever they have a presence and know that good practices in one area do not offset harm in another. By incorporating the Ten Principles of the UN Global Compact into strategies, policies, and procedures, and establishing a culture of integrity, companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success.

14.4 Aligning with IFC performance Standards

The IFC performance standards set a framework that can help identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way. At TCI-Sanmar, we mapped our each of the 8 performance standards against objectives and focus areas.

performance standards	Objectives	Focus Area
PS1: Assessment and Management of Environmental and Social Risks and Impacts 	<ul style="list-style-type: none"> ▶ Identify project E&S risks and impacts ▶ Adopt mitigation hierarchy ▶ Anticipate, avoid ▶ Minimize ▶ Compensate or offset ▶ Improve performance through an Environmental and Social Management System (ESMS) ▶ Engagement with Affected Communities, other stakeholders ▶ Throughout project cycle ▶ Includes communications, grievance mechanisms 	<ul style="list-style-type: none"> ▶ Corporate Social Responsibility ▶ Learning and Growth Economic Sustainability ▶ Business Process Excellence



<p>PS2: Labor and Working Conditions</p> 	<ul style="list-style-type: none"> ▶ Fair treatment, non-discrimination, equal opportunity ▶ Good worker – management relationship ▶ Comply with national employment and labor laws ▶ Protect workers, in particular vulnerable categories ▶ Promote safety and health ▶ Avoid use of forced labor or child labor 	<ul style="list-style-type: none"> ▶ Protection of Human rights, Health, and Safety ▶ Good governance
<p>PS3: Resource Efficiency and Pollution Prevention</p> 	<ul style="list-style-type: none"> ▶ Avoid, minimize, and reduce project-related pollution ▶ More sustainable use of resources, including energy and water ▶ Reduced project-related Greenhouse Gas (GHG) emissions 	<ul style="list-style-type: none"> ▶ Reduce Green House Gas (GHG) emission levels ▶ Optimize energy consumption so that every saleable ton of product is attained within the target level of energy consumption ▶ Increase recycle / Reuse of wastewater streams ▶ Implementation of the related Solar Energy ▶ Implementation of the related renewable resources
<p>PS4: Community Health, Safety and Security</p> 	<ul style="list-style-type: none"> ▶ To anticipate and avoid adverse impacts on the health and safety of the affected community ▶ To safeguard personnel and property in accordance with relevant human rights principles 	<ul style="list-style-type: none"> ▶ Explore all opportunities to enhance production process and outcome
<p>PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p> 	<ul style="list-style-type: none"> ▶ Protection and conservation of biodiversity ▶ Maintenance of benefits from ecosystem services ▶ Promotion of sustainable management of living natural resources ▶ Integration of conservation needs and development priorities 	<ul style="list-style-type: none"> ▶ To ensure Compliance to Environmental Legislation



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G102-41	Collective bargaining agreements	We have no collective bargaining agreements

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303-5	Water consumption	Page 61
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas.	TCI Sanmar is not located in protected areas
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305-2	Energy indirect (Scope 2) GHG emissions	Page 60
305-4	GHG emissions intensity	Page 60
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G405-2	Ratio of basic salary and remuneration of women to men	No salary discrimination based on gender
G406-1	Incidents of discrimination and corrective actions taken	No incidents of discrimination took place
G408- 1	Operations and suppliers at significant risk for incidents of child labor	Page 92
G409- 1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Page 33

G 413-2	Operations with significant actual and potential negative impacts on local communities	Operations have no significant impact on local community
G 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No incidents of non-compliance
G 417-3	Incidents of non-compliance concerning marketing communications	No incidents of non-compliance
G 418-	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No incidents of breach of customer privacy and losses of customer data

Independent Assurance Statement

**To the Board of Directors
TCI Sanmar Chemicals S.A.E.**

Introduction

Dcarbon is a local Egyptian sustainability and environmental consultancy firm registered under Egyptian law no. 159 for the year 1981 and its executive regulation. Dcarbon is a certified training partner to the Global Reporting Initiative (GRI), and a GRI Gold Community member. Our focus is to assist public and private organizations in understanding and addressing their economic, environmental, and social impact.

TCI Sanmar for Chemicals (the 'Organization') requested from DCarbon to perform an independent assurance on its sustainability reporting process ('the Report'), to satisfy the requirements of the GRI reporting Standards **Core option**.

Scope, Boundary, and Limitations

The scope of assurance covers data and information between of 01 April 2021 to 31 March 2022 for operations in Egypt, based on Global Reporting Initiative's (GRI) Standards; Core option.

Economic, Social, and Environmental impacts of Material Topics raised by stakeholders, either through the organization's own activities or because of business relationships across its value chain, were identified. The reporting boundary covers impacts directly linked to the organization's business operations, products, and services produced, as well as impacts that are indirectly related to the organization's business relationships with business partners, entities in its value chain, CSOs, and State entity where applicable.

Assurance scope excludes:

- Data and information in the Report outside this reporting period indicating looking-forward statements by the TCI Sanmar.
- Verification statements indicating testimonials, opinions, success stories, and/or aspirations.
- Verification of claims (limited to data and information presented).

Assurance procedures

Back-end reviews and data compilation were initially conducted by DCarbon's assurance team, listed below, then verified and assessed by DCarbon's Team of Experts. The assurance included DCarbon's multidisciplinary independent team of experts in auditing environmental, social, and economic information and abiding by our values of integrity, confidentiality, professional competence, objectivity, and due attention.

The nature, timing, and extent of the procedures selected depended on our engagements with the organization, the data provided, and the approval of TCI Sanmar's Sustainability Governance Body delegated by the Board of Directors. Assurance activities included procedures to obtain evidence about the reliability of the disclosures:

- Review of internal policy, procedures, and other documents as provided by the organization.
- Review of materiality and stakeholders' engagement framework deployed at the organization.
- Assessment of the systems used for data collection and reporting of the standard, including data collection and/or writing prompts, where applicable or available.
- Evaluation of the processing and monitoring of data collection for disclosures.
- Assessment that the report has been prepared in accordance with GRI Standards: Core option.
- Review of the Report to ensure that there is no misrepresentation of disclosures as per the scope of assurance and our findings.

Limited Assurance was obtained regarding the disclosures covering governance, stakeholders' engagement practices, materiality assessment, the scale of the organization, products, and services, market presence, employee well-being, and management approach of activities under social investments, environmental footprint, and procurement practices.

We advise stakeholders to review the financial performance report for assurance of other standards of practice.

Assurance Team

The assurance was conducted by a multidisciplinary independent team headed by the lead report editor Dr. Nasser Ayoub, Senior sustainability analyst Mahmoud Amr, and researchers for auditing environmental, social, and economic information and abiding by our integrity and confidentiality values, professional competence, objectivity, and due attention.

Conclusion

We have reviewed the Sustainability Report of TCI Sanmar for Chemicals. Considering the risk of material error, we received necessary explanations from the organization to support sufficient evidence to our assurance conclusion. Based on the activities performed and evidence received, in our opinion, TCI Sanmar has complied, in all material respects, in accordance with the GRI Standards for sustainability reporting criteria: core option.

Dr. Nasser Ayoub
Life-Cycle Assessment Expert
Lead Report Auditor





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