



Sustainability Report FY2022

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1. ABOUT THE REPORT



Figure 1: CIL Facility- Sodium Hypochlorite Unit

This is Chemical Industries (Far East) Limited's ("**CIL**") fifth Sustainability Report ("**Report**"), which represents our continuous commitment in building a sustainable business in the long run. This data-driven report will cover all Singapore operations of CIL as a manufacturer of basic chemicals, in particular the Sakra CIL chlor-alkali production plant located in Jurong Island, for the financial year of 01 April 2021 to 31 March 2022 ("**FY2022**").

The Report has been prepared in accordance with the Global Reporting Initiative Sustainability ("**GRI**") Reporting Standards ("**GRI Standards**"): Core option. The GRI Standards were chosen due to their reputation as an internationally recognised standard for reporting Environmental, Social, and Governance ("**ESG**") issues.

This Report's content and material ESG topics were defined by applying the following four reporting principles established in the GRI Standards:

• Stakeholder Inclusiveness

The content and context of this Report were determined through internal discussions within management and engagement with our various stakeholders. This ensures comprehensive coverage of the expectations and interests of all stakeholders.

• Sustainability Context

Our business operations and performance were presented in the context of ESG landscape requirements at the local, regional, and global levels.

• Materiality

The material issues disclosed in this Report were identified through internal discussions and reviewed by the management. These selected topics were determined to have the most significant impact on our business.

• Completeness

This Report covers various aspects of the material topics, including implications, initiatives, and boundaries of data points, within the reporting period.

The Report also references the Sustainability Accounting Standards Board ("**SASB**") chemical sectorspecific standards. The SASB standards were chosen to incorporate better identification, management, and communication of financial-material sustainability information. The full GRI and SASB indexes may be found at the end of this Report for an overview of CIL's approach towards appropriate disclosure in accordance with the two standards.

While this Report has not undergone external assurance, due care has gone into the disclosure of information presented in this Report. We will review our policy on Sustainability Reporting assurance for future releases.

Contact Us

CIL values the opinions of all its stakeholders. We welcome suggestions and feedback on how we can improve our Sustainability Reporting and sustainability practices through contacting:

chemical.ind@cil.com.sg

[Publication] Date: [31 August 2022]

2.1. OUR BOARD STATEMENT

Dear Stakeholders

The Board of Directors (the "**Board**") is pleased to present this Sustainability Report ("**Report**") to illustrate our sustainability efforts and initiatives. This Report represents CIL's commitment to sustainability, as well as to our clients, team members, and the communities where we reside. As a prime supplier of basic chemicals to the petro-chemical, pharmaceutical, electronics, and water-treatment industries, we play an integral role in contributing to the environmental and social well-being of the communities where we operate in.

Anchoring sustainability as one of our long-term strategies, we have set for ourselves the vision to be the premier sustainable chemical solutions company in the region. We aim to be a responsible business that is committed to being environmentally responsible, maintaining high standards of governance and ethics, developing our talent pool, and rigorously planning for our future.

Creating Sustainable Value

Given the rapidly changing business environment, the industrial chemicals business continues to operate amidst competitive conditions with more intense price competition. To address these challenges, CIL is broadening the scope of our product offerings and looking for fresh growth prospects. Our strategies have borne results as evidenced by our reported robust economic performance for FY2022 despite the prolonged pandemic challenges.

As of 31 March 2022, CIL's revenue increased by \$22 million from \$63 million in FY2021 to \$85 million in FY2022, mainly due to an improvement in sales of CIL's core chlor-alkali products. Despite the increase in sales, CIL reported a lower net profit before tax of \$5.8 million in FY2022 compared to \$6.8 million in FY2021. This was mainly due to higher energy costs arising from an increase in energy rates, as well as an additional impairment loss on property, plant, and equipment of \$6.2 million recognised in the books of our Myanmar subsidiary in the current financial year.

We are committed to maintaining corporate accountability and transparency throughout our business while maintaining financial growth and sustainable ESG performance.

CIL is fully compliant with applicable environmental laws and regulations throughout our operations. We are also happy to share that we have fulfilled all customer orders in FY2022 without significant disruption.

Moving Forward Towards A Sustainable Future

Amid global economic challenges, we continue to make progress in our environmental and social sustainability journey. Stakeholders may refer to our various achievements set out in Chapter 3.1 of this Report, with further elaboration in Chapter 4 of this Report on Our Sustainability Focus.

Moving forward, we will continue to build a robust and sustainable business that excels both in performance and sustainability. Through the publication of this Report, we hope to receive your

continuous trust and support in our journey to integrate sustainability as one of the core pillars of our business strategy and create long-term value for all our stakeholders.

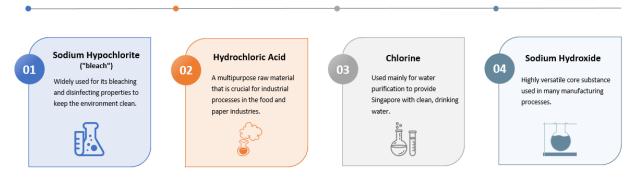
Yeo Hock Chye, Independent Non-Executive Chairman,

on behalf of CIL's Board

2.2. COMPANY OVERVIEW

Since 1963, CIL has been Singapore's sole producer of chlor-alkali products consisting of chlorine, sodium hydroxide, and other chlor-alkali elements. To support Singapore's key economic sectors such as her petrochemical, pharmaceutical, electronics, and water treatment industries, we provide four essential products: sodium hypochlorite, hydrochloric acid, chlorine, and sodium hydroxide. On the national level, we have been supporting every stage of Singapore's journey towards water independence by providing key chemicals for the city state's water purification processes.

As of 31 March 2022, we had 154 employees at CIL.





CIL's primary chlor-alkali manufacturing facility is situated on Jurong Island. It was established in 1998, and it has been highlighted as an industry best-practice facility at international chlor-alkali conferences for its application of cutting-edge technologies. Our headquarter is located at Jalan Samulun and serves as a storage and business continuity site for CIL's chlor-alkali business. To date, CIL supplies chemicals to 9 markets.

Our subsidiary, Chem Transport Pte Ltd, handles all our logistics for CIL. As a manufacturer, we have a completely integrated logistics operation that provides us full oversight, from product manufacturing to delivery.

Our other active subsidiaries include Chemical Industries (Myanmar) Limited which operates in Myanmar and is the only manufacturer in Myanmar to produce sodium hypo chlorite, and Juta Properties Private Limited which is CIL's real estate arm.



⁶ CHEMICAL INDUSTRIES (FAR EAST) LIMITED SUSTAINABILITY REPORT FY2022



Figure 3: Sakra CIL chlor-alkali production plant/ Samulun CIL Logistic Base

2.3. OUR BUSINESS PURPOSE

At CIL, we aim to maximise value for our stakeholders and business in the chemical manufacturing industry. To maintain our competitiveness and provide cutting-edge industrial chemical solutions in the areas we serve, we leverage on three fundamental advantages set out below that are emphasized with trust and quality.



Figure 4: CIL's Fundamentals

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3. SUSTAINABILITY AT CIL

3.1. SUSTAINABILITY ACHIEVEMENT IN FY2022

	100% completion rate in occupational health and safety targets
	- We achieved 100% completion rate of regulation briefing for employees,
$\left(\left(\right) \right)$	contractors, and subcontractors on a yearly basis.
((1))	- We achieved 100% completion rate of Emergency Response Plans briefing for
	supervisors, foremen and process technicians on a yearly basis.
	Aerial Concentrations of Pollutant Compounds Remain Below Regulatory Emission
	Limits
	- We ensured that aerial concentrations of pollutant compounds that include
(2)	hydrogen chloride, ammonia and ammonium compounds, chlorine, oxides of
	nitrogen, and carbon monoxide at plant exhaust points were kept within the
	Emission Limits of Standards of Concentration of Air Impurities ¹ .
	Launch of Energy Initiatives plan: Solar Panel
$\left(\bigcap \right)$	- We launched our energy savings initiative and have commissioned the
	installation of solar panels to produce green renewable energy for our energy
	consumption needs. Installation of the solar panels is estimated to be completed
	by 2023 and will have a generation capacity of 1,295,737kwh annually. This will
	form a pivotal part of our sustainable business strategy.
\frown	Monitoring of Green House Gas ("GHG") Emission
	- From FY2022, we will disclose our emission data for scope 1 and scope 2
	emissions. The total scope 1 and scope 2 emissions in FY2022 was 49,519.89 MT
	of CO2e. We will continue to monitor and reduce our emissions levels in the
	coming year to ensure that our GHG emissions reduction efforts remain
$\left(\frown \right)$	effective.
	Amount of Chlorine Detected in Plant Boundary Remains Below Regulatory Emission
$\left(5 \right)$	Limit
	- Due to our strict controls to prevent chemical leaks from our operational plant
	into the surrounding areas, we are able to adhere to the chlorine limit set by the
	Singapore Civil Defence Force ("SCDF") of 10ppm. We have maintained this
	environmental standard since we built the Sakra CIL plant in 1998.
$\left(\begin{array}{c} 6 \end{array} \right)$	Zero work-related fatalities and high-consequence injuries recorded
	- With the sound management system in place, we report a decrease in three
	work-related injuries this year, as compared to the last financial year. There were
•	2 work-related injuries where employees tripped and fell. The total recordable
	incident rate in FY2022 was 1.75. CIL performed a risk assessment review and
	provided training to our employees to reduce the likelihood of future
	occurrences.

Figure 5: Sustainability Achievement in FY2022

¹ As stipulated under the *Environmental Protection and Management Act (Air Impurities) Regulations*, 2008 and the *Environmental Protection and Management (Air Impurities) (Amendment) Regulations*, 2015.

3.2. MATERIALITY PRIORITISATION

A materiality assessment was conducted in FY2020 with our Management to identify material ESG topics that are most significant to our business and stakeholders. The Board identified and endorsed eight material topics for CIL's Sustainability Report disclosures. In FY2022, we have mapped our disclosures to both GRI 2021 and SASB Sector Standards in accordance with the best practices of double materiality recommended by SGX.

We assess these topics annually to make sure they remain relevant in the ever-changing operational environment. The Board affirms that in FY2022, the eight material topics set out below continue to be pertinent to our business and stakeholders.

	Materiality topics	Targets in FY2023
Economic topics	1. Economic Performance	 Growth is one of the key pillars of our corporate strategy to ensure that we continue to move up the profitability spectrum. We will review our manufacturing footprint as well as explore downstream production opportunities. We will also grow our trading business and focus our efforts on key industrial segments. We will explore collaboration and strategic alliance opportunities as an avenue to expand our businesses.
	2. Anti-Corruption	 Governance is an important aspect of the Sustainability pillar of our strategy. To this end, we remain unwavering in our commitment to maintaining zero corruption and fraud incidents across CIL's operations.
Environment topics	3. Energy	 Protecting the environment is an essential element of the Sustainability pillar of our strategy. As such, CIL is committed to obtaining around a 50-kilowatt reduction in specific energy consumption metric ton of sodium hydroxide produced. The above relates to 2% energy saving per metric ton of sodium hydroxide produced in the coming financial year as compared to the current year.

		 CIL aims to reduce GHG emissions by 1,000 t CO₂ e by electrolyser recoating and energy efficient operation. We will also continue to monitor and manage our energy consumption in the following years and identify opportunities for further reduction.
	4. Water	 As mentioned above, protecting the environment is an essential element of the Sustainability pillar of our strategy. Therefore, the CIL will continue to recycle and reuse water during the manufacturing process via water-saving initiatives. We strive to obtain a reduction of water index to 7.02 from 7.39 per metric ton of sodium hydroxide produced in the coming financial year, as compared to the current year.
	5. Environmental Compliance	 CIL will continue to ensure that we are in 100% environmental compliance with all applicable local government laws and regulations.
	 Occupational Health & Safety 	 CIL will strive to maintain its zero-staff permanent disability or fatality record. CIL will continue to protect our employees' health and safety and aim to reduce the rate of work-related injuries from 1.75 to 1.50.
Social topics	7. Freedom of Association and Collective Bargaining	 CIL will ensure that all of its employees are treated fairly. CIL has improved its employee health insurance policy to enhance medical and dental benefits. CIL has implemented performance-based evaluation and compensation regimes for our employees. CIL will continuously improve the employee wellbeing.
	8. Local Communities	 CIL will ensure to be recognised as a valuable corporate citizen and make every effort to operate responsibly in our local communities.

Figure 6: Materiality Targets in FY2023

3.3. SUSTAINABILITY PILLARS

We identified eight material topics based on four value creation pillars to effectively communicate our sustainability commitments - Marketplace, Environment, People and Community. These pillars guide our

| 11 CHEMICAL INDUSTRIES (FAR EAST) LIMITED SUSTAINABILITY REPORT FY2022 efforts in developing policies and actions to keep us on the path towards sustained business growth that delivers a positive impact on the planet we live in.



Figure 7: Sustainability Pillars

ENVIRONMENT

Protect the environment

- Environmental Compliance
- Energy and Emissions
- Climate Change
- Water and Effluents
- Solid Waste Management

COMMUNITY Build better communities

Local Community

3.4. STAKEHOLDER ENGAGEMENT

CIL believes constant dialogue with stakeholders is key to achieving sustainable business success. We foster and build trust with the key stakeholders through proactive two-way communication to better understand and address their concerns, thus building an impactful partnership.

Transparent and consistent information flow is essential for developing partnerships based on trust. At CIL, we achieve effective stakeholder engagement through various channels. The table below sets out the methods of engagement specific to each stakeholder group, as well as the frequency of such engagement efforts.

Mode of Engagement	Frequency of Engagement
Compliance reviews and audits	As and when needed
Electronic communications	Periodically
Supplier performance feedback	Annually
Board meeting	Periodically
	Compliance reviews and audits Electronic communications Supplier performance feedback

Management	Management meeting	Monthly
İİİ	Performance appraisal	once per year
Employees	Staff meetings	Monthly
	Electronic communications	When CIL is contacted
Shareholders	Annual general meeting	Annually
Labour Unions	Collective agreement	Every 2 to 3 years
Customers	Verbal and electronic communications	Ad-hoc or daily

Figure 8: Stakeholder Engagement

4. OUR SUSTAINABILITY FOCUS

4.1. MARKETPLACE

Towards Sustainable Value Creation

CIL strives to balance environmental and social positivity with business success. In order to make sound business decisions as an ethical and responsible firm, we actively seek opportunities that will put us in a position for sustainable growth.

In order to achieve this, we consider two main aspects:

- 1. Economic Performance
- 2. Anti-Corruption



Creating Enduring Economic Performance

CIL aims to strengthen our economic performance year-on-year by continually offering safe and highquality chemical products to a growing customer base. This allows us to meet the expectations of our shareholders, while simultaneously pursuing social and environmental improvements across other material aspects of our business. For detailed information regarding CIL's audited financial results for FY2022, please refer to the following sections in our 2022 Annual Report:

- Operating and Financial Review
- Statements of Financial Position



Figure 9: Sodium hydroxide Storage



Figure 10: Hydrochloric Acid Storage

Enforcing Anti-Corruption Practices

We believe that any violation of relevant anti-corruption laws can potentially lead to criminal penalties and reputation harm to the company. CIL's corporate culture places a high focus on maintaining business integrity. In all of our business dealings and relationships, we make an effort to preserve the confidence and trust of our stakeholders. CIL commits to no-corruption practice by prohibiting its employees from receiving bribes, gifts, and other benefits from external parties. Our employees are prohibited from financing and conducting criminal activities, fraud, and other forms of dishonesty. We take a 'zerotolerance' approach to all types of corruption, bribery, and extortion.

We have both an internal and external whistleblowing policy to provide employees and external parties with a channel to raise concerns and pass on information to our top management.

The policy encompasses the protection of anonymity, where the whistleblower's identity and other interests are safeguarded without fear of reprisal, retaliation, discrimination or harassment of any kind. In the event of a reported incident, CIL Chairman and an Audit Committee ("**AC**") will handle it directly with the highest regard.

2 Reportable incidents from our whistleblowing hotline

To complement the policy and further strengthen our governance practices, we have in place a comprehensive 5 steps process to administer our whistleblowing reports. The diagram below illustrates the 5 steps process to administer whistleblowing reports.

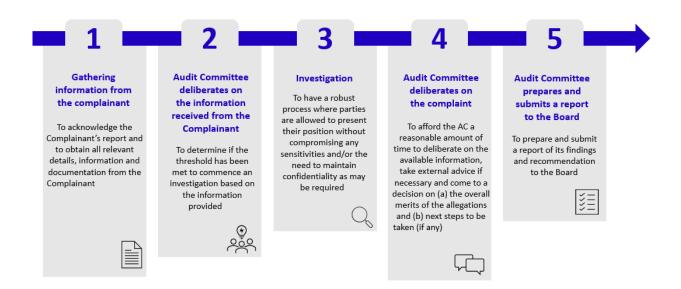


Figure 11: Whistleblowing Processes

During the reporting year, we have received two reports which are classified as whistleblowing following the whistleblowing policy and process. The reported issues have been dealt with following CIL's policy. In FY2022, there were zero known incidences of corruption in any form. Also, no employees were dismissed or disciplined for corruption and no business partners were terminated for violations related to corruption.



Figure 12: Performance of Anti-corruption policies and procedures

4.2. ENVIRONMENT

Towards Sustainable Manufacturing

Climate change is a threat facing the whole society and business world. CIL understands our responsibility as a chemicals manufacturer to tackle the issue. We are dedicated to reducing our environmental footprint on the planet and mitigating the impact posed by climate change. Throughout our value chain, we recognize that a significant portion of our environmental footprint is derived from five areas:

- 1. Environmental Compliance
- 2. Energy and Emissions
- 3. Climate change
- 4. Water and Effluents
- 5. Solid Waste Management



Figure 13: Environment Footprint Sources

We therefore set targets in these five areas and commit to achieving them consistently. As part of our operations management, we develop monitoring and assessment frameworks to review the effectiveness of our operations in meeting the targets, as well as to ensure accountability for remediation actions if any gaps are identified.



Figure 14: Hydrochloric Acid Synthesis Towers

Increasing Environmental Compliance

Aiming to contribute to the global environment, CIL proactively engages with industry-wide policymaking and spearheads technical initiatives in energy, water, solid waste, and environment management. Within the organisation, CIL ensures all activities are in accordance with the local government regulations and ensure sound management aligning with the ISO9001, and ISO14001. Besides, we conduct source emissions monitoring on a regular basis, undertake internal and external environmental audits periodically, and effectively prevent contamination and the spread of toxic materials. In these ways, CIL strives to reduce its environmental burden at every level of its business activities.



Figure 15: ISO 9001 Certificates

REGISTRATION	REGISTRATION
CERTIFICATE	SCHEDULE
this is to certify that the management system of CHEMICAL INDUSTRIES (FAR EAST) LTD have been assessed by AJA EUROPE and registered against the requirements of	Manufacture, Trading, Filling, Receiving, Storage and Delivery of Chlor-Alkali Products including HCI, NaOH, NaOCI, Cl2 and H2
ISO 14001:2015	CHEMICAL INDUSTRIES (FAR EAST) LTD
AJAEU/20/16251 8th October 2002 Certificate gradeer Date of original Registration	3 Jalan Samulun, Jurong Town, Singapore 629127
18th July 2023 2nd July 2020	91 Sakra Avenue, Jurong Island, Singapore 627882
Endiry Date Date of Re-Registration	12 AJAEU/20/16251
Oelm ? Ihr	8th October 2002 2nd July 2020 18th July 2023 Date original Registration Desce of Resistant Science of Resist
Alfonso Pagliuca, President & Founder, AJA Europe Ltd	Herriske-Audit Dee Date Revision Date Previous Expiry Da
	Affenso Pagliara, President & Founder, AlA Europe Ltd

Figure 16: ISO14001 Certificates

Transforming the Industry

CIL is a member of the Singapore Confederation of industries and a member of the Singapore Manufacturing Federation team of the Environment and Resources Standards Committee ("**ERSC**"). We make our contribution by participating in the ongoing nationwide discussion to spearhead several technical initiatives to increase environmental benefits in the areas such as:

- Energy Management
- Water Management
- Solid Waste Management
- Environment Management

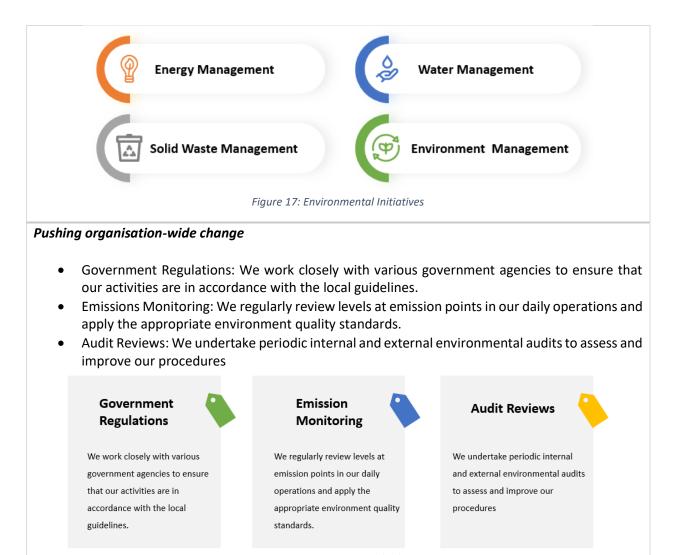


Figure 18: Organisation-wide change

At CIL, we have conducted source emission monitoring across seven emission points in our manufacturing systems and continuously monitor the emissions on a yearly basis. This involved testing for aerial traces of pollutant compounds such as hydrogen chloride, ammonia and ammonium compounds, chlorine, oxides of nitrogen, and carbon monoxide, where results revealed that the concentration of these compounds was within the *Emission Limits of Standards of Concentration of Air Impurities*, as stipulated under the *Environmental Protection and Management Act (Air Impurities) Regulations*, 2008 and *the Environmental Protection and Management (Air Impurities) (Amendment) Regulations*, 2015.

In FY2022, we built enclosures for the chlorine filling station and chlorine container storage areas as a measure to further prevent chlorine leaks into the environment. The amount of chlorine detected within our plant boundaries continues to remain below the limits set by the SCDF at our perimeter fencing. CIL has installed chlorine detectors which report results to SCDF to ensure proper monitoring and to record

that the amounts remain below 10ppm. In addition, we are in the process of upgrading our hydrochloric acid scrubbing system in order to accommodate increased production capacity.



Figure 19: The chlorine filling area

We also conduct several environmental safety drills on a regular basis. In reporting year FY2022, we conducted 5 Chlorine leak drills and a confined space emergency drill.



Figure 20: CIL safety drills

Optimising Energy Consumption

Being aware that our operations consume a considerable amount of electricity, we are committed to ensuring energy-efficient manufacturing throughout the whole lifecycle of our operation.

We adhere to a comprehensive Energy Policy that governs the actions of all our facilities, business units, subsidiaries, and employees. During the reporting period, we have reviewed and updated our Energy Policy in order to maintain operational efficiency.

Besides, we ensure that our processes adhere to ISO9001, ISO14001 and Singapore's Energy Conservation Act to remain up to date with the industry best practice and latest requirements. Every year, CIL carries out one external and two internal audits, in addition to a Management Review to review objectives, goals and targets.

We strive to optimise energy consumption in several ways:

• Investing in advanced technology

We identify and use energy-efficient electrolysers to produce two of our key chemicals - chlorine and sodium hydroxide. It features a low power consumption during use and leverages zero-gap technology in the process of manufacturing to further reduce overall energy consumption by increasing the amount of exposure to a high-performance membrane.

• Recoating and re-membraning

To ensure optimal membrane performance and hence energy consumption, we replace the membrane once every four years and recoat the electrode once every eight years. This has allowed us to capture cost-savings as well. We commenced recoating and re-membraning in this reporting year to reduce specific energy consumption per metric ton of Sodium Hydroxide, which will lead to a reduction of 240 KW in energy consumption. We also operate at lower current density by the selection of high efficiency or low power consumption membranes to optimise energy consumption by increasing the number of electrolyser elements. It has to be done in phases and is targeted completed by Dec 2023.

• Converting Gen3 electrolyser to zero gap electrolyser to optimise energy savings

We are in the process of upgrading our Gen3 electrolyser to a zero-gap electrolyser, which can maximize the utilizable area of the membrane. This conversion will further reduce energy consumption significantly and this positive effect is supported by a more equalized current distribution to the membrane and an improved release of gas bubbles reducing possible stagnation of the gas transport inside the single cell.

During the year, we modified the energy utility on mechanical flow pumps to cater to different capacity loads in the manufacturing process. This allowed us to further reduce our energy consumption.

Engaging third-party consultants to assess and improve operational energy efficiency

We have engaged with a third-party consultant to conduct the Energy Efficiency Opportunities Assessment ("**EEOA**") across our main operational processes to reduce our overall energy consumption by 10-15% by 2025.

We submitted our EEOA assessment report to NEA during the reporting year, covering the assessment period from 1 Jan 2016 to 31 Dec 2021. The assessment was focusing on aspects such as energy utility, transformation, end-use systems, as well as the interactions between related systems and the breakdown of energy use within each system. These aspects account for approximately 80% of our total energy consumption at present.

In FY2022, we expanded the scope of data collection to cover fuel consumption. Our total energy consumption amounted to **118,990,711 kWh**. Our recorded energy intensity rose in the months of (Oct21 – Mar 22) due to increased production. We will continue to monitor and manage our energy consumption in the following years and identify opportunities for further reduction.

Addressing Climate Change

In FY2022, we expanded the environment disclosure to cover direct and indirect emissions to further improve the completeness of GHG emission disclosure. The total of direct and indirect emissions are **49,519.89 t CO₂e**. We will continue to monitor our progress in the coming year with a target of 2% reduction in GHG emission to ensure that our reduction efforts remain effective.

Enhancing Water Efficiency

Water is an essential raw material in our manufacturing process, especially in the production of chloralkali. At our manufacturing facilities, we use three types of water: demineralised water, raw water, and NEWater. We withdraw the water we require for the industrial process. When possible, our manufacturing sites reuse water multiple times. These include:

- 1. Re-circulating depleted brine to produce chlor-alkali products
- 2. Recycling condensates from chlorine and hydrogen processing streams or caustic evaporation units for use in the saturator
- 3. Treating diluted sulphuric acid into a secondary final product
- 4. Using off-spec sodium hydroxide or hydrochloric acid to adjust pH levels in internal processes
- 5. Recycling rinse water from resin tower streams after the regeneration cycle for use in the saturator

As part of our ongoing efforts to conserve water, we are also continuously exploring water-saving projects to treat our wastewater into NEWater or demineralised water, so that it can be reused in our manufacturing processes.

At CIL, we perform one external audit, two internal audits, and a management review each year. We also submit the relevant water data required to the Public Utilities Board ("**PUB**") - the statutory board in Singapore responsible for coordinating the supply of utilities – to assess our plant's water efficacy.

In FY2022, our total water withdrawal from third parties amounted to **423,965 m³**, while our water discharge measured **34,107 m³**. As we increased our chemical production in FY2022, water consumption has also increased correspondingly as compared to FY2021. To continuously achieve water-saving, we are implementing water reduction initiatives such as recycling condensates from manufacturing processes back into plant machinery. We strive to obtain a 3% saving of water withdrawal from third parties per metric ton of sodium hydroxide produced in the coming financial year, as compared to the current year.

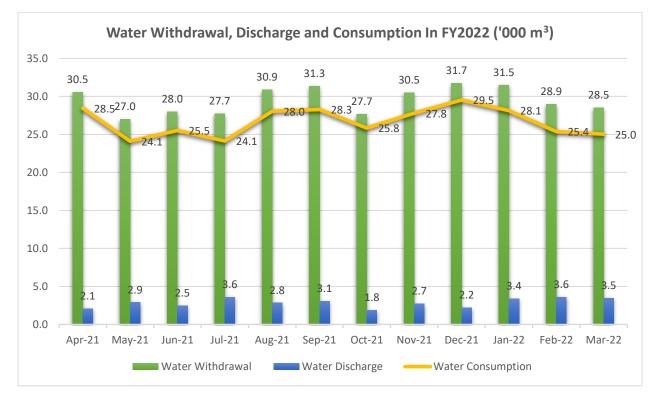


Figure 21: Water Withdrawal, Discharge and Consumption in FY2022 ('000m³)

Strengthening Solid Waste management

Consumer Outreach related to Packaging 3Rs (Reduce, Reuse, Recycle) plan was implemented as part of our commitment to reducing the environmental impact on the planet. We strive to engage clients and encourage avoidance of unnecessary packaging and spread these campaigns inside their companies or organisations and will launch more initiatives in the upcoming year to foster awareness of the 3Rs.

During the reporting year, the hazardous waste generated from CIL's operation amounted to 103.86 tons.

4.3. PEOPLE

A People-First Focus

CIL recognises that our employees are our greatest asset and key to our long-term growth and success. We are committed to providing a safe working environment for all our employees as well as to overseeing the safety measures taken by our appointed business partners and service providers. Our people-first strategy focuses on two aspects in particular:

- 1. Occupational Health and Safety
- 2. Freedom of Association and Collective Bargaining

Protecting Our Employees: Occupational Health and Safety

We adopt a zero-tolerance policy on safety lapses as the health and safety of our employees is a top priority at CIL.

Occupational Health and Safety ("**OHS**") matters at CIL are governed by *Singapore Standard (SS) 506 Part 3*, which complies with the requirements of the *Code of Practice on Safety Management System* applicable to the chemical industry. All internal and external personnel are informed of these management policies, taking into account their respective roles, responsibilities, accountability and authority. To ensure ongoing relevance to CIL's operations, the policies are reviewed periodically. Risk reviews are conducted prior to the commencement of any work, to ensure both staff safety and quality assurance. Besides, all OHS procedures are monitored and documented, from process parameters to results attained. Management teams will carry out evaluation assessments and make any adjustments, if necessary.

CIL is also a signatory to the *Singapore Chemical Industry Council ("SCIC")* Responsible Care initiative, which requires us to make annual submissions of our health, safety, and environment ("HSE") information for industry monitoring and benchmarking. As a signatory, we ensure that our policies are reviewed and updated regularly to be on par with the industry's best practices. In addition, we carry out and submit safety audits every two years according to government regulations.





Figure 22: SCIC Certificate and Bizsafe Certificate

Topics	FY2022 Targets	FY 2022 Performance
Safety Regulation Briefings	100% completion rate for employees, contractors, and subcontractors on a yearly basis	Achieved
Emergency Response Plans	100% completion rate for supervisors, foremen and process technicians on a yearly basis	Achieved
Safe Work Procedures	100% completion rate for staff on a yearly basis	Achieved
Relevant Risk Assessment	100% completion rate for staff on a yearly basis	Achieved
Tool Box Briefing	At least 1 briefing a week across all plant operations	Achieved. 1 briefing conducted

Figure 23: An overview of CIL's key OHS targets

CIL is registered under Workplace Safety and Health (Major Hazard Installations) Regulations 2017. We carry out Major Hazard Installations ("**MHI**") system to maintain and ensure the implementation of the safety case. Our MHI system complies with safety, health and environment requirements under the Workplace Safety and Health ("**WSH**") Act, Environmental Protection and Management Act ("**EPMA**") and Fire Safety Act ("**FSA**").

As a further measure to enhance workplace safety, CIL has implemented a set of Occupational Health Safety Management Procedures ("**OSHMP**") documents to guide the implementation of OHS within our operations. CIL's management uses the OSHMP documents as guiding principles to establish individual roles and responsibilities, illustrate the rules and regulations of CIL, as well as for implementation of training, risk assessment and communication. With this, employees are more informed of the risks involved in their daily work, hereby reducing the likelihood of accidents resulting from those risks.

• Internal and External Audit

Internal and external audits are conducted to ensure that CIL's OHS approaches are properly implemented and maintained. CIL's OHS performance is timely measured and monitored. The senior management of CIL regularly conducts review sessions to oversee the measured results.

Staff Involvement

To emphasise the importance of workplace safety, we involve employees as part of our solution to improve health and safety standards at CIL. Our Environmental Health and Safety ("EHS") staff works with employees using a consultative approach to solicit suggestions and ideas on potential workplace safety improvements through various channels including feedback forms. These suggestions are evaluated by a WSH committee at monthly meetings and will be implemented, if applicable. Employees are also urged to report potential work-related hazards or incidents. If an incident is reported, an investigation team will be formed to investigate the hazard and its associated risks, taking preventive measures to prevent reoccurrence.

In FY2022, there were zero work-related fatalities and high-consequence injuries recorded². However, there were 2 work-related injuries where employees tripped and fell. The total recordable incident rate was 1.75. To prevent the reoccurrence, risk assessment was reviewed, and training was provided across the whole organisation.



Figure 24: Occupational Health and Safety Performance

Number of	Rate of recordable work-related
work-related injuries	injuries
	(per 200,000 hours worked)

² A high-consequence injury is a work-related injury that results in a fatality or an injury from which the worker cannot, or does not, or is not expected to recover fully to pre-injury health status within 6 months.

FY2020	2	1.75
FY2021	5	3.90
FY2022	2	1.75

Figure 25: Year-on-year work-related injuries comparison

We provide staff access to select non-occupational medical and healthcare services such as company clinics or health insurance. Onsite health screenings, health coaching sessions and sports activities – such as our annual Corporate Steps Challenge – are also available.



Figure 26: Sakra Safety Slogan: Competition Prize Presentation

Advocating for Freedom of Association and Collective Bargaining

CIL is a pioneer of Unions since 12 Oct 1982, upholding fair and open employment in all our hiring processes. Moreover, CIL also abides by the Tripartite Alliance for Fair and Progressive Employment Practices ("**TAFEP**") fair employment guide to ensure selection is based on merit and fair opportunity for all. We negotiate with the Chemical Industries Employees' Union ("**CIEU**") in developing a Collective Agreement ("**CA**") for collective bargaining biennially, which is submitted to the Industrial Arbitration Court ("**IAC**") in Singapore. CIL will participate in the next CA negotiation which will be held in 2024. The CA is crucial in ensuring that CIL's employees are treated fairly and motivates the company to keep up to date with the latest developments in the industry relating to employee matters. Additionally, it provides employees with greater access to grievance solutions and benefits.

As of 31 March 2022, 60 of our employees subscribe to the CA and are CA members. We place emphasis on two components of the CA:

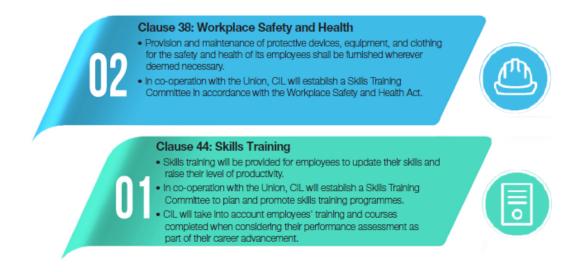


Figure 27: Collective Agreement Components

Employment in Myanmar is governed by the Ministry of Labour, Immigration and Population and the Township Labour office. The Township Labour office ensures fair employment and listens to the grievances of the employees. As such, our employees in Myanmar (Yangon) are treated fairly throughout their employment.

4.4. COMMUNITY

CIL respects and nurtures the trust placed in us by the communities in which we live, work, and grow. We strive to be recognised as a valuable corporate citizen and make every effort to operate responsibly in our local communities.

Sustaining Strong Communities Post-Covid 19

In this reporting year, we supplied 12,700 pieces of ART test kits, 150,000 pieces of facemasks and 36 bottles of hand sanitizer to safeguard our employees from the threat of COVID-19.

As part of our commitment to support the PUB in maintaining the country's waste and water systems free from viruses, we increased the production of sodium hypochlorite and chlorine. We also delivered the chemicals to quarantine facilities in order to minimise the transmission of the virus at potential hotspots and amongst service and medical frontliners.

5. GLOBAL REPORTING INITIATIVE (GRI) INDEX

GRI Disclo	sure	Section of Report	Page Reference and Remarks		
GRI 102: General Disclosures 2016					
Organisati	onal Profile				
102-1	Name of the organisation	About the Report	Pg 2		
102-2	Activities, brands, products and services	Company Overview	Pg 5		
102-3	Location of headquarters	Company Overview	Pg 5		
102-4	Location of operations	Company Overview	Pg 5		
102-5	Ownership and legal form	Company Overview	Pg 5		
102-6	Markets served	Company Overview	Pg 5		
102-7	The scale of the organisation	Company Overview	Pg 5		
102-8	Information on employees and other workers	Company Overview	Pg 5		
102-9	Supply Chain	Company Overview	Pg 5		
102-10	Significant changes to organisation and its supply chain	NA	NA		
102-11	Precautionary principle or approach	Our Business Purpose	Pg 5		
102-12	External Initiatives	NA	NA		
102-13	L02-13 Membership of associations Environment and Resources Standards Committee (ERSC)		s Standards		
Strategy					
102-14	Statement from senior decision-maker	Our Board's Statement	Pg 4		
Ethics and	Integrity				
102-16	Values, principles, standards, and norms of behaviour	Our Business Purpose	Pg 6-7		
Governand	ce				
102-18	Governance structure	Statement of Corporate Governance (CIL AR2022) Pg 6 – 20			
Stakeholder Engagement					
102-40	List of stakeholder groups	Stakeholder Engagement	Pg 10-11		
102-41	Collective bargaining agreements	People	Pg 31		
102-42	Identifying and selecting stakeholders	Stakeholder Engagement	Pg 10-11		
102-43	Approach to stakeholder engagement	Stakeholder Engagement	Pg 10-11		
102-44	Key topics and concerns raised	Materiality Prioritisation	Pg 9 - 10		
Reporting Practice					

102-45	Entities included in the consolidated financial statements	Company Overview	Pg 5	
102-46	Defining report content and topic Boundaries	Sustainability Pillars	Pg 10	
102-47 List of material topics		Materiality Prioritisation	Pg 9 -10	
102-48	Restatements of information	NA	NA	
102-49	Changes in reporting	NA	NA	
102-50	Reporting period	About the Report	Pg 2	
102-51	Date of most recent report	About the Report	Pg 2	
102-52	Reporting cycle	About the Report	Pg 2	
102-53	Contact point for questions regarding the report	About the Report	Pg 3	
102-54	Claims of reporting in accordance with the GRI Standards	About the Report	Pg 2-3	
102-55	GRI content index	GRI Index	Pg 33-35	
102-56	External assurance	About the Report	Pg 2	
GRI 103: N	Aanagement Approach 2016			
103-1	Explanation of the material topic and its Boundary	Our Board's Statement Marketplace	Pg 4 Pg 12	
103-2	The management approach and its components	Environment People	Pg 17 Pg 26	
103-3	Evaluation of the management approach	Community	Pg 30	
GRI 201: E	conomic Performance 2016			
201-1	Direct economic value generated and distributed	Marketplace	Pg 4, 12	
GRI 205: A	Inti-Corruption 2016			
205-3	Confirmed incidents of corruption and actions taken	Marketplace	Pg 15-16	
GRI 302: E	nergy 2016			
302-1	Energy consumption within the organisation	Environment	Pg 23-25	
302-2	Energy intensity	Environment	Pg 25	
GRI 303: Water and Effluents 2018				
303-1	Interactions with water as a shared resource	Environment	Pg 26-27	
303-2	Management of water discharge-related impacts	Environment	Pg 26-27	
303-3	Water withdrawal	Environment	Pg 26-27	
303-4	Water discharge	Environment	Pg 26-27	
GRI 305: Emissions 2016				
305-1	Direct (Scope 1) GHG emissions	Environment	Pg 25	
305-2	Energy indirect (Scope 2) GHG emissions	Environment	Pg 25	

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GRI 307: Environmental Compliance 2016						
307-1	Non-compliance with environmental laws and regulations	Environment	Pg 19-23			
GRI 403: Oc	GRI 403: Occupational Health and Safety 2018					
403-1	Occupational health and safety management system	People	Pg 28-30			
403-2	Hazard identification, risk assessment, and incident investigation	People	Pg 28-30			
403-3	Occupational health services	People	Pg 28-30			
403-4	Worker participations, consultation, and communication on occupational health and safety	People	Pg 28-30			
403-5	Worker training on occupational health and safety	People	Pg 28-30			
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	People	Pg 28-30			
403-9	Work-related injuries	People	Pg 28-30			
GRI 407: Fr	eedom of Association and Collective Bargaining 2	016				
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	People	Pg 30			
GRI 413: Lo	GRI 413: Local Communities 2016					
413-1	Operations with local community engagement, impact assessments, and developmental programs	Community	Pg 31			

6. SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) INDEX

Торіс	SASB Code	Accounting Metric	Response	GRI Standard	Location of disclosure
	RT-CH- 110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	 The total of direct and indirect emissions are 49,519.89 t CO2e. 	GRI 305 - 1	Page 25
Greenhouse Gas Emissions	RT-CH- 110a.2	Discussion of long- term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	This section is aligned with disclosures in Our Sustainability Focus - Environment (Pg 23-24).	GRI 103 GRI 305 - 1	Page 25- 26
Air Quality	RT-CH- 120a.1	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	The concentration of NOX emissions (excluding N2O): Less than 10 mg/Nm ³ from Exhaust from Lab & Lab ICP. The concentration of NOX is within the limits of Emission Limits of Standards of Concentration of Air Impurities.	GRI 305 - 7	N/A
Energy Management	RT-CH- 130a.1	 Total energy consumed Percentage grid electricity Percentage of renewable Total self- generated energy 	CIL does not measure the rest of the metrics at present. 1) Total energy consumed: 429,484.16 GJ 2) Percentage grid electricity: 100% 3) 0 4) 0, CIL does not use any renewable energy or self-generated energy at present.	GRI 302	Page 23-25
Water Management	RT-CH- 140a.1	1) Total water withdrawn	 Total water withdrawn: 424,000m³. 		

	2) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	2) Total water consumed: 389,948m ³ .	GRI 303 – 3 GRI 303 – 4 GRI 303 - 5	Page 26-27
RT-CH- 140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	CIL reports 0 water-related incidents of non-compliance in FY2022.	GRI 303 - 2	Page 26-27
RT-CH- 140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	This section is aligned with disclosures in Our Sustainability Focus - Environment (Pg 24-25).	GRI 303 - 2	Page 26-27

Торіс	SASB Code	Accounting Metric	Response	GRI Standard	Location of disclosure
Hazardous Waste Management	RT-CH- 150a.1	Amount of hazardous waste generated; percentage recycled	CIL has generated 103.86 tons of hazardous waste in FY2022, 0% of the waste was recycled in the reporting year.	GRI 306 - 3	Page 27
Community Relations	RT-CH- 210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	This section is aligned to disclosures in Our Sustainability Focus– Community (Pg 30).	GRI 413 - 1	Page 32
Workforce Health & Safety	RT-CH- 320a.1	 Total recordable incident rate (TRIR) Fatality rate for (a) direct employees and (b) contract employees 	1) TRIR: 1.75 2) Fatality rate: 0	GRI 403 -9	Page 30
	RT-CH- 320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and	This section is aligned to disclosures in Our Sustainability Focus – People (Pg 26-28).	GRI 403 – 1 GRI 403 – 2 GRI 403 – 3	Page 28-30

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Product		contract workers to long-term (chronic) health risks Revenue from			
Design for Use-phase Efficiency	RT-CH- 410a.1	products designed for use-phase resource efficiency	CIL does not manufacture products designed for use- phase resource efficiency.	N/A	N/A
Safety & Environmental Stewardship of Chemicals	RT-CH- 410b.1	 Percentage of products that contain Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances Percentage of such products that have undergone a hazard assessment 	1) 100% CIL does not report the rest of the metrics at present.	N/A	N/A
	RT-CH- 410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	CIL is conducting Environmental Impact Assessments (EIA) for all new activities and reviewing the routine activities on a yearly basis across our chemical production lines.	GRI 103 GRI 307 -1	N/A
Genetically Modified Organisms	RT-CH- 410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	This is not applicable.	N/A	N/A

Торіс	SASB Code	Accounting Metric	Response	GRI Standard	Location of disclosure

6- 28Management of the Legal & Regulatory Environment	RT-CH- 530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	This section is aligned to disclosures in Areas of Focus – Environment and People (Pg 17 and 26).	GRI 103	Page 19 Page 28
Operational Safety, Emergency Preparedness & Response	RT-CH- 540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	PSIC was reported to be 1 and PSTIR value was 0.8771. PSISR is yet to develop.	GRI 403	Page 28-30
	RT-CH- 540a.2	Number of transport incidents	CIL reports 0 transport incidents in FY2022.	GRI 403	Page 28-30

SASB Code	Activity Metric	Response	GRI Standard	Location of disclosure
RT-CH-000.A	Production by	CIL does not report this metric		
KT-CH-000.A	reportable segment	at present.	N/A	N/A



Figure 28: Samulun Office



Figure 29: Manufacturing Site (Sakra, Jurong Island)