



NURTURING OUR SUSTAINABILITY PROGRESS



SUSTAINABILITY REPORT
2022

About This Report

Reporting Framework

GRI 1, 2-1, 2-3

Cenviro's reporting aligns with the GRI Standards for the timeframe spanning from 1 January 2022 to 31 December 2022 as well as the Amendments to Bursa Malaysia Securities Berhad Main Market Listing Requirements, relating to Sustainability Statements within Annual Reports. This report is produced with close reference to the United Nations Sustainable Development Goals (UN SDGs) and the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The Malaysian Code on Corporate Governance (MCCG) has been used as a guide to disclose our corporate governance practices.

Scope and Boundary

GRI 2-2, 2-3

This Sustainability Report covers the reporting period for the year ended 31 December 2022, unless otherwise specified. It encompasses the activities of Cenviro and its subsidiaries, joint ventures and associate companies, all of which are located in Malaysia. References to 'Cenviro', 'the Cenviro Group', 'the Company', 'the Organisation' and 'we' refer to Cenviro Sdn. Bhd. and/or its affiliates and subsidiaries.

Assurance and Verification

GRI 2-5

This Sustainability Report has been independently verified by Bureau Veritas Certification (M) Sdn. Bhd. The assurance statement can be found on pages 122-126.

Feedback

GRI 2-3

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1 WHO WE ARE

**CENVIRO IS SOLIDIFYING OUR POSITION
AS THE LEADING MODERN RESOURCE
COMPANY WITHIN THE REGION, BY
DRIVING PROFIT WITH PURPOSE.**

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We Are Cenviro

GRI 2-6

Cenviro stands as a leading Malaysian waste resource management company, committed to providing high-quality services across the entire waste resource management spectrum for our esteemed customers. We actively contribute to the advancement of Malaysia's waste industry through strategic collaborations and close partnerships with local and international industry partners.



With a wealth of experience spanning over three decades, we have played a pivotal role in driving positive change in Malaysia's environmental landscape, with our efforts encompassing areas such as waste management, renewable energy, as well as recycling and recovery. Our ultimate goal is to offer waste resource solutions that leave a lasting beneficial impact towards our stakeholders and the community at large. We are resolute in our mission to promote sustainable practices within the waste management sector, contributing significantly to building a more sustainable future for Malaysia and beyond.

“

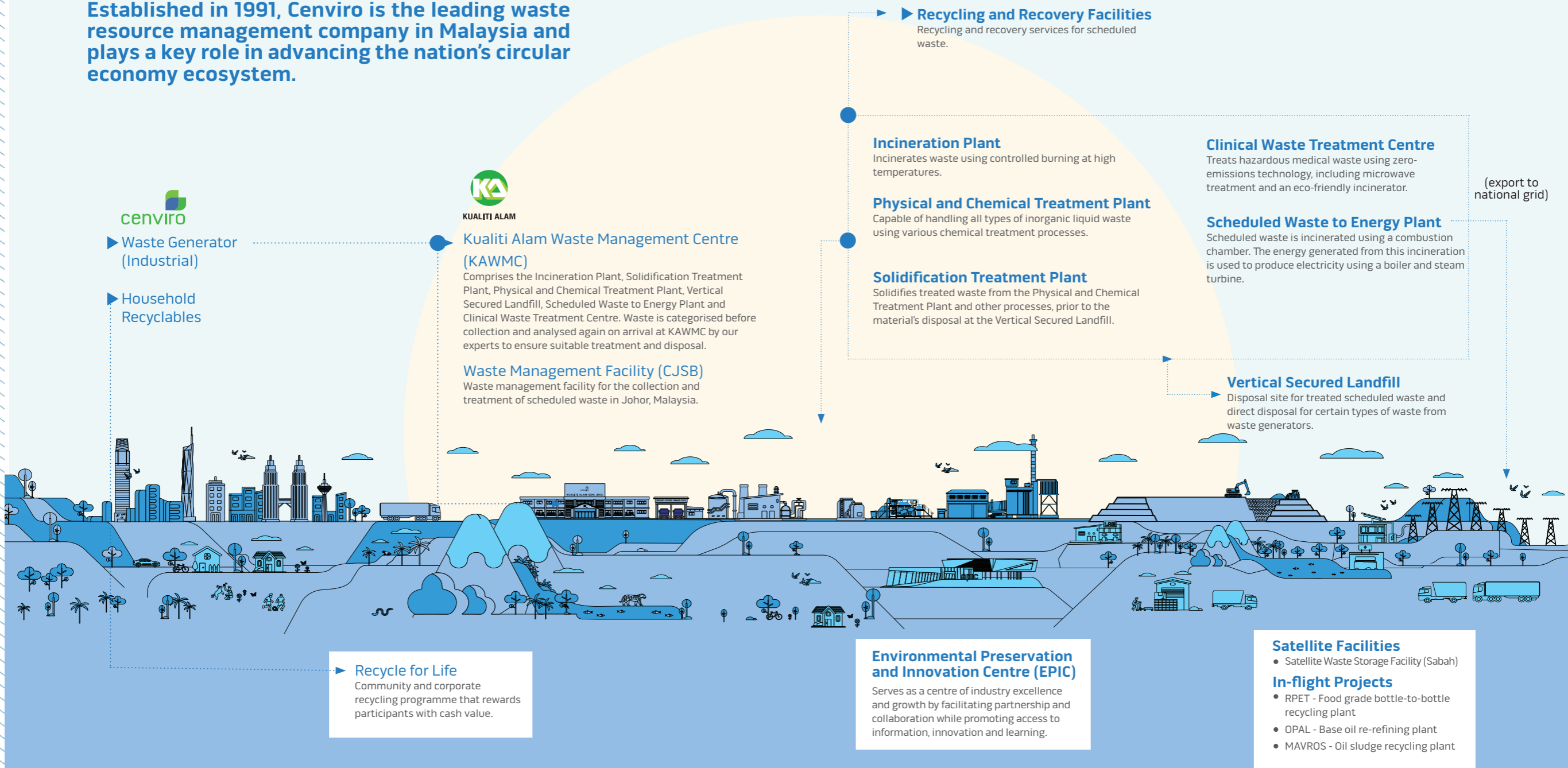
Our ultimate goal is to offer waste resource solutions that leave a lasting beneficial impact towards our stakeholders and the community at large.

”

Cenviro's Value Chain

GRI 2-6

Established in 1991, Cenviro is the leading waste resource management company in Malaysia and plays a key role in advancing the nation's circular economy ecosystem.



GRI 2-6, 2-23, 3-3

Our Purpose

Thinking Green for the Industry

The country's leading integrated environmental solutions today, the region's leading resource management company by tomorrow.

Improving Quality of Life

By minimising waste to landfills and reducing the intensity of greenhouse gas emissions, Cenviro aims to safeguard the environment and alleviate the effects of climate change on the communities that we work with.

Our Vision

The Modern Resource Company

At Cenviro, we aim to expand our services in waste resource management by embracing innovative and relevant technologies to advance our recycling and recovery capabilities. Our primary goal is to minimise landfill waste and expedite the transition to a circular economy. We are committed to consistently transforming waste into valuable materials, while simultaneously reducing greenhouse gas emissions and uplifting our employees and the communities in which we operate.

Our Mission

Improving Quality of Life

We deliver safe and innovative waste recovery and recycling solutions in our drive towards a circular economy.

Our Tagline

Reimagining Resources

Driven by Our SHIELD Core Values

Safety

Our No.1 priority which we will never compromise. We protect our staff, contractors and the community where we operate.

Holistic

We strive to offer holistic solutions to our customers and stakeholders along with service excellence.

Integrity

We associate our reputation with highest quality of service, strict regulatory compliance and uncompromising governance.

Environment

We are the conservators of the environment. Protecting the environment underpins our strategy and actions.

Lean

We cultivate a lean culture of continuous improvement and agile organisation ready to embrace change.

Diversity & Inclusiveness

We value diversity, actively pursue equity and thrive on transparency to foster an inclusive environment.

Enabling us to deliver value via our Business Segments

Integrated Scheduled Waste Management



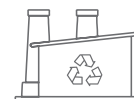
Scheduled Waste-to-Energy



Vertical Secured Landfill



Recycling and Recovery



E-waste Recycling



Municipal Solid Waste Management



Our Strategic Business Units

GRI 2-6, 3-3

With a committed workforce of 2,259 members, Cenviro conducts essential business activities encompassing recycling and recovery, energy generation, waste treatment, collection and transportation, as well as disposal of scheduled waste (SW) and municipal solid waste (MSW).

Our comprehensive range of services spans the entire waste management spectrum, ensuring the recycling and recovery of valuable resources whilst also minimising our environmental footprint. Our endeavours are pivotal in advancing a more sustainable future for Malaysia, thus aiding the nation's shift towards a circular economy.

Integrated Scheduled Waste Management



Operated by our subsidiary Kualiti Alam Sdn. Bhd. (KASB), Cenviro's integrated scheduled waste management operations provides comprehensive waste solutions from the collection, logistics and analysis to the treatment and disposal of scheduled waste. Our ISO-certified facilities handle 200,000+ tonnes of hazardous waste annually, maintaining international standards. We also offer similar services via our satellite waste management facility, Cenviro (Johor) Sdn. Bhd. (CJSB) in the Southern Malaysia region.

Recycling and Recovery



This business segment offers advanced recycling and recovery services, leading to the reintroduction of valuable materials into the circular economy. Licensed to recover 13 scheduled waste codes, we excel in full and partial recovery of spent oil, solvents and plastic. On the other hand, our Shan Poornam facility manages the recycling of electronic waste and scrap metal.

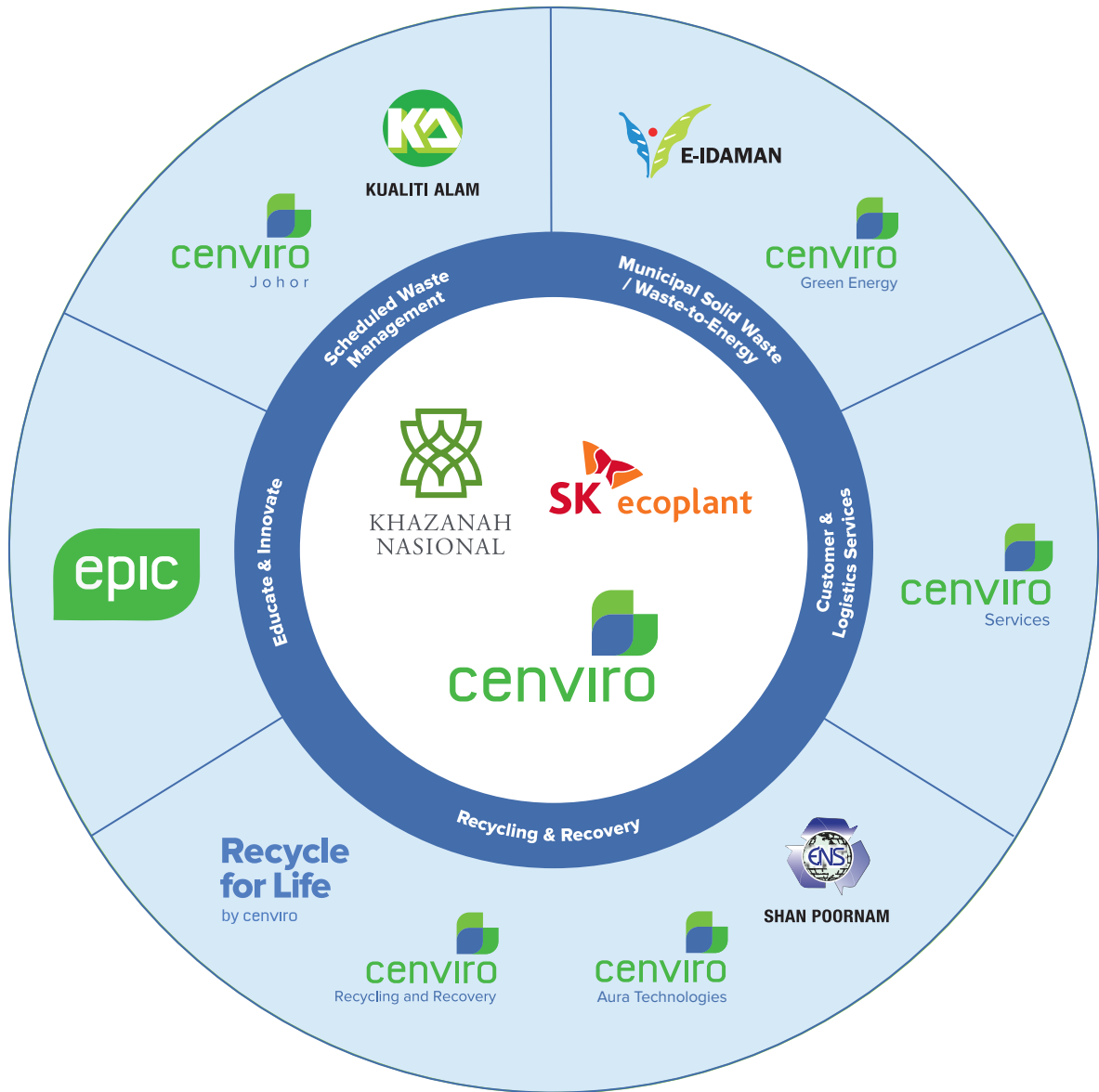
Municipal Solid Waste Management

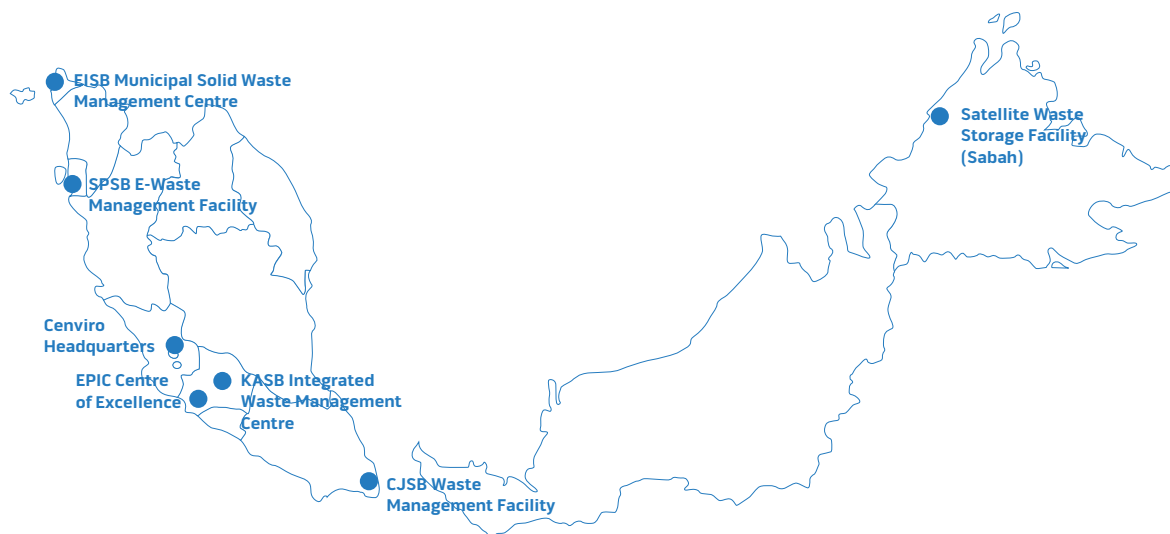


A joint-venture company between Cenviro and Metacorp Berhad, E-Idaman Sdn. Bhd. (EISB) offers integrated municipal solid waste management and public cleansing services in the Northern Malaysia region. We also provide collection, treatment and disposal solutions for different types of municipal solid waste, including domestic, recyclable, green, and bulky waste.

Our Corporate Structure

GRI 2-1, 2-2, 2-6, 3-3





Kualiti Alam Sdn. Bhd. (KASB)

The first and largest integrated waste management centre KAWMC in Malaysia, located in Negeri Sembilan, is owned and run by Cenviro through KASB. The Environmental Quality (Scheduled Wastes) Regulations 2005 enumerate 76 categories of scheduled waste that KAWMC is authorised to manage. More than 100,000 tonnes of scheduled waste can be stored, treated, and disposed of in a year at the 241.6-acre facility.

Cenviro Services Sdn. Bhd. (CS)

CS is responsible for the packaging, collection and logistics of scheduled waste.

Cenviro Recycling And Recovery Sdn. Bhd. (CRR)

Recycling and recovery services of scheduled waste. Licensed to recover resources from 13 Scheduled Waste Codes.

Cenviro (Johor) Sdn. Bhd. (CJSB)

Satellite facility for the collection and treatment of scheduled waste for the southern region.

Environmental Preservation And Innovation Centre Sdn. Bhd. (EPIC)

A centre of excellence devoted to developing national institutional knowledge as well as providing innovative and reliable solutions for waste management and renewable energy. EPIC is the thought leadership centre of Cenviro, responsible for research and development on innovative waste management solutions, while also providing training for employees and industry partners.

Recycle For Life Sdn. Bhd. (RFL)

RFL is a recycling programme that promotes 4R (reduce, reuse, recycle & recover) while spearheading efforts to minimise the nation's reliance on landfills. Through RFL, we make recycling easy and rewarding.

E-Idaman Sdn. Bhd. (EISB)

A joint-venture company between Cenviro and Metacorp Bhd. that provides integrated municipal solid waste (MSW) management as well as public cleansing services. EISB's subsidiaries include Environment Idaman Sdn. Bhd. (ENVI), Environment Idaman (Kedah and Perlis) Sdn. Bhd., Green Resource Recovery Sdn. Bhd. (GRRSB) and Environment Idaman (Perak) Sdn. Bhd.

Shan Poornam Sdn. Bhd. (SPSB)

SPSB is a provider of household e-waste recycling and chlorofluorocarbon (CFC) recovery, as well as planned waste (solid and liquid) solutions, non-scheduled waste recovery, refining, and asset management. SPSB also produces copper cathodes, high purity precious metal ingots, and secondary aluminium alloy ingots.

Cenviro Aura Technologies Sdn. Bhd. (CENURA)

Under Cenviro Recycling and Recovery Sdn. Bhd., CENURA was formed to develop and operate Malaysia's first food grade bottle-to-bottle RPET at Cenviro EcoPark.

1. Subsidiaries are companies in which Cenviro holds a majority stake or has direct management control.

2. A Joint-Venture Company refers to a contractual agreement between Cenviro and a third-party company for executing a particular business undertaking.

3. Associates are companies in which Cenviro holds a minority stake.

Message From Our Chairman

GRI 2-22

At Cenviro, we are fuelled by our commitment to a more sustainable and responsible future. As Malaysia's leading waste management company, we prioritise delivering safe and innovative waste and resource recovery solutions in our drive towards a circular economy, by transforming waste into valuable materials that yield lasting and beneficial impact to our stakeholders and the communities we proudly serve.

Throughout this year, we continued nurturing the seeds of progress that were sown in the previous year, embracing innovative technologies and strategic partnerships to position ourselves as a modern resource company. Our sustainability approach is focused on expanding our recycling and recovery capabilities, maintaining an uncompromising stance on workplace health and safety for our people, as well as safeguarding the environment by minimising greenhouse gas (GHG) emissions intensity.

In 2022, driven by the unwavering commitment of the people of Cenviro, the company recorded its highest revenue. This achievement was also made possible through our meaningful partnerships and engagement with stakeholders, all of whom share the same dedication to promote circularity and ethical business practices in Malaysia.



This year marks a significant milestone through our strategic partnership with SK ecoplant Co., Ltd. (SK ecoplant), positioning us as a regional player in Southeast Asia's waste management industry. Leveraging upon SK ecoplant's 44 years of experience in integrated waste management, we are well-prepared to harness new operational and technological capabilities to take us to the forefront of sustainable waste management and creating added value for our stakeholders.

On that note, we are delighted to announce the appointment of two new Directors, Park Deok Seop and Lee Dae Hyuck from SK ecoplant to our esteemed Board of Directors. Additionally, Cenviro is pleased to welcome our new Director from Khazanah Nasional Berhad, Effizal Faiz Zulkifly. This expansion to our Board will bring valuable expertise and diverse perspectives to our organisation, reinforcing our commitment to drive sustainable growth and innovation.

Taking a moment to reflect, I would also like to extend my heartfelt gratitude to our esteemed former directors, Loh Tzu Anne, Raja Ahmad Murad Bin Raja Bahrin and Serena Tan Mei Shwen, for their invaluable contributions throughout their tenure. As we bid them farewell, we wish them the very best in their future endeavours.

As we work towards advancing our sustainability agenda, Cenviro is confident that we will witness the fruition of our efforts in the upcoming years. Ultimately, we aspire for Cenviro to be at the forefront of the region's waste resource management industry, setting new standards for sustainable waste management and transforming the local and regional landscape to create a sustainable future for all.



Message From Our Managing Director

GRI 2-22

In 2022, we remained dedicated to moving beyond waste treatment and disposal, and growing our recycling and recovery capabilities, in alignment with our core purpose. Cenviro achieved our best financial performance to date, recording a revenue of RM 284.6 million.



Photo: TheEDGE Malaysia

This achievement is testament to our operational excellence, and exemplified by our strategic focus on process optimisation for efficient cost management while investing in a workforce that prioritises resilience, dedication and continuous improvement. It is the collective effort and hard work of Cenviro's dedicated employees that propels this organisation to consistently reach new heights every year.

As we embark on the next phase of our growth, with aspirations to be regional leaders in waste management, SK ecoplant will play a pivotal role as our new shareholding partner from 2022 onwards. With more than four decades of expertise in key areas including recycling and recovery, integrated waste management and renewable energy, SK ecoplant brings innovative technological and operational capabilities to the table. In our quest to expand our regional presence, we aim to harness our partner's strength to drive innovation in recycling and recovery solutions and contribute to nation-building efforts.

Our Sustainability Approach

Here at Cenviro, we are cognisant of our stakeholders' needs in the dynamic global and local waste management landscape. We have thus focused our efforts on driving key sustainability enablers to further advance our sustainability agenda. This year, our Sustainability-Linked Sukuk notably raised a total of RM 82.8 million, which will be directed towards financing our recycling and recovery projects.

Throughout 2022, we successfully executed 10 Continuous Improvement Projects (CIPs) across our operations and processes, which contributed to Cenviro's enhanced financial performance, and resulted in cost savings amounting to RM 2.4 million.



Reimagining Waste to Resource

We are delighted to announce that Cenviro is on track with the commissioning of our new recycling and recovery facilities within Cenviro Ecopark, as part of our 5-year plan to expand and scale our waste processing capabilities. These upcoming in-flight projects will significantly reduce reliance on diverting residual waste to landfills, thus driving our efforts towards resource recovery to elevate Malaysia's waste management capabilities.

In 2022, Cenviro treated 210,542 tonnes of scheduled waste, of which 15.4% was diverted to our recycling and energy recovery facilities. Notably, we responsibly recycled 2,036 tonnes of e-waste this year, representing approximately a 10% growth from 2021.

Addressing Climate Change

In 2022, we have achieved a 17.6% reduction in GHG intensity emissions from our baseline year of 2020. This year, Cenviro also reduced water consumption by 13.1% and generated 1,334,570 kWh of solar energy. However, our electricity consumption rose considerably due to extended operation hours and heightened process demands.

Our Scheduled Waste to Energy (SWtE) plant generated 8,731 MW of electricity to be transported as clean energy to the national grid, marking a significant 133% increase from the previous year. Furthermore, the upcoming SWtE plant within CJSB in January 2024 is designed to handle a capacity of 50 tonnes per day of scheduled waste, therefore strategically positioning Cenviro to support Malaysia's energy transition.

Biodiversity is an utmost concern for Cenviro, guiding our environmental management efforts to safeguard the areas in which we operate. In pursuit of this commitment, we have engaged with third-party consultants to conduct thorough biomonitoring and assessments for both aquatic and terrestrial flora and fauna surrounding our facilities.

Caring for Our People and Communities

As in previous years, we consistently uphold our safety-first culture, primarily through employee and contractor training, as well as initiatives that empower our employees to proactively take charge of their safety. Additionally, we achieved 390 consecutive days without Lost Time Injury (LTI) and maintained a zero-fatality rate. 7,771 Hazard Identification Programme (HIP) submissions were registered, exceeding our annual target of 5,000, thus underscoring our robust safety performance. Moreover, our Health and Safety Department was recognised as the Silver Winner for Fire Safety and Emergency Response Code at the Federation of Malaysian Manufacturers (FMM) Negeri Sembilan S.H.E Excellence Awards.

We have trained 507 Cenviro employees, averaging 36 hours per person, reflecting a 44% growth in training hours compared to the previous year. Our 2022 Employee Survey highlighted the dedicated efforts of our leadership team and staff, resulting in improvements across all measured metrics of our SHIELD (Safety, Holistic, Integrity, Environment, Lean and Diversity and Inclusiveness) core values.

In 2022, our community investments more than doubled, surging to RM105,110—a remarkable 189% growth compared to the previous year. Additionally, our RFL programme, which actively strives to enhance community-based recycling efforts to reshape perceptions about waste and reduce landfill waste, has gained momentum. During this period, Cenviro, through our RFL programme, collected an impressive 142,197 kg of waste, a 104% increase from 2021. EISB, under the idamanXchange initiative, made a substantial contribution, collecting 610,619 kg of recyclable waste, approximately a 26% growth from 2021.

Strengthening Our Governance

In 2022, we established our Sustainability Working Committee with plans to institute a Board Sustainability Committee in the future, further advancing Cenviro's sustainability agenda. This underscores our dedication to achieving the highest level of compliance across all facets of our operations. As for the Organisational Anti-Corruption Plan that was introduced the previous year, we have successfully completed 53% of the 43 key initiatives outlined in the plan.



Cenviro's Group Managing Director, Dr. Johari Jalil, was invited as a speaker for the forum "ESG In Your Business DNA - Strategy & Innovation Driven By Leadership & People", where he shared about Cenviro's ESG initiatives. The theme of the ESG Evolve 2022 event was "Driving Catalytic Change for Business Sustainability." Organised by Kexxel Group, this two-day event gathered industry leaders and award-winning speakers to discuss impactful ESG solutions that are rapidly transforming the business climate.

Moving Forward

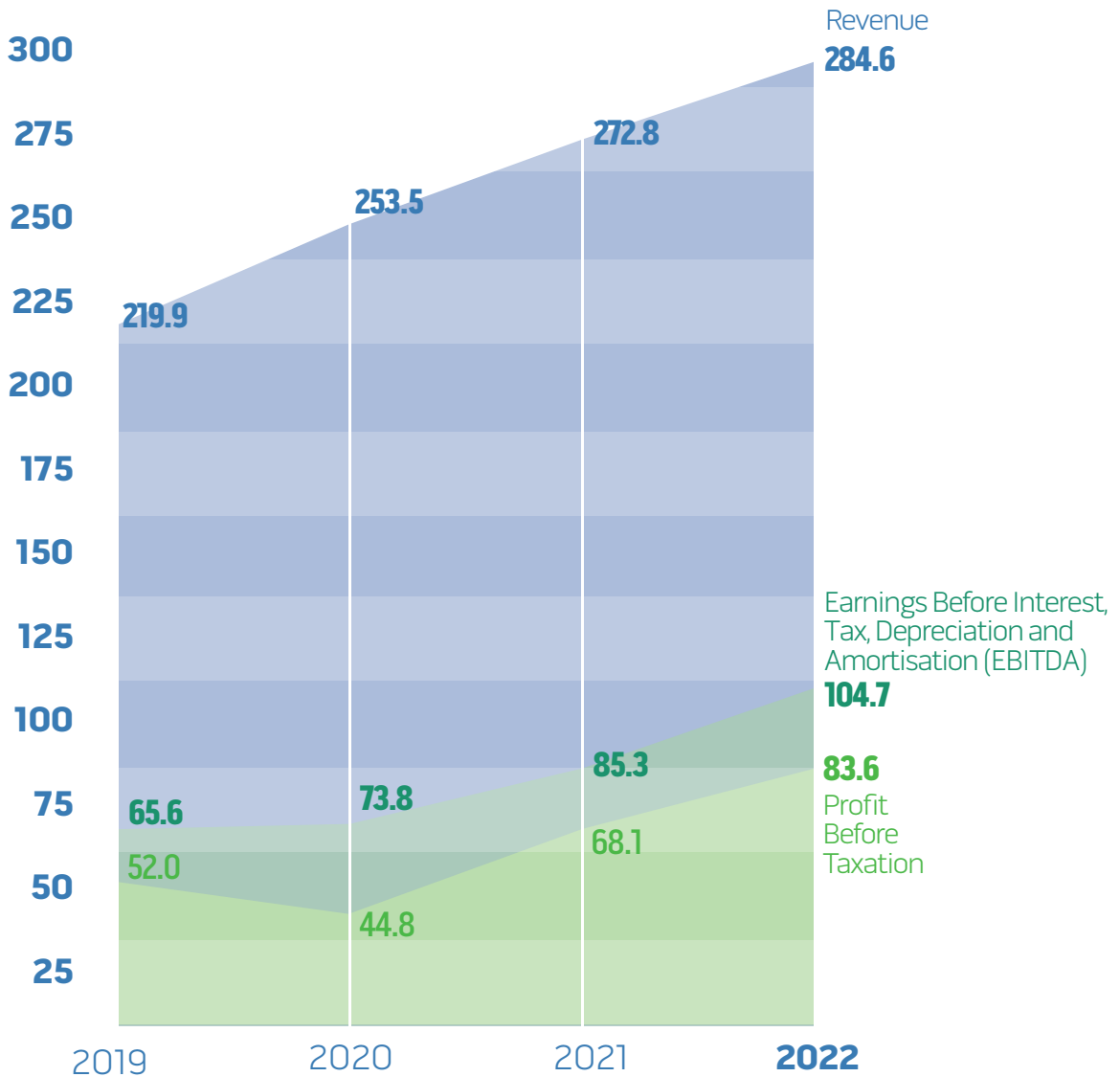
We recognise that the path to becoming a modern resource company requires dedication and collaboration from all our key stakeholders. Our journey towards a circular economy continues to evolve, and as we celebrate Cenviro's progress for the year, we are continuing our efforts to integrate sustainability into the core of all our operations. A critical component of our sustainability strategy involves expanding our services to offer a full spectrum of waste resource management services that will support the transition to a circular economy. We are confident that our collective efforts will pave the way for a more sustainable future, benefitting all.

Financial Performance

GRI 201-1

Financial Performance

(RM million)



OUR SUSTAINABILITY APPROACH

**CENVIRO IS BUILDING THE
FOUNDATION OF INTEGRATING
SUSTAINABILITY WITHIN OUR
BUSINESS STRATEGY, THUS LEADING
TO IMPACTFUL VALUE CREATION.**

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The Modern Resource Company

Reimagining
Resources



Cenviro's Approach to Sustainability

GRI 3-3

In FY2022, Cenviro has taken a comprehensive approach to set our strategies in motion, thus laying the groundwork to accelerate our focus on sustainability. Therefore, we have directed our key focus areas towards enabling the transition towards a circular economy, investing in our people and communities, as well as enhancing the robustness of our corporate governance practices. To strategically advance our focus on sustainability areas, we have set actionable targets and are actively driving both external and internal enablers to our sustainability agenda.

Company Mission

We deliver safe and innovative waste recovery and recycling solutions in the drive towards full circular economy

ESG Statement

We SHIELD the Environment for Future Generations

ESG Commitment

E

Increasing efficiency and making investments in environmentally friendly alternatives to minimise impact on the environment

S

Investing in the social well-being of local community and our employees in order to establish and promote a healthy and conducive working environment

G

Promote trust in our business practices by striving for the highest level of compliance

Strategic Themes

Transition into circular economy

Value diversity and foster an inclusive environment

Improving corporate governance and fostering a responsible business culture

Enhancing community livelihood

Establish a sustainable value chain

Sustainable Development Goals



Cenviro's Targets and Commitments

Climate Change

Reduce GHG emissions intensity **(Scope 1, 2 and 3)** by **5%** by **2025**, from a baseline year of 2020

Refer to Chapter 4: Addressing Climate Change for more information

Continuous Improvement

Achieve cost-savings of **RM2.5 million** annually

Refer to Chapter 2: Our Sustainability Approach for more information

Safety

Achieve **200 days** without **Lost Time Injury** annually

Refer to Chapter 5: Caring for Our People & Communities for more information

Diversity and Inclusiveness

Increase overall representation of women in the workforce to **40%**

Refer to Chapter 5: Caring for Our People & Communities for more information

Our Sustainability Enablers

GRI 3-3, 203-1, 203-2

Cenviro's commitment to the sustainability agenda is evident in the proactive initiatives we undertake to advance our sustainability goals.

Externally, we leverage sustainable financing and strategic partnerships to drive our sustainability efforts, securing funds for investments in our recycling and recovery projects, as well as the full spectrum of our integrated scheduled waste management services. Internally, we cultivate a culture of continuous improvement, encouraging our employees to adopt an innovative mindset and proactively contribute to our sustainability journey.



This ensures that we consistently enhance our Environmental, Social and Governance (ESG) performance over time. Furthermore, Cenviro aspires to leverage our sustainability enablers to expand our positive influence in Malaysia's waste management industry, thus contributing towards nation-building.



We cultivate a culture of continuous improvement, encouraging our employees to adopt an innovative mindset and proactively contribute to our sustainability journey



1 Sustainability-Linked Sukuk

Sustainable financing has become a vital tool for us to achieve both our business and sustainability goals. By using sustainability-themed financial mechanisms, we gain access to capital and essential resources, allowing us to make significant strides towards our aspirations. Sustainable financing accelerates our journey towards a greener future, while also advancing our progress in achieving the UN SDGs.

In 2022, we issued our first Sustainability-Linked Sukuk (SLS), valued at RM82.8 million in two tranches, as part of our unrated Islamic medium-term notes programme of up to RM500 million under the Shariah principle of Wakalah Bi Al-Istithmar (Sukuk Wakalah Programme). The SLS framework on which the issuance is based on, aligns with the principles set forth by the International Capital Market Association (ICMA) and underlines Cenviro's commitment to sustainability, particularly in reducing GHG emissions intensity. Prior to the SLS issuance, the framework was independently reviewed by a second-party opinion provider, RAM Sustainability Sdn. Bhd.

The funds acquired through this SLS has been allocated to several specific purposes, including financing the existing KAWMC in Negeri Sembilan, the CJSB in Pengerang, Johor, as well as the RPET facility within Cenviro EcoPark, distributed across Tranche 1, 2 and 3 respectively. Our Sustainability Performance Target (SPT) for the SLS is aligned with the targets of our 5-Year GHG Reduction Roadmap, and also contributes to the UN SDGs 9, 12 and 13.

For more information on the progress of GHG emissions intensity reduction, please refer to Chapter 4: Addressing Climate Change.

Sustainability Performance Target (SPT)

5% GHG emissions intensity reduction by 2025

**2020 as the baseline year*



Cenviro's strategy to achieve the SPT consists of **3 major pillars**, namely, via electricity efficiency, transportation optimisation, and material efficiency initiatives.

2 R&D and Innovation

Cenviro is dedicated to pioneering innovative and impactful waste resource solutions in Malaysia, primarily via investments in technological developments and strong industry partnerships and collaborations.

EPIC as our R&D platform

EPIC, our R&D centre, is pivotal in driving our R&D efforts and supporting our vision of becoming a leading resource recovery and recycling company. We aim to establish EPIC as a centre of R&D excellence, by facilitating mutual partnerships and collaborations with universities and research institutions, thus enabling the commercialisation of innovative research projects. In a world characterised by strong trends such as growing urbanisation, the scarcity of resources, climate change and new technologies, Cenviro has focused its research efforts on 5 focus areas, centred around waste circularity solutions, waste valorisation, recovery of precious materials and carbon mitigation strategies. In 2022, EPIC channelled RM50,000 in research grants to leading universities in Malaysia.



In 2022, EPIC has driven multiple research projects, some in collaboration with leading Malaysian universities such as Universiti Putra Malaysia (UPM) and Universiti Malaysia Pahang (UMP), while the rest were conducted internally by our researchers. Below is a snapshot of our major research projects:

EPIC R&D PROJECTS



Aluminium Dross to Construction Material

To divert the huge quantity of aluminium dross from our landfills, we have utilised the treated aluminium dross as one of the raw materials in developing interlocking pavement bricks and blocks, which is intended to be used for the Cenviro EcoPark site.

The grant provided by Cenviro to UPM was used for the development of the prototype and pilot batches.



Aluminium Dross to High-Purity Alumina

We have also recycled the waste aluminium dross into high-purity alumina, which can be utilised as a catalyst for multiple chemical reactions.

The grant provided by Cenviro to UMP was channelled into the analysis and techno-commercial study of the alumina end-product.



Clinical Plastic Waste to Fuel Oil

In order to divert the excess clinical plastic waste from our vertical secured landfills, we have engaged in a research project to convert the waste into fuel oil via the pyrolysis technology.

Carried out internally by EPIC researchers, the fuel oil end-product can be used as incineration fuel, or other fuel-grade oil after further distillation.



Removal of Boron from Wastewater

To reduce boron levels in our leachate wastewater discharge to permissible limits, the R&D research team employed surplus lime carbide waste from our operations as an adsorbent. This approach led to the formation of less than 2% sludge in the overall wastewater leachate discharge.

This project would enable us to utilise the incoming waste to treat the leachate produced, thus reducing waste being diverted to the landfills.



SK ecoplant as our strategic partner

SK ecoplant of South Korea has joined forces with Khazanah Nasional Berhad in a strategic partnership to drive Cenviro's growth as a prominent waste management player in the Southeast Asian (SEA) region. With a dual-purpose focus, this collaboration aims to expand Cenviro's presence in the SEA region, particularly in countries such as Indonesia and Vietnam, while also facilitating the transfer of knowledge and technology to enhance our existing operations in the Malaysian market. By leveraging SK ecoplant's 44 years of expertise in eco-friendly businesses, including integrated waste management, energy, engineering and construction, along with their leading technology and construction capabilities in 15 countries worldwide, Cenviro aims to strengthen our position as a regional leader in the waste management industry.

Under this strategic partnership, SK ecoplant has acquired a 30% stake in Cenviro, while Khazanah will remain the majority shareholder. With SK ecoplant's global experience and commitment to strengthening their ESG credentials, Cenviro will gain valuable guidance in realising our ambitions as a regional player in the waste management sector.

To enhance the efficiency of our incineration processes, Cenviro is exploring the implementation of smart sensor technology alongside artificial intelligence (AI-DT) in our SWtE facility. For this technology transfer initiative, SK ecoplant will take an active role in both deploying the sensor technology as well as conducting training sessions for Cenviro's workforce.



3 Continuous Improvement Culture

Cenviro's "Continuous Improvement" culture is a key pillar in our transformative journey, which aims to foster an innovative mindset amongst our employees, whilst also enhancing operational efficiency. By adopting Continuous Improvement (CI) principles, Cenviro strives to generate a pipeline of cost-saving initiatives in the pursuit of fully integrating this CI culture into our business operations.

This culture shift starts with our senior management and empowers all employees to propose innovative solutions, aligning with Cenviro's vision of becoming a leading resource recovery and recycling company within the region. We firmly believe that this approach goes beyond cost-saving projects, and leads to a workforce marked by innovation, productivity, and high performance, thus positioning Cenviro for sustained growth in the waste management industry.



Cenviro's journey with Continuous Improvement Projects (CIPs) started in 2019. As we progress towards our strategic aspirations, we have effectively executed 10 CIPs throughout 2022, spanning various operations and processes. These CI initiatives have directly contributed to notable improvements in our financial performance, while also indirectly enhancing several aspects of our operations, leading to increased cost-savings, more streamlined processes, optimised output and enhanced service quality.

Additionally, these CI initiatives have brought about non-financial impacts, fostering improve collaboration and teamwork across multiple departments, and facilitating internal waste reduction through digitalisation and automation initiatives.

Target savings from CIPs

2022	2,500,000
2021	2,500,000
2020	2,500,000

Actual savings from CIPs

2,417,597
3,160,000
2,800,000

Number of CIPs implemented

10
14
11



Project Details	Impacts Achieved
Alternative treatment method for slow-moving waste	Decrease in operating expenses, thus leading to higher profit margins
Integration of pipelines for solvent plant process	Enhancement of process efficiency, alongside the generation of profit through increased production of Reconstituted Oil (RO)
Alternative treatment method for varnish waste	Increased income from waste treatment and resolved backlog of recalcitrant waste
Automation to improve invoice processing	Increased efficiency and improved user experience



Being a part of our company's CI culture has been truly transformative. The emphasis on constant growth and refinement has not only streamlined our processes, but has also empowered every employee to contribute their ideas through critical thinking and problem solving, ultimately creating a meaningful impact on the company's business continuity and sustainability. Witnessing how our collective efforts, no matter how small, accumulate into substantial improvements, has been incredibly motivating. The CI culture has fostered an environment of collaboration, open communication, and a shared commitment to excellence. It's not merely about enhancing our work efficiency; it's about cultivating a mindset that thrives on innovation and learning. Personally, I've experienced growth both professionally and personally by embracing this culture, and I'm excited to see how much further we can progress together.



En Ahmad Nazli
Assistant Manager
Internal Logistics



4 Sustainability Governance

To proactively advance Cenviro's sustainability agenda, a dedicated Sustainability Committee was established in 2022. This committee oversees the sustainability strategy, governance, priorities, targets, and integration of sustainability considerations throughout our organisation, thus enabling the effective execution of our sustainability initiatives.

Our strengthened sustainability governance aims to ensure robust leadership in delivering our sustainability commitments, particularly regarding climate action. In adopting a top-down approach that emphasises accountability and adaptability, we have solidified the roles and responsibilities of the Sustainability Committee in 2022.



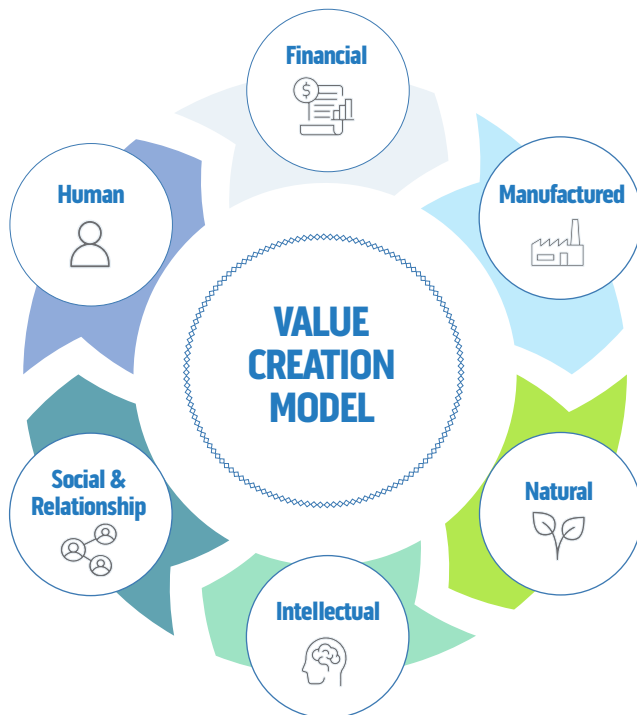
Note: For more information about the roles and responsibilities of the Sustainability Committee, please refer to Chapter 6: Strengthening Our Governance.

Our Sustainable Value Creation

GRI 2-6, 3-3

Our Value Creation Model

Sustainable value creation is a fundamental principle that ensures businesses go beyond short-term profits and consider their impact on society and the environment. Via this approach, we demonstrate our commitment to benefit not only our immediate stakeholders but also the broader community and future generations. By embracing sustainable practices, we can reduce our environmental footprint, bolster our reputation as responsible corporate citizens, and contribute to the well-being of our community and society, thus leaving a lasting legacy that goes beyond the balance sheet.









The adoption of the International Integrated Reporting Council (IIRC) value creation model has empowered us to gain a holistic understanding of the impact and dependencies of the different forms of capital involved in our business. The model serves as a compass for informed decision-making, generating value for shareholders and stakeholders alike, thus leading to a collaborative and inclusive approach to create a thriving and sustainable future.



By embracing sustainable practices, we can reduce our environmental footprint and bolster our reputation as responsible corporate citizens



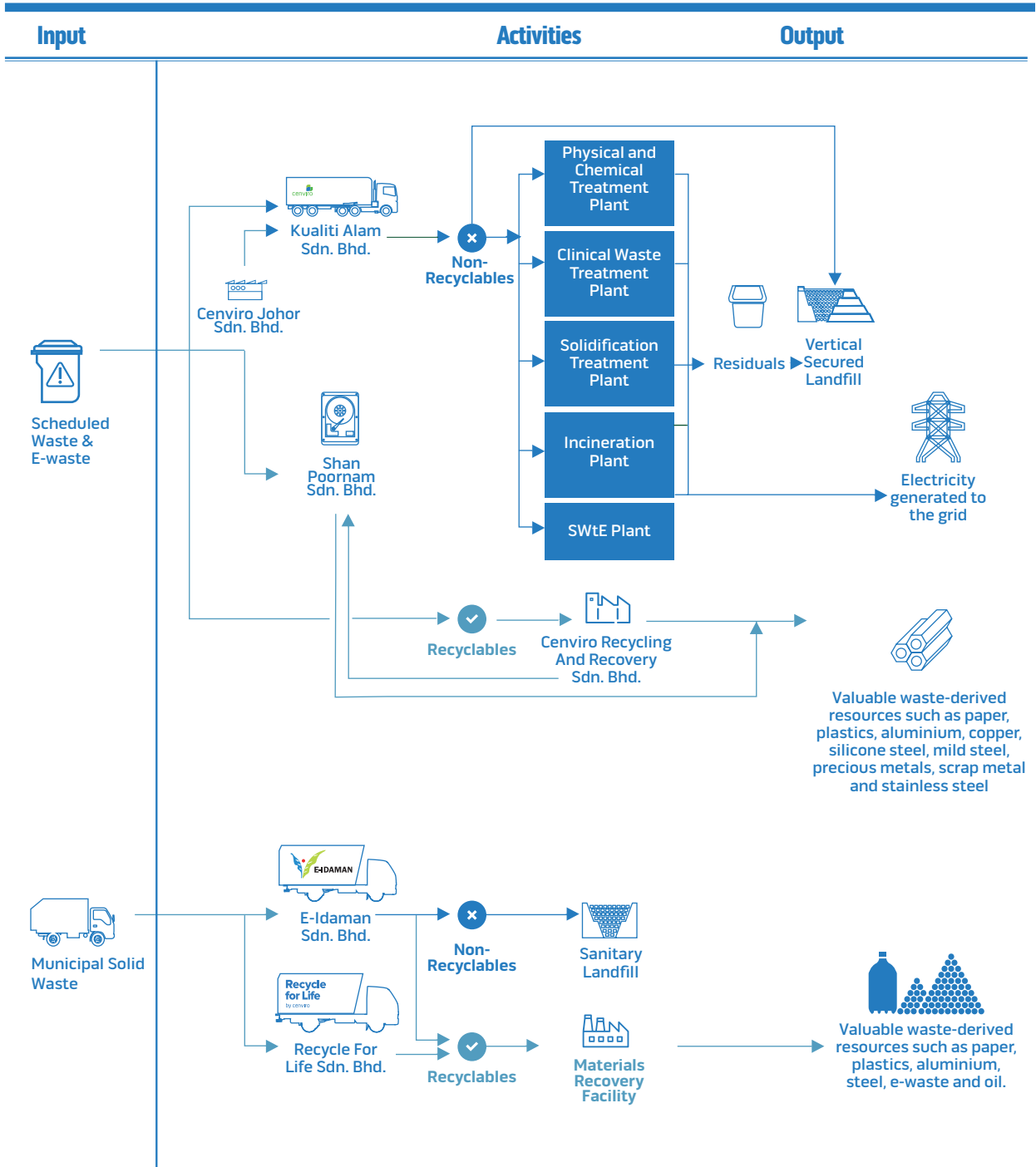
Our six capital inputs...

Capital		Indicators	Units	2022
Financial 	Our commitment lies in generating value for our stakeholders through the acquisition and utilisation of funds, enabling us to flourish as a leading waste resource management company in Malaysia.	Total assets	RM Million	748.6
		Shareholders' Equity		477.3
		Sustainability-Linked Sukuk		82.8
Manufactured 	We continually pursue fresh avenues for growth, aiming to enhance our recycling and recovery capabilities.	Waste management facilities*	—	7
Natural 	We consistently enhance the execution of our environmental practices, actively monitoring, managing and reducing air pollution and greenhouse gas emissions throughout our operations.	Total energy consumption	GJ	214,720
		Purchased electricity consumption	kWh	18,833,558
		Total water consumption	m³	168,329
		Total materials consumption	tonnes	2,098
Human 	Our primary emphasis is on the health and safety of our workforce, while simultaneously offering employees meaningful and captivating work experiences, along with opportunities for learning and development.	Total workforce (Cenviro & EISB)	headcount	2,259
		Salaries & employee-related costs (Cenviro only)	RM million	69.1
		Total training expenditure (Cenviro & EISB)	RM million	1.02
Social & Relationship 	We guarantee the delivery of concrete value to our customers, while also enhancing the health and well-being of our community through educational programmes on recycling.	Total CSR contributions	RM	105,110
Intellectual 	We cultivate industry partnerships and collaborations to drive the progress of innovative solutions in recycling and energy recovery.	Total R&D expenditure	RM	50,000

*Note: Facilities exclude SPSB, CJSB, EISB, CS, EPIC & RFL.

















GRI 2-6, 3-3

Enable us to carry out purpose-led business activities and services...



Which produce long-term outcomes...

and value aligned with SDGs

Capital	Indicators	Units	2022	YoY Progress	SDG	Value Created
Financial 	Total revenue	RM Million	284.6	⬆		In 2022, Cenviro and EISB achieved 4.3% more revenue than in 2021.
	EBITDA		104.7	⬆		
	Return on Equity	%	13.2%	⬆		
Manufactured 	Waste Recycled Recycling and Recovery Facilities	Tonnes	7,990	⬇	  	In 2022, Cenviro recycled a total of 10,032 tonnes of scheduled waste and e-waste via CRR and SPSB.
	Waste Recovered to Energy SWtE Plant		24,477	⬇		
Natural 	Total absolute GHG emissions	tCO ₂ e	89,279	⬇		Cenviro reduced GHG emissions in 2022 by 17.63% , mostly due to the implementation of bottom-up projects.
	GHG emissions intensity from KAWMC	tCO ₂ e/ton waste treated at KAWMC	0.368	⬇		
	Renewable Energy Generation	kWh	1,334,570	⬇		Cenviro generated 1,334,570 kWh of solar energy in 2022.
Human 	Number of consecutive days without LTI	days	390	⬇		Cenviro recorded 390 consecutive days without LTI and zero fatality rate in 2022.
	Average training hours (Cenviro)	hours	36	⬆		Cenviro increased their average training hours by 40% in 2022.
Social & Relationship 	Recycle for Life beneficiaries (schools)	-	63	⬆		In 2022, we have engaged with five communities, 63 schools and 19 corporate partners .
Intellectual 	Number of local research projects	-	4	⬆		Cenviro increased their local research projects by 50% in 2022.

Sustainability Achievements

GRI 3-3

Key Highlights

Cenviro is firmly committed to sustainability-driven growth, exemplified by our unwavering dedication to our SHIELD (Safety, Holistic, Integrity, Environment, Lean, Diversity and Inclusiveness) core values. These core values form the backbone of our business approach, permeating every aspect of our operations. Embracing these values empowers Cenviro to drive meaningful change, guiding our strategies, actions and practices towards a future built on sustainable practices and responsible business conduct.

	2020	2021	2022
Safety Number of consecutive days without LTI	226	400	390
Holistic Waste recycled (tonnes) Waste recovered to energy (tonnes)	11,110 25,217	8,182 25,509	7,990 24,477
Integrity Regulatory compliance CRR is licensed to recover 13 Scheduled Waste Codes			
Environment GHG emissions intensity reduction (%)	-	1.34%	17.63%
Lean Cost savings from CIP (RM)	2,800,000	3,160,000	2,417,597
Diversity & Inclusiveness Board diversity (women)	60%	50%	16.7%

Materiality & Stakeholder Engagement

GRI 2-29, 3-1, 3-2, 3-3














Stakeholder Engagement

GRI 2-29, 3-3











As a waste resource management solutions provider, we are deeply connected to the environment in which we operate and the community we serve. Our ability to create and protect value is dependent on our relationships, our activities and the contributions we make to our stakeholders. By providing for their needs, meeting their expectations, and managing relevant risks, we create and protect value for our stakeholders and for Cenviro, while minimising value erosion.



Stakeholder Engagement

Stakeholder Groups	Relevant needs and expectations	Capitals Impacted	Metrics/Data Tracked	Our Response
Shareholders	<p>Share price appreciation and an attractive dividend stream</p> <p>Sustainable growth in revenue and financial performance</p> <p>Attractive business plans and growth strategy</p> <p>Strong and experienced management</p> <p>Transparent reporting and disclosure</p> <p>Sound ESG practices measured through shareholder feedback and AGM outcomes</p>	<p>Financial</p>  <p>Intellectual</p>  <p>Social and relationship</p> 	<p>Revenue, EBITDA and other financial performance indicators</p> <p>Share price and dividends</p> <p>Investor relations</p>	<p>Message from Our Managing Director, pg 13</p> <p>Financial Performance, pg 17</p> <p>Recycling and Recovery of Waste, pg 46</p> <p>Driving Performance Through Strong Leadership, pg 92</p>
Employees	<p>A safe and healthy work environment</p> <p>Fair remuneration, effective performance management and recognition.</p> <p>Career development and advancement opportunities</p> <p>An empowering environment that embraces diversity and inclusivity</p>	<p>Intellectual</p>  <p>Human</p>  <p>Social and relationship</p> 	<p>Employee satisfaction survey</p> <p>Training and development indicators</p> <p>Health and safety indicators</p> <p>Employee retention and turnover rate</p>	<p>Providing a Safe, Healthy and Fair Workplace, pg 72</p> <p>Empowering our Employees, pg 81</p> <p>Ethical Business Conduct, pg 102</p>
Customers	<p>Responsible and high quality waste management services</p> <p>Value-for-money waste management services that are competitive and transparent in pricing</p> <p>Excellent customer service</p> <p>Trusted and credible Cenviro brand</p> <p>Convenient partner of choice</p>	<p>Intellectual</p>  <p>Manufactured</p>  <p>Social and relationship</p>  <p>Natural</p> 	<p>Customer satisfaction survey</p>	<p>Our Sustainability Approach, pg 18</p> <p>Reimagining Waste to Resource, pg 40</p>
Government, local authorities and regulators	<p>Compliance with all legal and regulatory requirements</p> <p>Active engagement with the industry and regulatory working groups</p> <p>Assistance in managing and resolving waste and environmental issues</p> <p>Supporting the Government's efforts to appreciate, conserve and protect the environment</p>	<p>Intellectual</p>  <p>Social and relationship</p>  <p>Natural</p> 	<p>Environmental and HSSE indicators</p> <p>Feedback from progress updates and compliance reports</p> <p>Outcome of visits, inspections, networking sessions, seminars and forums</p>	<p>Reimagining Waste to Resource, pg 40</p> <p>Managing our Environmental Footprint, pg 64</p> <p>Providing a Safe, Healthy and Fair Workplace, pg 72</p> <p>Ethical Business Conduct, pg 102</p>

Stakeholder Engagement

Stakeholder Groups	Relevant needs and expectations	Capitals Impacted	Metrics/Data Tracked	Our Response
Local communities and the public	<p>Community investment programmes</p> <p>Mitigating our operational impact on the environment</p> <p>Effectiveness of recycling programmes and MSW collection</p>	<p>Human</p>  <p>Social and relationship</p>  <p>Natural</p> 	<p>Amount channelled towards community investment</p> <p>Number of beneficiaries positively impacted</p>	<p>Recycling and Recovery of Waste, pg 46</p> <p>Managing our Environmental Footprint, pg 64</p> <p>Providing a Safe, Healthy and Fair Workplace, pg 72</p> <p>Supporting our Communities, pg 88</p>
Suppliers and contractors	<p>Fair procurement and responsible sourcing practices</p> <p>Supplier assessment and engagement process</p> <p>Contractor health and safety practices</p>	<p>Human</p>  <p>Social and relationship</p> 	<p>Supplier assessment</p> <p>Contractor HSSE indicators</p> <p>Quarterly Safety Committee Meeting</p>	<p>Providing a Safe, Healthy and Fair Workplace, pg 72</p> <p>Sustainable Supply Chain, pg 105</p>
Media	<p>Business strategies and growth plans</p> <p>Updates on projects</p> <p>Progress of targets tied to sustainability-linked sukuk issuance</p>	<p>Financial</p>  <p>Intellectual</p> 	<p>Press releases</p>	<p>Message from Our Managing Director, pg 13</p> <p>Cenviro website</p> <p>Social Media</p>
Industry and business partners	<p>Responsible conduct of business operations</p> <p>Commitment to integrity and accountability</p> <p>Innovative research projects</p>	<p>Intellectual</p>  <p>Social and relationship</p>  <p>Manufactured</p> 	<p>Results of collaborative research projects</p> <p>Grants provided</p>	<p>R&D & Innovation, pg 23</p> <p>Providing a Safe, Healthy and Fair Workplace, pg 72</p> <p>Empowering our Employees, pg 81</p>

Materiality Assessment

GRI 3-1, 3-2, 3-3

In 2020, we undertook a materiality assessment to determine the most significant sustainability concerns for our stakeholders. This assessment led us to identify 24 critical material topics crucial to our business. We are also committed to managing our stakeholders' expectations and aligning their long-term objectives with our overarching vision.

In subsequent years, 2021 and 2022, we conducted a comprehensive review of these key material topics to ensure their continued relevance to our business, how they impacted our operations and their alignment with stakeholder interests and concerns. Our analysis, which includes industry benchmarking and best practices, confirms that our materiality matrix effectively captures stakeholder interests in both years.

Aligned with regulatory recommendations, we will conduct a new materiality assessment in 2023 to ensure our material topics are updated in line with emerging trends and stakeholder interests.



Materiality Topics

EESG Pillars	SHIELD Core Values	Material Topics	Alignment to GRI Topic Standards
Economic	Holistic	Operational efficiency* Achieving customer satisfaction Future-focused integrated solutions Community engagement and development	203: Indirect Economic Impacts 413: Local Communities 418: Customer Privacy
Environment	Environment	Transition to circular economy Managing emissions and addressing climate change Renewable energy from waste Sustainable energy consumption Water management Operational efficiency* Domestic waste management Biodiversity monitoring	201: Economic Performance 203: Indirect Economic Impacts 301: Materials 302: Energy 303: Water and Effluents 304: Biodiversity 305: Emissions 306: Waste
Social	Safety	Noise monitoring Health, safety and well-being of communities Prioritising workplace health and safety	403: Occupational Health and Safety 304: Biodiversity
	Lean	Developing a next generation workforce Fostering an engaged workforce Digital technologies and innovation Operational efficiency*	203: Indirect Economic Impacts 401: Employment 404: Training and Education
	Diversity & Inclusiveness	Promoting diversity and equal opportunity	405: Diversity and Equal Opportunity
Governance	Integrity	Good governance Ethical business Data security and privacy Engaging with industry and relevant authorities Beyond compliance Sustainable procurement practices	2: General Disclosures 203: Indirect Economic Impacts 204: Procurement Practices 205: Anti-corruption

*repeated material topics

REIMAGINING WASTE TO RESOURCE

TO ENCOURAGE THE TRANSITION
TOWARDS A CIRCULAR ECONOMY,
WE ARE FOCUSING OUR EFFORTS TO
ENHANCE OUR RESOURCE RECOVERY
AND RECYCLING CAPABILITIES.

Our Waste Hierarchy Performance	42
Recycling & Recovery of Waste	46
Treatment & Disposal of Waste	54
Collection, Transportation & Storage of Waste	57

Reimagining Waste to Resource

GRI 3-3, 2-6

Moving away from the conventional “take-make-dispose” approach, Cenviro is actively committed towards enabling the transition to a circular economy through our integrated waste management services. Therefore, we have adopted the waste hierarchy model, placing emphasis on waste collection, recycling and recovery before resorting to disposal.











This approach enables us to focus our efforts in elevating Malaysia’s waste management capabilities, thereby contributing to nation-building aspirations for responsible waste management and climate change mitigation. Our services play a pivotal role in yielding value for our shareholders, and reshaping perceptions of waste.



To encourage the transition towards a circular economy, we are focusing our efforts to enhance our resource recovery and recycling capabilities. We have undertaken several projects to support the continued growth of CRR. This journey involves expanding our waste management processing capabilities, particularly in alternative fuels by leveraging on innovative technologies that will streamline our processes and scale up the production of high-quality alternative fuel. Additionally, we are actively exploring innovative methods of wastewater treatment that can effectively minimise disposal costs.

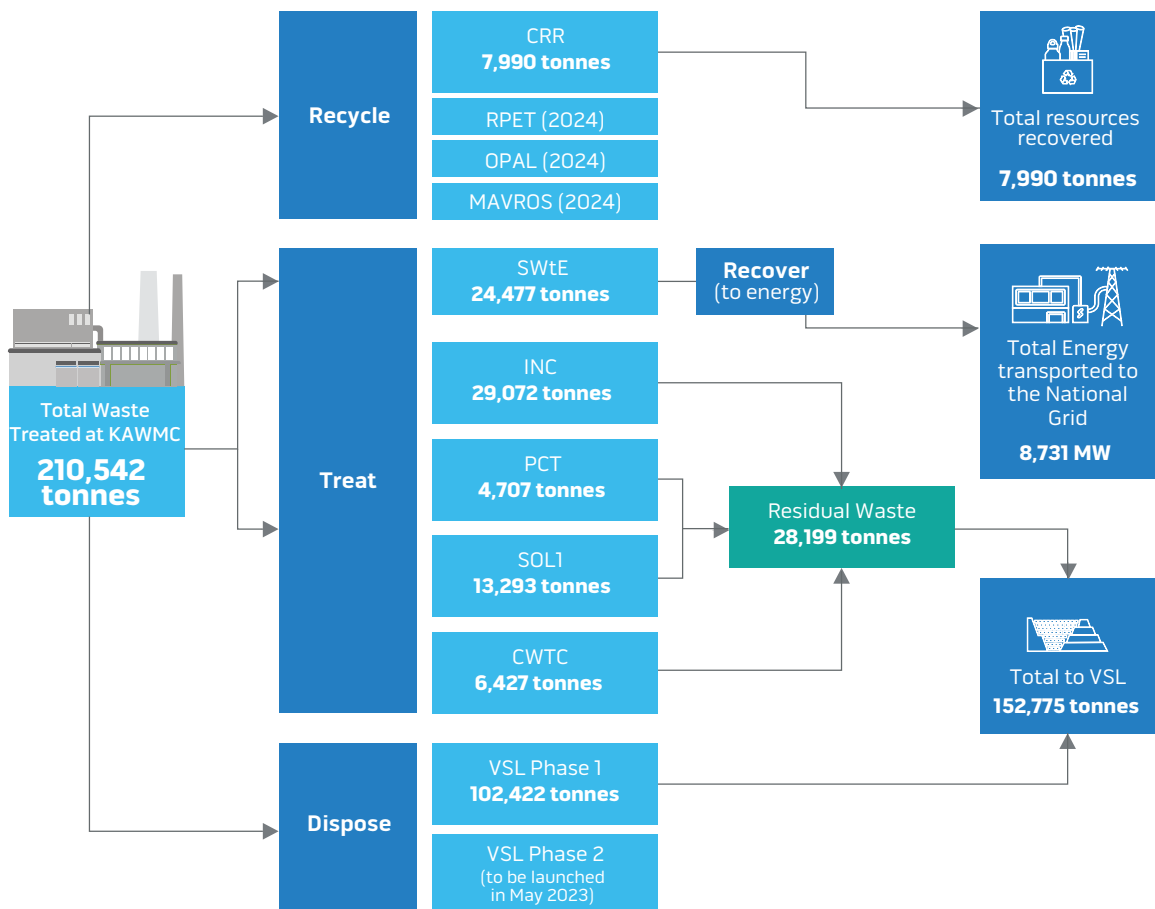
Our Waste Hierarchy Performance

The waste hierarchy approach was adopted to streamline our waste management services and enable us to evaluate our year-on-year waste management performance. Ultimately, we aim to minimise the diversion of residual waste to landfills.

	Activities	Services	Goal
Recycle   	Generating valuable waste-derived materials such as: <ul style="list-style-type: none"> • Hydrocarbons • Metals • Solvents Providing recycling-based community services	Cenviro Recycling & Recovery Sdn. Bhd. <ul style="list-style-type: none"> • CRR plant • OPAL plant (commence in 2024) • MAVROS plant (commence in 2024) • NITRO plant (commence in 2023) Recycle for Life Sdn. Bhd. Shan Poornam Sdn. Bhd (SPSB) E-Idaman Sdn. Bhd. Cenviro Aura Technologies Sdn. Bhd. <ul style="list-style-type: none"> • RPET plant (commence in 2024) 	
Recover Energy 	Generating energy via waste treatment processes	Kualiti Alam Sdn. Bhd. <ul style="list-style-type: none"> • SWtE plant 	
Treat 	Treating non-recyclable scheduled waste (SW)	Kualiti Alam Sdn. Bhd. <ul style="list-style-type: none"> • Incineration plant (INC) • SWtE plant • Physical and Chemical Treatment plant (PCT) • Solidification Treatment plant (SOLI) • Clinical Waste Treatment Centre (CWTC) 	
Dispose 	Disposing residual waste from treatment facilities to landfills	Kualiti Alam Sdn. Bhd. <ul style="list-style-type: none"> • Vertical Secured Landfill (VSL) Phase 1 and 2 	

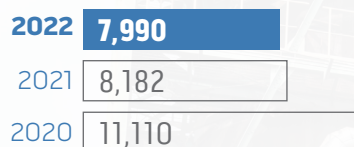
Transforming Waste to Resource

Since inception, Cenviro has been committed to transforming the traditional waste management industry in Malaysia by focusing on innovative recycling and energy recovery solutions. Our efforts are actively directed towards moving up the waste hierarchy and minimising our reliance on landfills. Our recycling and recovery business segment currently accounts for approximately 15% of the total processed waste at our KAWMC complex and our aim is to progressively increase the amount of waste diverted to our CRR facilities.

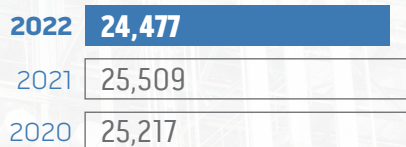


Waste Input

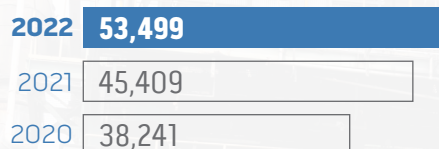
Recycled (tonnes)



Recovered to Energy (tonnes)



Treated (tonnes)



Disposed (tonnes)



Resource Output

Resources Recovered (tonnes)



Energy generated (MW)



Waste Analysis

Cenviro is unwavering in its commitment to move up the waste hierarchy and to achieve this, we test and evaluate our scheduled waste brought to KAWMC using our advanced on-site laboratory. This rigorous process enables us to accurately categorise the waste based on its specific characteristics, facilitating decisions on whether recycling, energy recovery, treatment, or landfill disposal is the most appropriate course of action.

We have extended our waste analysis services beyond our organisation, providing valuable insights and solutions to external clients. In 2022, we ran 203,319 tests on 17,950 samples, representing a 24.4% increase in the number of tests run compared to the previous year.

Number of Tests Run

2022	203,319
2021	163,404
2020	244,809

Number of Samples Tested

2022	17,950
2021	19,483
2020	18,614



What We Do

Offer waste evaluation and specialist waste testing services, such as Waste Acceptance Criteria (WAC) analysis, effluent analysis, and external laboratory analysis.

Regulatory Compliance

ISO/IEC 17025:2017 accreditation for Waste Analysis Laboratory.

International Laboratory Accreditation Cooperation (ILAC) recognition for Waste Analysis Laboratory.

Recycling & Recovery of Waste

GRI 3-3, 203-1, 203-2

At Cenviro, our overarching mission is to deliver safe and innovative waste recovery and recycling solutions, reimagining resources for a sustainable future. We are committed to providing trusted and reliable end-to-end scheduled waste recycling and recovery services through our advanced CRR facility, catering primarily to our commercial and industrial partners. Our comprehensive range of offerings includes a wide array of recycling solutions, such as converting used oil into reconstituted oil, which serves as a viable diesel substitute or a valuable raw material for grease manufacturing. In alignment with sustainable practices, we convert used solvents into high-quality industrial-grade solvents, further minimising waste and environmental impact. We also specialise in the recycling of plastic containers, the dismantling and resale of scrap metal, and the partial recovery of e-waste, which is subsequently shipped to the SPSB facility for complete recovery.



We are committed to providing trusted and reliable end-to-end scheduled waste recycling and recovery services through our advanced CRR facility



The proportion of waste diverted to CRR facilities decreased from 18.6% in 2021 to 15.4% in 2022. Moving forward, we are prioritising recycling and energy recovery activities, to drive our efforts towards diverting waste towards recycling recovery processes. In addition to the three facilities that we plan to launch in the upcoming years, we have also recently announced the launch of Project NITRO, which aims to further enhance our capabilities in converting waste into valuable resources, thus cementing our commitment to sustainable waste management and resource optimisation.

Recycling & Recovery Highlights



4.36 Million kg of oil generated in 2022, marking a **46% increase** from 2021



58,400 kg solvents converted, more than **200% increase** from the previous year



142,646 kg in e-waste recovered, **26% rise** from 2021



952,895 kg of scrap metal recovered



2.2 million kg of plastic waste recycle

Recycling & Recovery of Waste

Materials recycled (tonnes)

2022	7,990
2021	8,182
2020	11,110

In 2022, notable progress was achieved in the recycling and recovery of waste oil, e-waste and solvents. These improvements were attributed to enhanced inventory management and refined internal processes. As a result, oil recycling increased by 46%, and solvent generation witnessed a significant 203.6% increase. E-waste recycling significantly rose by 10% compared to 2021, a growth attributed to the effective collaboration between SPSB and our RFL programme.

“
Cenviro remains consistently dedicated to exploring fresh avenues for recycling and optimising resource recovery”

Cenviro remains consistently dedicated to exploring fresh avenues for recycling and optimising resource recovery. We are taking significant steps to boost metal scrap recovery through a strategic partnership with a global vehicle manufacturer to reclaim resources from warranty claims and used car parts. Furthermore, in line with Cenviro's culture of continuous improvement, our upcoming brownfield projects are geared towards further enhancing our oil recovery plant processes and optimising container recycling in order to amplify the value of the recovered end products. These initiatives are set to commence in 2023 and be completed by 2024.

CENVIRO IN-FLIGHT PROJECTS

RAMUNIA	OPAL	RPET	MAVROS	NITRO
Expected Capacity 50 tonnes/day	Expected Capacity 20 tonnes/day	Expected Capacity 33 tonnes/day	Expected Capacity 20 tonnes/day	Expected Capacity 20 tonnes/day
Planned Operation Date 2023	Planned Operation Date 2024	Planned Operation Date 2024	Planned Operation Date 2024	Planned Operation Date 2025
Objective SWtE facility in Pengerang to cater to scheduled waste generated in Johor and reduce dependency on KAWMC.	Objective To recycle waste lubricants into regenerated waste.	Objective To produce food-grade recycled Polyethylene (RPET) resins, which is then converted into bottles.	Objective To recycle waste oil sludges from refineries and marine sources into light fuel.	Objective To recycle waste rubber sludges into reprocessed rubber.

Recycle For Life Highlights

At Cenviro, we recognise the utmost importance of community engagement as a driving force behind our journey towards a circular economy. Central to this effort is our dedication to educating the community about the importance of recycling. By spreading awareness and knowledge about recycling, we aim to create a ripple effect that generates increased demand for sustainable and recyclable products at the consumer level. As more individuals embrace eco-friendly choices at the point of purchase, manufacturers are encouraged to respond by ramping up the production of environmentally conscious products. This synergistic relationship between informed consumers and responsible manufacturers is essential to drive circularity and mitigate environmental impact.








Our RFL programme, which promotes responsible waste disposal and recycling has continued to expand its reach with the continuous collaboration of Negeri Sembilan's Department of Environment (DOENS) to organise impactful e-waste collection drives that target schools and government agencies within the Negeri Sembilan state as well as our work with Petronas Chemical Group and IOI Properties to integrate the RFL programme within their premises.

For the year 2022, the programme collected an impressive amount of 31,943 kg of e-waste, a 21% increase from the previous year, and garnered participation from 36 schools in Negeri Sembilan as well as 27 schools in Selangor. Overall, Cenviro collected a total of 142,196 kg of materials for its RFL programme, surpassing its performance in 2021 and achieving a 105% increase.



Recycle For Life Highlights

CENVIRO

	Paper 87,389.21		Aluminium 10,866.07
	Plastic 8,637.54		E-Waste 31,943.05
	Steel 3,361.05		

Total
142,196.9 kg



idamanXchange

Established in 2022, idamanXchange is a recycling programme, that gives cash rewards for recyclable items through the use of the mobile app. The programme aligns with EISB's objectives to encourage public recycling practices and support the government's Separation at Source (SAS) initiative. To date, there are more than 16,000 users registered with idamanXchange.

Drive Thru Recycle Centre (DTRC)

DTRC is a project initiative pioneered by EISB, in collaboration with the government, local authorities and Solid Waste and Public Cleansing Management Corporation (SWCorp) Malaysia to drive resource management within the solid waste sector in the northern region of Malaysia. Spearheaded in 2021, with the first DTRC in Kangar, Perlis, there are now eight DTRC established in the states of Perlis and Kedah.

EISB

	Paper 427,864.23		Used Cooking Oil 47,033.00
	Plastic 85,282.22		E-Waste 2,404.00
	Steel 29,565.28		Fabric 523.30
	Aluminium 14,600.25		Glass 3,346.93

Total
610,619.2 kg

Scheduled Waste to Energy Highlights

In 2018, our SWtE plant, the first of its kind in Malaysia, began its operations, marking a significant step towards sustainable waste management. Despite unexpected downtime at our SWtE plant, resulting in a slight decline of 24,477 tonnes in the waste treated compared to 2021, our enhanced turbine performance successfully resulted in the generation of 8,731 MW of electricity in 2022. This represents a 133% increase, significantly contributing to the national grid and supporting Malaysia's renewable energy targets as outlined in the country's energy transition roadmap.

Waste Treated (tonnes)

2022	24,477
2021	25,509
2020	25,217

Energy Generated (MW)

2022	8,731
2021	3,742
2020	12,209

To cater to the scheduled waste management demands in the southern region of Malaysia and further advance our commitment to environmentally responsible waste management, we are proud to introduce Project RAMUNIA, an upcoming SWtE plant. In preparation for its commissioning in January 2024, several site visits and main equipment installation took place in 2022. The new SWtE plant will be strategically positioned within CJSB, designed to handle a capacity of 50 tonnes per day of scheduled waste.

What We Do

- Incinerate scheduled waste via a combustion chamber. The thermal energy generated during incineration is used to power a boiler and steam turbine to generate electricity.
- Electricity generated by the turbine is exported to the national energy grid.

How We Create Value

- Our SWtE plant is the first of its kind in Malaysia, diverting energy source away from fossil fuel-based electricity to reduce GHG emissions.

Regulatory Compliance

- Emissions from the SWtE plant comply with Malaysia's Environmental Quality (Clean Air) Regulations Act.
- Our SWtE plant meets both Malaysian and EU regulatory standards.



SPSB Highlights on e-Waste Recycling

SPSB, a subsidiary of Cenviro, plays a pivotal role in the recovery and management of e-waste. As part of our commitment to environmental sustainability, we aim to achieve full recovery of e-waste recycled by the CRR plant. The process involves diverting residual waste to the VSL, ensuring minimal environmental impact.

In 2022, we responsibly recycled 2,036 tonnes of e-waste, achieving a recovery efficiency of 99.7%.

What We Do

- Recycle household and industrial e-waste as well as scheduled waste, using green technologies.
- Recover precious metals for other industries.
- Provide solutions for scheduled waste and non-scheduled waste recovery, refining and asset management, including e-waste recycling and chlorofluorocarbon (CFC) recovery.
- Manufacture eco-friendly products such as secondary aluminium alloy ingots, high purity precious metal ingots and copper cathodes through closed-loop recycling of scheduled waste.

How We Create Value

- Return valuable electronic materials back into the manufacturing loop.

Regulatory Compliance

- Received ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) certifications and ISO 45001:2018 (Occupational Health and Safety).

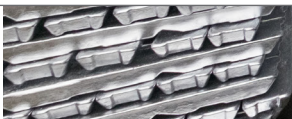
e-Waste Recycled by SPSB

Incoming Recyclable Waste (tonnes)

2022	2,042
2021	1,855
2020	2,048

Output Waste Recycled (tonnes)

2022	2,036
2021	1,849
2020	2,045



E-Idaman Highlights on Municipal Solid Waste Management

Through our joint venture with EISB, we offer holistic MSW management solution coupled with public cleansing services to residential customers in the northern region of Malaysia. This endeavour promotes a healthier and cleaner environment for the communities under our care.



Over 550,000 tonnes

of Municipal Solid Waste collected in 2022



178% increase

in used cooking oil collected compared to 2021

Catered for



403,462

premises



Customer Satisfaction

Every year, we administer a customer survey to gauge satisfaction levels among EISB customers. In 2021, the survey was refined to target specific customer segments within selected areas, incorporating feedback from new customers and new locations. As of 2022, we have noted a significant rise in customer satisfaction, reaching an impressive 85%, and surpassing the initial target of 75%.

EISB Customer Satisfaction Rating

2022	84.66%
2021	74.50%
2020	99.20%
2019	98.70%

E-Idaman Highlights on Municipal Solid Waste Management



MSW Collection Services

Provide waste collection using multi-compartment trucks for efficient waste separation and improved waste management.



MSW Commercial and Public Recycling Services

Sort and collect MSW to recover recyclable and compostable materials like paper, plastic and glass, avoiding direct landfill diversions.

Recyclables collected from EISB's public and commercial collection services and IdamanXchange's community-based recycling undergo sorting and are processed at EISB's Materials Recovery Facility. Materials like cardboard, paper, HDPE, PET, PP, steel, aluminium and tin are manually sorted and sold as raw materials.



MSW Community-based Recycling

Engage communities via idamanXchange to incentivise waste collection for recycling.



Public Cleansing Services

Ensure litter-free, safe public spaces with high-pressure water jetters and beachcombers, including road sweeping, grass cutting and drain cleaning.

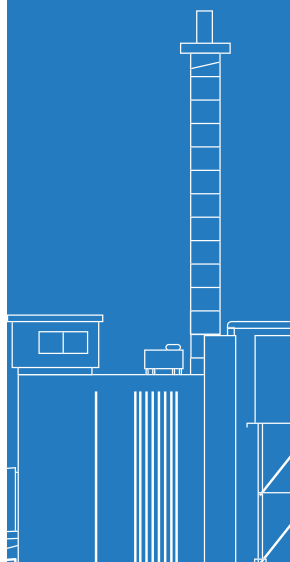
Certification for ISO 14001 – Environmental Management System
 Certification for ISO 9001 - Quality Management System

Treatment & Disposal of Waste

GRI 3-3, 203-1, 203-2

Cenviro remains committed to diverting larger quantities of waste towards recycling and recovery, although it is worth noting that a significant portion still finds its way to various treatment facilities and landfills. In 2022, we directed 84.6% of total scheduled waste to our treatment and disposal facilities, representing an increase from the previous year. We will continue our efforts to minimise the diversion of waste to landfills through the deployment of advanced technologies and the establishment of our new recycling and recovery facilities.

Incineration Plant



Output

- Waste incinerated: **29,072 tonnes**
- Increase in waste treated at our incineration plant is a result of the greater number of days the incinerator plant was in operation compared to 2021.

What We Do

- Practice responsible incineration, ensuring all harmful substances are captured and treated appropriately.
- Reduce scheduled waste volumes and hazards through controlled high-temperature incinerations.
- Treat various waste types of organic scheduled waste.

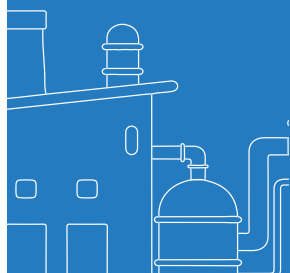
How We Create Value

- Prevent landfill disposal by treating waste according to its characteristics.

Regulatory Compliance

- The Continuous Emissions Monitoring System (CEMS) monitors incineration, ensuring emissions meet environmental standards.

Physical & Treatment Plant



Output

- Waste treated: **4,707 tonnes**

What We Do

- Treat hazardous inorganic liquid waste via chemical processes for safe disposal.

How We Create Value

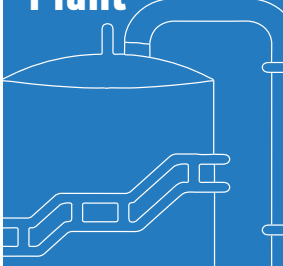
- Prevent landfill disposal by treating waste according to its characteristics.

Regulatory Compliance

- Certified to meet the standards of MS ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, MS 1722:2011 and ISO/IEC 17025:2017

Treatment & Disposal of Waste

Solidification Treatment Plant



Output

- Waste treated: **13,293 tonnes**

What We Do

- Stabilise and solidify toxic components before disposal at VSL to prevent leaching.

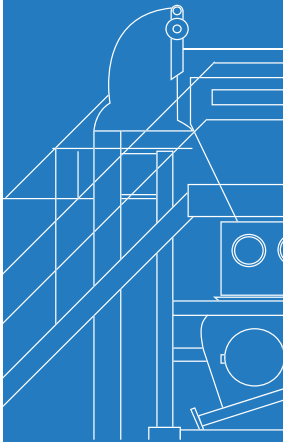
How We Create Value

- Prevent landfill disposal by treating waste according to its characteristics.

Regulatory Compliance

- Certified to meet the standards of MS ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, MS 1722:2011 and ISO/IEC 17025:2017

Clinical Waste Treatment Centre (CWTC)



Output

- Waste treated: **6,427 tonnes**
- 91.1% satisfaction rating from clinical waste customers.
- 2,691 participants in Clinical Waste User Training sessions reaching 64 hospitals.

What We Do

- Process clinical waste using microwave treatment to convert into inert, emission-free landfill residue.
- Incinerate excess COVID-19 waste for safer disposal.

How We Create Value

- Promote responsible handling of clinical waste.
- Conduct yearly Clinical Waste User training to ensure waste arriving at CWTC is managed safely.
- CWICLI app provides billing and financial data to customers.

Regulatory Compliance

- Certified to meet the standards of MS ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, MS 1722:2011 and ISO/IEC 17025:2017

Treatment & Disposal of Waste

Vertical Secured Landfill

Output

- Waste disposed at Phase 1 site: **124,576 tonnes**
- Remaining capacity of VSL Phase 1: 5%
- Estimated Lifespan of VSL Phase 1: Until Nov 2023
- VSL Phase 2 to be launched in May 2023 and is ready to be utilised once VSL Phase 1 reaches its full capacity
- Lifespan for VSL Phase 2: 12 years

What We Do

- Optimise landfill management using geogrid walls for expansion.
- Treat leachate at Leachate Treatment Plant (LTP) for Standard B effluents as per DOE requirements.

How We Create Value

- Extend landfill life by 30+ years, saving 45 acres of land.
- Organise capacity-building programmes to convert landfills into secured landfills.

Regulatory Compliance

- Track key compliance metrics (groundwater, surface water, ambient air quality, noise quality) to ensure responsible environmental management.

Customer Satisfaction

At Cenviro, our primary focus is to provide our customers with high-quality services. To achieve this, we took significant steps in 2020 by introducing online surveys specifically designed for our Scheduled Waste and Clinical Waste customers. As of 2022, our commitment to customer satisfaction is evident, with a remarkable 91.1% average customer satisfaction rate amongst CW customers while SW customers reported 72.9% satisfaction.

Clinical Waste Customer

2022	91.1%
2021	86.2%
2020	88.2%

Scheduled Waste Customer

2022	72.9%
2021	80.0%
2020	79.0%

Collection, Transportation & Storage of Waste

GRI 3-3, 203-1, 203-2

Cenviro provides comprehensive solutions for scheduled waste management to our industrial and commercial clients. This encompasses the entire spectrum, from waste collection to transportation and off-site storage facilities. Our service focus includes a suite of packaging and industrial services, ensuring secure waste handling. We play a crucial role in aiding authorities in spillage and illegal dumping cases, as well as supporting our internal operations team with special internal projects such as waste backlog clearance and waste repackaging.



Note: the list of services shown is not exhaustive.



Illegal Dumping Clean Up

Successfully completed clean up operations for illegal dumping in Permatang Pauh and Krubung, involving treatment, transportation, and on-site handling services.

ADDRESSING CLIMATE CHANGE

**AT CENVIRO, WE ARE COMMITTED TO
REDUCE OUR ENVIRONMENTAL AND
CARBON FOOTPRINT.**

Towards a Low-Carbon Economy 59
Managing Our Environmental Footprint 64



Towards a Low-Carbon Economy

GRI 3-3

Cenviro places a strong emphasis on reducing our environmental impact and carbon footprint as one of our key priorities. Our main focus is to ensure the safe management of waste and harmful chemicals through innovative practices that embrace circularity and resource reimagining. By doing so, we aim to tackle the urgent challenge of climate change and its detrimental impact on communities.

Looking ahead, we recognise the significant role the waste sector can play in mitigating GHG emissions. To achieve this, we actively implement sustainable waste solutions such as resource recycling and recovery to help minimise the amount of waste sent to landfills. Our commitment to continuous improvement also drives us to effectively reduce our operational carbon emissions.



To direct our efforts in reducing GHG emissions, we have crafted a comprehensive 5-year roadmap with specific and attainable goals. By year 2025, our objective is to achieve a 5% decrease in GHG emissions intensity compared to our baseline year of 2020, accounting for the projected growth of waste managed by Cenviro.



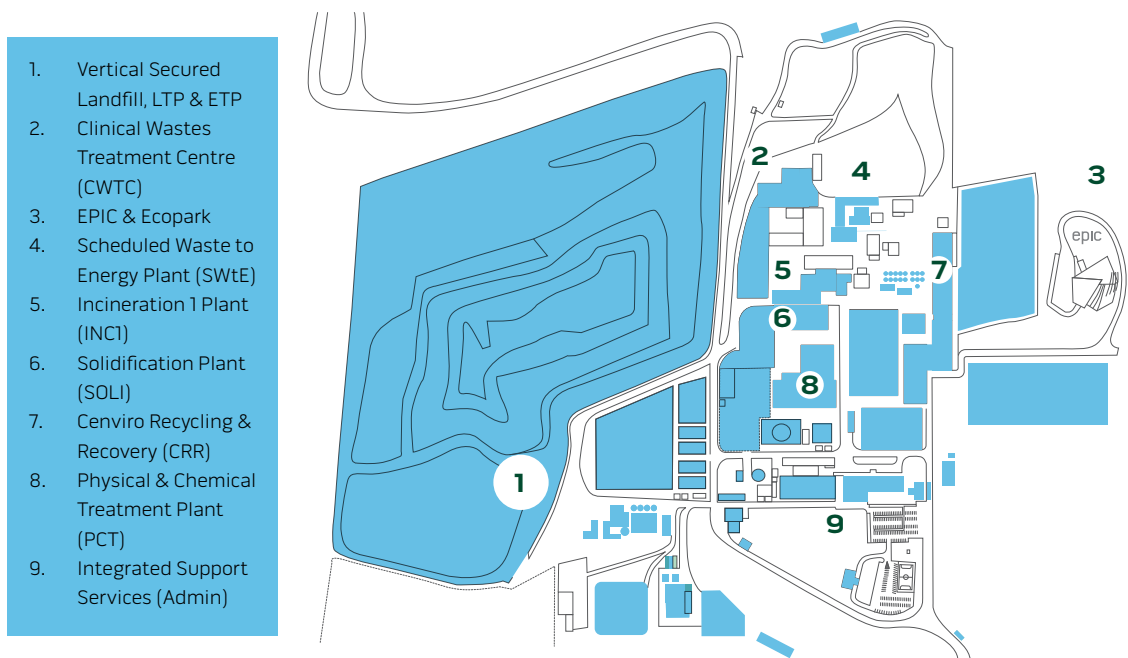
We direct our efforts in reducing GHG emissions, we have crafted a comprehensive 5-year roadmap with specific and attainable goals



5-year GHG Reduction Roadmap

With a strong commitment to sustainability, Cenviro actively implements cutting-edge waste solutions that prioritise resource efficiency and environmental impact management. Acknowledging our role in minimising carbon emissions throughout our value chain, we are determined to bolster business resilience and address climate change risks, both immediate and long-term.

To propel the transition towards low-carbon operations, we successfully launched our 5-year GHG reduction roadmap, which aims for a 5% reduction in GHG emissions intensity by 2025 compared to our 2020 baseline.



The strategies we have developed to achieve this target are primarily focused on enhancing the efficiency of our electricity, transportation and materials usage. As of 2022, we have made significant progress in reducing our GHG emissions intensity by 17.63%. The reduction in GHG emission intensity is primarily attributed to a higher volume of waste treated compared to the previous year, supported by the implementation of bottom-up projects encompassing electricity, transport, and material efficiency initiatives. Moving ahead, we will maintain close monitoring of the reduction figures to ensure they consistently surpass the 5% target.

Low-Carbon Transition Strategies

GRI 305-5

In steadfast alignment with Malaysia's goal of becoming a net zero GHG emissions nation by 2050, Cenviro embraces our role in supporting this transformative endeavour. Our commitment to environmental stewardship drives us to recognise the importance of carbon accounting in our mission towards sustainability.

To further strengthen our commitment, Cenviro has taken proactive steps by initiating the development of a robust Carbon Management Plan. This forward-looking plan is strategically designed to deliver significant business and environmental value to all our stakeholders. At the core of this comprehensive initiative lies the establishment of our GHG baseline year, precise boundaries and inventories adhering to the stringent ISO 14064-1:2018 standard.

By pinpointing GHG emissions through this rigorous process, we gain valuable insights that empower us to prioritise reduction efforts effectively while being aligned to the targets set forth in the SLS.

5% Overall CO ₂ Reduction by 2025	
Continuous Improvement (CI)	Human Resources (HR)
Bottom up Projects <ul style="list-style-type: none"> Electricity Efficiency Actions (EFAs) Transport Efficiency Actions (TFAs) Materials Efficiency Actions (MEAs) 	Green HR Policies <ul style="list-style-type: none"> Sourcing and acquisition of human resources Green recruitment & selection Green orientation Learning & development Green performance management Green compensation and reward management
	Reducing Transportation Emissions <ul style="list-style-type: none"> Active or public transportation Carpooling Work from home Travel policies Extra incentives for Green cars
	Designing a Green Office

GHG Emissions Accounting

The ISO 14064-1: 2018 standard classifies emissions into six main categories. The following table presents these categories and their respective sources within Cenviro's operational control.

GHG Protocol Mapping	SCOPE 1	SCOPE 2	SCOPE 3			
ISO 14064-1: 2018 standard	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Description	Direct GHG emissions & removals	Indirect GHG emissions from imported energy	Indirect GHG emissions from transportation	Indirect GHG emissions from products used by organisation	Indirect GHG emissions associated with the use of organisation's products	Indirect GHG emissions from other sources
Emission source related to KAWMC	Fuel Combustion Emissions from processes	Electricity use	Upstream & downstream logistics Employee's Commute & Work travel Vendors, Suppliers & Client's Travel	Purchased products Waste Generated	Downstream use of products developed by the organisation	Not Applicable

Absolute GHG Emissions by Category

GRI 305-1, 305-2, 305-3

In 2022, there was a noteworthy decline of 1.44% and 6.70% in the total absolute emissions in comparison to 2021 and the base year of 2020, consequently lowering the total to 89,501 tCO₂e. The main drivers behind these substantial reductions in emissions in 2022 were attributed to categories 1 and 2.

	Scope 1 - Direct GHG emission (tCO ₂ e)	Scope 2 - Indirect GHG emission (tCO ₂ e)	Scope 3 - Other Indirect GHG emission (tCO ₂ e)			
	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5	Total
2022	33,639**	8,389**	35,176**	10,871**	1,426**	89,501
2021	52,779*	9,154*	21,346*	7,526*	0*	90,805
2020	56,602*	7,889*	24,733*	6,371*	330*	95,925

*Note: Restatement of GHG emissions data from 2020 onwards is due to the change in standard from GHG Protocol to ISO14064-1:2018 standard.

**Note: The data for 2022 was recalculated based on new parameters

Progress in GHG Emissions Intensity Reduction

GRI 305-4

Our Carbon Management Plan for the period 2020 to 2025 ensures that our efforts to reduce GHG emissions are aligned with UN SDGs. We are also working on important objectives related to our move towards a low-carbon paradigm. This strategy helps us make significant progress in reducing our carbon footprint and staying true to our sustainability commitments.

The impact of our Carbon Management Plan extends beyond the environment to our bottom line. Our dedication to the plan has led to meaningful reductions in GHG emissions intensity, underscoring our commitment to sustainability. We are proud of our achievements so far and remain dedicated to furthering our initiatives to reduce GHG emissions intensity as part of our low-carbon transition strategy.

Our GHG Emission Intensity

KAWMC	2020	2021	2022
tCO ₂ e/ton waste treated at KAWMC	0.448	0.442	0.369

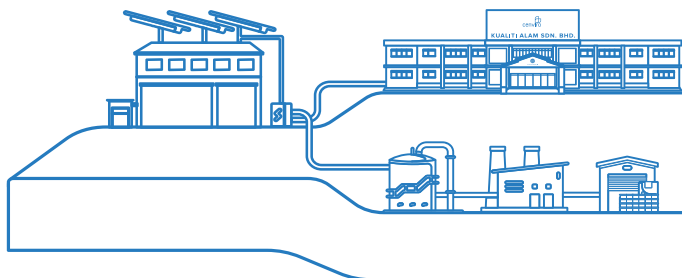
The unitised GHG inventory is formulated using the absolute emissions per metric ton (MT) of waste managed in our operations, referred to as GHG emissions intensity hereafter. Our 5-Year roadmap for reducing GHG emissions is rooted in this metric, as it provides a more inclusive approach to measuring our goals in relation to the quantity of waste managed.

The amount of solar energy generated in 2022 was **1,334,570 kWh**. Solar energy generation has multiple benefits to our operations, most notably reducing our dependence on fossil fuels and cutting-down our purchased electricity consumption from the national grid.

1,334,570

SOLAR ENERGY GENERATED

Solar energy generated (kWh)



Managing Our Environmental Footprint

GRI3-3

At Cenviro, we remain steadfast in our pursuit to minimise the environmental impact of our facilities. We are constantly exploring new avenues to implement cutting-edge technologies and industry best practices, all with the overarching goal of enhancing operational efficiency, reducing costs, and most importantly, mitigating our environmental footprint.

At KAWMC, all our facilities strictly adhere to the licensing regulations and principles established by the Department of Environment (DOE). To ensure compliance, we regularly conduct assessments as part of the licence renewal process. Additionally, several of our facilities, including KASB, CS, CRR, EISB, and SPSB, are accredited with the Environmental Management System ISO14001:2015.



As of 2022, our KAWMC facilities hold eight licences, while our satellite waste management facility in Sabah holds two, and our CRR facility holds one. These licences are testimony to our commitment to meeting regulatory requirements and operating in an environmentally responsible manner.

“We are constantly exploring new avenues to implement cutting-edge technologies and industry best practices”

Our Approach Towards Environmental Governance

We maintain a strict zero-tolerance policy towards any environmental incidents, making it a top priority to adhere to environmental regulations and laws. Instances of non-conformity and non-compliance are treated with utmost seriousness, and we take immediate action to rectify them. In the past, corrective and preventive actions (CAPA) were utilised to address non-conformity. However, since 2021, we have implemented an internal Non-Conformity Report (iNCR) that is issued internally to the responsible party to address and resolve such issues.

Compliance management is deeply ingrained throughout the organisation and overseen by key committees dedicated to environmental-related compliance. These committees include the Environmental Performance Monitoring Committee (EPMC) and the Environmental Regulatory Compliance Monitoring Committee (ERCMC). Additionally, we collaborate with third-party to execute the Environmental Monitoring Programme (EMP), ensuring a comprehensive approach to environmental compliance.

	EPMC	ERCMC
Functions	Supervises and oversees the environmental performance of KASB on the control and minimisation of pollution.	Reviews and advises the implementation of environmental pollution controls. Provides progress reports to the management.



Energy Management

GRI 302-1, 302-4

Our Energy Management practices place a high priority on efficiently managing both electrical consumption and fuel consumption across our operations. We employ continuous monitoring, analysis, and improvement initiatives to ensure the effectiveness of our energy management practices, all in line with our dedication to environmental sustainability. By effectively managing both electrical and fuel consumption, we actively reduce our carbon footprint and play a role in conserving valuable energy resources.

Energy Consumption	2022**
Total Fuel Consumption from non-renewable sources* (GJ)	186,424
Total Electricity Consumption (GJ)	60,163
Total Electricity Sold (GJ)	31,867
Total Energy Consumption (GJ)	214,720

*Includes fuel consumption from motor vehicle usage and diesel used for Cenviro' operations. Fuel conversion metrics based on those provided by the U.S Energy Information Administration.

**Restatement of the calculations, aligned to the calculation methodology set forth by GRI standards. Whereby total energy consumption= Diesel consumption (SWtE+ Incinerators) + Diesel (Scope 1 vehicle) + RO (operations) + Electricity (purchased from national grid) + Electricity generated (solar for self-consumption) - electricity sold (solar + SWtE).

Purchased Electricity Consumption

Given the energy-intensive nature of our operations, we are committed to reducing our electricity consumption by streamlining our processes. In 2022, our energy consumption totaled 15,497,948 kWh, indicating a 3.9% increase from the 14,908,069 kWh consumed in 2021. This increase in our purchased electricity consumption is attributed to extended operational hours and heightened process demands, particularly in waste disposal, treatment processes and operational tasks.

Purchased Electricity Consumption (kWh)

2022 **15,497,948**

2021 14,908,069

2020 13,817,313



Fuel Consumption

Fuel consumption is a vital metric for assessing the operational efficiency of our incinerators at KAWMC. These incinerators use both diesel and RO. In 2022, our incineration facilities utilised 541 tonnes of diesel and 3,547 tonnes of RO as fuel sources, establishing an RO:Diesel ratio of 6.56:1. The increased consumption of RO in 2022, replacing diesel for combustion in our incineration process, underlines our commitment to reducing our dependence on raw fossil fuels, while meeting energy demands and maintaining the required levels of efficiency and safety. This shift underscores our commendable control over plant operations, effectively managing fuel consumption.

Reconstituted Oil (Tonnes)

2022 **3,547**

2021 2,004

2020 1,367

Diesel (Tonnes)

2022 **541**

2021 854

2020 1,352

Ratio (RO:Diesel)

2022 **6.56:1**

2021 2.3:1

2020 1.01:1

Materials Management

GRI 301-1

Within our waste treatment processes, the utilisation of chemicals and raw materials, such as hydrated lime, activated carbon, and caustic soda, plays a vital role in the effective management of scheduled waste. However, we are dedicated to exploring eco-friendly alternatives during the extraction phase, ensuring strict compliance with environmental regulations.

In the year 2022, we observed an increase in the consumption of hydrated lime and activated carbon, while there was a minimal decrease in caustic soda consumption. The procurement and consumption of these chemicals are tailored to the waste properties we incinerate, as well as the increase in plant operating days in the year 2022, thus ensuring responsible waste disposal practices.

Type of Material (non-renewable) (tonnes)

Hydrated Lime

2022	829
2021	796
2020	779

Activated Carbon

2022	6.5
2021	2
2020	6.5

Caustic Soda

2022	1,262
2021	1,268
2020	1,072

Water & Effluent Management

GRI 303-1, 303-2, 303-5

At Cenviro, we value water as a finite and invaluable natural resource. Our commitment to environmental stewardship drives us to minimise our impact on water resources, including both water usage and discharge. In 2022, our water usage at WMC has reduced 13.4% in 2022 compared to 2021. The decreasing trend in our water consumption reflects our efforts to efficiently utilise resources in our operations.

Effluent generated has shown an increase from the previous year, with effluents generated by ETP (Effluent Treatment Plant) increasing by 4.4% and LTP (Leachate Treatment Plant) by 52.6%. The effluent generated by ETP is influenced by weather conditions, while LTP manages the leachate generated from our vertical secured landfill. As the landfill expands, the increased area leads to a higher volume of leachate being generated.

WATER CONSUMPTION & EFFLUENT DISCHARGE

Water consumption at KAWMC (m³)*

2022	168,329
2021	194,442
2020	203,426

Effluent generated and recycled (m³)

ETP Discharged

2022	61,633
2021	59,018
2020	54,113

LTP Recycled

2022	103,882
2021	68,055
2020	39,848

* WMC purchases fresh water from Syarikat Air Negeri Sembilan Sdn. Bhd. We do not withdraw water from any other source.

Internal Waste Management

GRI 3-3, 306-3,, 306-5

In addition to safely handling waste from our clients, we also responsibly dispose of the waste generated internally, including that from offices in Mercu UEM and KAWMC. Efficient systems are in place for the collection, recycling, and disposal of waste produced by our business operations, all managed by designated licensed contractors.

Total internal waste generated (kg)

2022 85,208

2021 55,660

2020 23,147

Total internal waste treated internally and landfilled (kg)

2022 468

2021 479

2020 505

Total internal waste collected by appointed domestic contractors and sent to approved facilities(kg)

2022 84,740

2021 54,867

2020 22,620

Biodiversity

GRI 304-1, 304-3

Biodiversity is a critical material topic for us as it reflects the health of our ecosystem. To safeguard biodiversity, we prioritise responsible environmental management to avoid any harm to natural habitats, flora, and fauna. At KAWMC, we closely observe terrestrial and aquatic species in the oil palm plantations near the quarry area, old oil palm plantations near to Kampung Jimah, farms near the rubber estate, the tributary of Sg. Unyai and the tributary of Sg. Kulai.

One of our key protected areas of high biodiversity value is located between Bukit Pelandok and Bukit Nenas distributed within a land area of over 0.97km². We also partner with the Negeri Sembilan State Forestry Department to actively take part in SHIELD Our Ecosystem to preserve and enhance mangrove forests within our operational vicinity. The programme's primary focus is the restoration of the mangrove ecosystem through the replanting of 500 mangrove seedlings, also known as propagules. This activity provides an opportunity for us to restore the degraded environment affected by human activities. Additionally, the programme serves as an educational platform for participants to experience the mangrove ecosystem, benefitting both humanity and the planet as a whole.



“

The programme's primary focus is the restoration of the mangrove ecosystem through the replanting of 500 mangrove seedlings, also known as propagules ”

To assess our environmental impact, we collaborate with third-party consultants on a quarterly basis who conduct biomonitoring and bioassays for both aquatic and terrestrial flora and fauna as part of our EMP. We conduct quarterly monitoring of indicators such as Stack Emission Quality, Ambient Air Quality, Landfill Gas Emissions, and Boundary Noise, while the monitoring of flora and fauna is performed annually. The results indicate a thriving ecosystem with high numbers within the index, demonstrating the abundance of food supply at these sites. During the monitoring period, a diverse array of flora species flourished, including woody trees, ferns, palms, shrubs and herbaceous plants. The fauna was equally vibrant, comprising a wide variety of creatures such as frogs, mammals, reptiles, birds, dragonflies and butterflies.

Biodiversity**Stack Emission Quality**

The findings show our emissions from stationary sources within KAWMC meets the DOE licensing requirements.

Ambient Air Quality

The site where we operate comply with air quality standards.

Landfill Gas Emission Quality

Monitored gases from the landfill gas pipe show good emission quality within KAWMC's landfill area.

**Boundary Noise Quality**

KAWMC boundary noise in 2022 is well within permissible limits.

Top Soil and Terrestrial Flora and Fauna

The flora species were observed to be thriving green with no discoloration or defect at all monitored stations, while the fauna species were likewise observed to be normal with no trace of growing defect.



cenviro

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cenviro

CARING FOR OUR PEOPLE AND COMMUNITIES

AT CENVIRO, PRIORITISING A SAFETY-
FIRST CULTURE, EMPOWERING
OUR EMPLOYEES, AND DELIVERING
SUSTAINABLE VALUE TO THE
COMMUNITIES WE SERVE ARE INTEGRAL
TO OUR CORE ORGANISATIONAL VALUES

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Empowering Our Employees 81

Supporting our Communities 88

Providing a Safe, Healthy & Fair Workplace

GRI 3-3, 403-2, 403-4

At Cenviro, our dedication to fostering a fair and safe workplace is deeply rooted in two fundamental SHIELD values: Safety & Health and Diversity & Inclusiveness, forming our social pillar.

We deeply appreciate the significant contributions of our Cenviro team to the communities we serve, whether through their work in our facilities or interactions with consumers and contractors. Our commitment to transparency fosters a diverse and inclusive work culture that values differences and attracts talent from various backgrounds. Additionally, we prioritise the well-being of our workforce, offering development opportunities and ensuring a safe environment. With these efforts, Cenviro aims to make a positive societal impact and empower our people to thrive.

TARGET				
200 days without LTI	Zero Fatality	Prevent Fire, Leakage, Injury & Pollution (FLIP)	Reduce Fire & Spillages by 50% (Target was to keep below 6 cases)	5,000 HIP case submissions
Achieved 390 days without LTI	Zero fatality cases recorded in 2022	Zero major incidents	Zero cases of spillage and 5 minor cases of fire.	Achieved 7,771 HIP submissions

Awards for 2022



FMM Negeri Sembilan S.H.E Excellence Award 2023
Silver Winner, Fire Safety and Emergency Response Code

FMM Negeri Sembilan S.H.E Excellence Award 2023
Bronze Winner, Environmental Sustainability Code

We achieved an impressive 390 consecutive days without LTI, and our fatality remained at zero. Additionally, there were no recorded LTI incidents among our contractors in 2022. Four LTI incidents were identified out of 39 HSSE cases, resulting in a Lost Time Incident Rate of 1.2 for Cenviro employees. This represents an additional three LTI incidents compared to 2021, which can be attributed to our adherence to a more stringent LTI definition. Under this revised definition, any operational incident resulting in bodily injury requiring one day or more of medical leave is classified as an LTI.

A total of 374 employees, received health and safety training amassing a total of 8,322 total training hours with an average of 22 hours per person. Our dedication to securing a healthy and safe environment for all extends to contractors, with 600 contractors trained - a substantial increase from 166 contractors in 2021. This resulted in 4,800 total training hours, averaging 8 hours of training per contractor.

Lost Time Incident Rate

Number of LTI incidents x
200,000 / Total man-hours



Note: Lost Time Incident Rate is defined as the number of LTI incidents x 200,000 divided by total man-hours

We are taking proactive steps to refine our LTI definition to ensure its robustness, as well as hiring an additional safety officer for CRR, underlining our commitment to fostering a safe environment. We continue to investigate work-related incidents to identify areas for improvement through our Incident Investigation and Reporting to ensure a safe workplace for all.



Embedding a Safety 1st Culture

At Cenviro, workplace safety is paramount and deeply ingrained in our core values. We prioritise providing our employees with essential tools, knowledge, and training to foster a safety-focused culture. Through continuous improvement and strict adherence to safety protocols, we aim to create an environment where every team member actively contributes to a safety-first culture where the ultimate goal is to ensure the well-being of our employees and the communities we serve.



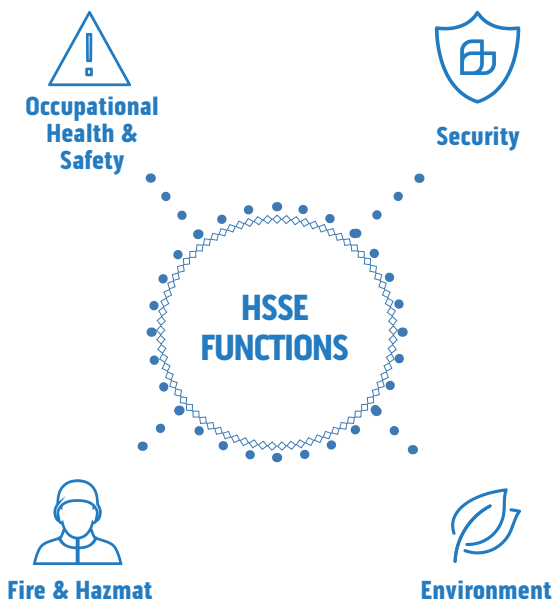
The HSSE department plays a critical role in administering policies and procedures to ensure the security of our operations



Functions of the HSSE Department

GRI 403-1, 403-3, 403-7

The HSSE department plays a critical role in administering policies and procedures to ensure the security of our operations. Our HSSE Framework provides clear guidance to all business units for clear HSSE direction and explicitly defining the roles. Cenviro implements a decentralised approach to the functions of the HSSE Department, empowering departments to actively contribute to decision-making and safety initiatives and embed health and safety responsibilities across our operations. Our employees are also empowered through various programmes such as the HIP, Emergency Response Plan, and incident analysis, which cultivates shared learning and continuous improvement.



Our Emergency Response Team (ERT), working in tandem with our technical team, provides additional logistical support to our Fire & Hazmat department. This collaboration plays a vital role in addressing and managing risks during emergencies. The comprehensive training of our ERT covers critical areas such as Fire Fighting, Hazmat, First Aid and Evacuation Control. In emergency situations within the yellow zone, ERT members are deployed wearing full Personal Protective Equipment (PPE) to support the technical team, who are equipped with partial PPE.

For more information on the ERT's specific responsibilities please refer to pg 71 of Cenviro's Sustainability Report 2021.

Our Health and Safety Management System

GRI 403-1

Promoting decentralised health and safety is crucial to fostering a culture of individual accountability for HSSE. To facilitate this, we have established eight committees with distinct roles and responsibilities, convening quarterly to address health and safety issues.

At the operational level, we conduct routine inspections, provide comprehensive training, and implement Hazard Identification, Risk Assessment and Risk Control (HIRARC) control measures to ensure a safety-first culture prevalent throughout the organisation.

Health & Safety Committees

- Safety and Health Steering Committee
- Kualiti Alam Safety and Health Committee
- Cenviro Recycling and Recovery Safety and Health Committee
- Sales, Marketing and EPIC Safety and Health Committee
- Supply Chain Safety and Health Committee
- Contractor Safety and Health Committee
- Mercu Safety and Health Committee
- Cenviro Johor Safety and Health Committee



HSSE Key Policies & Certifications

GRI 403-1, 403-2, 403-4, 403-7

Zero Compromise (ZECO) Rules	Quality, Health, Safety, Security and Environment (QHSSE) Policy	HSSE Intervention Policy GRI 403-4	Drugs, Alcohol & Substance Abuse Policy
<p>Our ZECO rules stand as one of the various secure work systems currently established, effectively translating policy into action.</p>	<p>Our QHSSE policy, revised in January 2021, serves as a guiding roadmap for health and safety matters across the organisation. A key aspect of our QHSSE policy is compliance with regulations set by relevant authorities, aimed at safeguarding the well-being and satisfaction of all stakeholders, including customers, contractors and employees.</p>	<p>The HSSE Intervention Policy has been in effect since 2020, empowering all individuals employed or engaged by the organisation to proactively take charge of their safety. They are encouraged to intervene in any unsafe act or circumstance that could lead to an incident. If an intervention occurs, others can use the HIP to promptly report the issue, allowing for appropriate follow-up actions to be taken.</p>	<p>This policy strictly prohibits the use, possession, purchase, sale, distribution, manufacturing, or being under the influence of any drugs, alcohol, or illegal substances within all our premises while working at Cenviro.</p>

ISO 9001:2015 (Quality Management System)	ISO 45001:2018 (Occupational Health and Safety System)	ISO 14001:2015 (Environmental Management)
<p>KASB, CRR, and CS are certified for ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management) ISO 45001:2018 (Occupational Health & Safety Management System). These three management systems are integrated Integrated Management System (IMS) overseen by our Corporate Governance & Assurance (CGA) body.</p> <p>In October 2022, we conducted the annual IMS Internal Audit where our skilled internal auditors carried out routine checks for compliance. The scope of the audit includes Cenviro Sdn. Bhd., Cenviro Services Sdn. Bhd., Kualiti Alam Sdn. Bhd., Cenviro Recycling and Recovery Sdn. Bhd., and the regional offices.</p> <p>From 9 November to 16 December 2022, we appointed external auditors to conduct the IMS Surveillance 1 Audit assessments in order to identify and address all non-conformances while identifying opportunities for improvement. The audit encompassed KASB, CRR, and CS in Cenviro, resulting in successful recertification for ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018.</p>		

Cultivating a Safety 1st Culture

Hazard Identification Programme

GRI 403-2, 403-4

HIP aims to cultivate a culture of safety among staff, contractors, and visitors by providing an avenue to report any risks or near-miss accidents, thereby empowering users to detect and address potential health and safety issues.

2022 Progress

Striving for continual improvement, HIP Closure Notification was launched in 2022 to remind HIP Ambassadors to take action on reported hazards. Employee submissions were **7,771** in 2022, exceeding the **5,000 annual target**.

Safety Moments

GRI 403-4

Safety Moments are an integral part of Cenviro's culture, emphasising safety as our top priority. These exercises are implemented by management to reinforce safety awareness in all client interactions. Furthermore, we release monthly Safety Moments circulars addressing safety topics, including insights from recent incidents and SOPs. These practices create a secure work environment, aligning with the HSSE department's core objective of ensuring employee well-being and a hazard-free workplace.

HSSE Focus Recognition Programme

HSSE Focus Recognition (HSSE FR) is designed to acknowledge the outstanding efforts of Cenviro's employees and contractors in promoting workplace health and safety, security, and environmental issues. The programme recognises and honours individuals with exceptional dedication and commitment to HSSE. It significantly boosts workplace morale, enhances safety protocol compliance, and ultimately improves overall productivity within the HSSE department. In 2022, four contractors received the HSSE FR award.



Facilitating Health & Safety Training

GRI 3-3, 403-5, 403-6

Cenviro's HSSE Department is fully committed to prioritising hazard elimination. A vital step in minimising the risk of illnesses and injuries in the workplace involves implementing comprehensive occupational health and safety training throughout the organisation.

HSSE Training and Webinars for Employees and Contractors

In 2022, Cenviro offered a comprehensive range of training programmes and webinars for our employees to ensure they are equipped with the necessary health and safety knowledge and skills to perform their tasks safely. These include:

Mental Health Webinar	Hand Safety Campaign	Ergonomic Webinar	Breast Cancer Webinar
Radiation Safety Awareness Training	Authorised Entrance & Standby Person (AESP) Training	Fire Immediate Response Safety Training (F.I.R.S.T)	Risk Assessment (RA) Training
Hazard Identification, Risk Assessment and Risk Control (HIRARC)	Mega OSH Toolbox for Contractors	Chemical Register List Training	Basic Occupational First Aid (BOFA) Training
NIOSH Cenviro Safety Passport	Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) Drill Exercise		

HSSE WEEK 2022

Cenviro's HSSE Week 2022 was held from 22 to 25 March involving a total of 800 participants. The theme centred around "HSSE is Me", where the main focus was to strengthen our intervention culture and introduce the enhanced ZECO Rules and Intervention Policy. The week commenced with an intervention pledge signing aimed at increasing awareness on the importance of intervention culture to encourage employees to proactively prioritise safety, health, security and good environmental practices. Throughout the week, various activities and talks were organised to promote HSSE awareness and reinforce our commitment to fostering a safety-first culture.





Hand Safety Campaign

On 4 August 2022, the Hand Safety campaign was introduced to educate KAWMC employees on the importance of proper hand protection. As part of this endeavour, the usage of latex gloves was phased out and replaced with nitrile gloves, ensuring enhanced safety across all our operations. This campaign serves as a crucial step in our ongoing efforts to curb incidents of hand injuries resulting from improper glove usage. Launched by Cenviro's Managing Director, and participated by the Senior Management Team, the campaign covers work processes such as chemical handling, dealing with sharp objects, vibrations and hot surfaces.

Contractor Dialogue

GRI 2-27, 403-7

Cenviro's annual HSSE Contractor's Dialogue serves as a vital platform for direct communication between our business partners and our top management. This initiative allows for transparent discussions regarding various health, safety and environmental issues. The most recent HSSE contractor dialogue took place on 28 December 2022, focusing on Cenviro's new HSSE requirements, as well as an introduction to ESG concepts and presenting the HSSE FR Award to our high-performing business partners.



600

Contractors Trained



4,800

Total Contractor Training Hours



8

Average Training Hours per contractor



31

Penalty Tickets Issued

HSSE Contractor Penalty Matrix

The HSSE Penalty Matrix, categorises misconduct into major or minor offences, with contractors subjected to fines for minor infractions. If a contractor accumulates three minor offences, it is considered a major offence. Contractors found guilty of one major offence are fined, while a second major offence results in a ban.

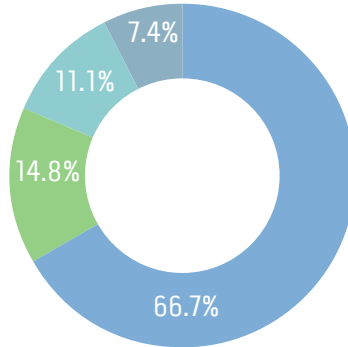
HSSE Contractor Audit

In 2022, 27 companies participated in the HSSE Contractor audit, resulting in most companies receiving a B grade. The chart below offers a detailed breakdown of the audit results.

Percentage

Grade

A (89.5%-100%)	
B (69.5%- 89.4%)	
C (59.5%-69.4%)	
D (39.5%-59.4%)	
E (0-39.4%)	



ENGAGEMENTS

Regulators & Authorities	Community	Others
<p>Regular engagements with Department of Occupational Safety and Health (DOSH)</p> <p>Inspection of State Critical Objectives 28 June 2022</p> <p>Seminar on Scheduled Waste Management and Surrender of PYDT License 18 August 2022</p> <p>Negeri Sembilan Department of Environment (DOENS) Meeting for Landfill Phase 2 20 September 2022</p>	<p>Regular engagements with National Institute of Occupational Safety and Health (NIOSH) to review Cenviro Safety Passport</p> <p>Engagement with BOMBA Seremban 2 9 February 2022</p> <p>Visit from IPK NS to discuss SPN and Auxiliary Police 7 June 2022</p> <p>Atomic Energy Licensing Board (AELB) 11 May 2022</p> <p>Engagement with the Mayor of Port Dickson Municipal Council 22 September 2022</p>	<p>Cooking & Food Distribution of Bubur Lambuk Programme 20 April 2022</p> <p>Mangrove Tree Planting Program with MSU and Negeri Sembilan State Forestry Department 10 December 2022</p> <p>Engagement with Sime Darby 23 February 2022</p> <p>Worldwide FireFighter Day 22 May 2022</p> <p>Cenviro Emergency Management Level 3 Exercise (CemL3x) 6 December 2022 & 7 December 2022</p>

Empowering Our Employees

GRI 3-3, 403-2, 403-4

Training and Developing Our People

GRI 3-3, 404-1

At Cenviro, we prioritise our employees' growth and development, providing them with a wide range of learning opportunities tailored to meet their specific needs in the field of waste management. Through these comprehensive learning and development solutions, our team members can enhance their job performance, deepen their skills, and expand their educational backgrounds.

By making these programmes widely available, we aim to enable our workforce to thrive and succeed within the organisation. Our focus extends to developing professionals who will lead innovation in Malaysia's waste management system. We offer thorough in-house technical training courses and external certifications to ensure our employees gain the expertise and skills needed to excel in their roles and advance their career. This commitment empowers our team to tackle the challenges of waste management and drive positive change in the industry.

In 2022, we delivered training to 507 Cenviro employees and 1,752 EISB employees, registering a growth of 4.5% and 5.4% respectively, compared to 2021. Notably, Cenviro experienced a significant 44% increase in average training hours per employee, reaching an average of 36 hours. Meanwhile, EISB's average training hours remained consistent at 16 hours per employee.

CENVIRO

Total Employees Trained

2022	507
2021	485
2020	479

Average Training Hours

2022	36
2021	25
2020	18

EISB

Total Employees Trained

2022	1,752
2021	1,662
2020	1,556

Average Training Hours

2022	16
2021	16
2020	16

“Our focus extends to developing professionals who will lead innovation in Malaysia's waste management system”

Competency Training

GRI 404-1, 404-2

With the waste management industry being highly technical, it requires numerous certifications and core competencies for our employees. At Cenviro, we recognise the importance of maintaining a highly qualified workforce across all competency areas, in alignment with the industry's regulatory standards and objectives.

Competency Training

38 Cenviro employees received full competency certification

11 EISB employees received full competency certification

17 employees earned one-year competency certificates in various technical aspects of health and safety at the Environmental Institute of Malaysia (EiMAS)

Leadership Training and Development

GRI 404-2

Our vision of becoming an industry leader and delivering innovative services to our customers greatly depend on the leadership abilities of our employees.

To achieve this, we continuously offer development programmes that elevate the quality of leadership within our organisation. In 2022, we offered seven leadership training sessions to Cenviro employees and six for EISB employees.

Leadership Training

128 Cenviro employees attended leaderships training sessions

118 EISB employees attended leadership training sessions



Succession Planning

GRI 404-2

Throughout 2022, we placed significant emphasis on succession planning within our leadership and development programmes. With a commitment to nurture future leaders, Cenviro conducts a comprehensive skill gap analysis for the nominated successors and crafted a series of training activities to bridge these gaps. We have also implemented a formal mentorship programme to guide mentees in honing the skills necessary for a seamless transition into leadership positions.

Complementing our succession planning efforts, we have High Potential (HiPo) and Talent Mobilisation programmes to bolster the growth of potential leaders within our organisation. By identifying and nurturing talented individuals, these programmes provide essential resources and opportunities, enabling them to make meaningful contributions to our future leadership positions.



HiPo Programme

Since its inception in 2020, employees displaying leadership potential who have received a Platinum or Gold performance review grade can be nominated for the HiPo programme by their respective Heads of Departments. Those nominated will be evaluated based on the Performance Potential Matrix and only those categorised as "Star" or "Rising Star" will undergo a three-stage evaluation process, where their skills, including critical thinking and communication, are assessed. In addition, a Mentor-Mentee initiative has been implemented for the HiPo programme.



**In 2022, 70 out of 79
nominated employees
successfully completed the
HiPo evaluation process.
33 of these successful
nominees enrolled in the
HiPo programme.**



EPIC's Learning and Development

GRI 404-2

Cenviro's EPIC offers a comprehensive range of training and certification programmes, addressing a wide array of topics that encompass the full spectrum of waste management and environmental sustainability. Since 2020, EPIC has established partnerships with research and education institutions to collaboratively develop courses and certification programmes relating to waste management.

Programme Type	Participants
Public Training Programme	3,278
Scheduled Waste Awareness	
Chemical Handling & Waste Management	
Clinical Waste User Training	
In-House Training Programme	636
Incident Investigation & Root Cause Analysis	
Introduction to Integrated Scheduled Waste Management	
Safe Handling of Chemicals	

Note: The programmes disclosed are selected from the numerous training programmes organised by EPIC

EPIC highlights

Number of participants

2022	3,914
2021	2,600
2020	1,718

Number of training programmes

2022	141
2021	115
2020	19

Engaging Our People

GRI 3-3

The well-being and success of our employees is highly reliant on an environment where they feel engaged, connected, and supported. Throughout the year, we organised several events to foster interactions with our workforce, with these gatherings proving pivotal for effective communication. In addition to our regular initiatives which include the monthly HR Service Counter and the Long Service Awards, we organised seven initiatives to engage our employees in 2022.



Key Initiatives	Objectives
Hari Raya Gift Packages	To express gratitude towards employees who worked during the Hari Raya holidays
Long Service Award	To show appreciation for our long service employees
Monthly HR Service Counter	To enable employees to address payroll and other HR matters
HR Plant Tour	To facilitates swift feedback exchange between employees and the company, allowing employees to voice ideas as well as concerns for workplace improvements and enhancements
Health Surveillance	To monitor employee's health condition and early prevention
Health Talk	To promote health awareness (e.g breast and prostate cancer awareness, and mental health) among employees
Union Engagement	To foster and maintain positive and harmonious relationship between Cenviro and the Union

Employee Performance Management

GRI 3-3, 404-3

Our biannual performance management process fosters career advancement, job satisfaction, and personal development. It aligns individual growth with organisational objectives through collaborative goal-setting, feedback, and improvement identification. A distinct assessment procedure applies to employees awaiting confirmation. Post-confirmation, employees receive goals with improvement areas, a development plan, and a deadline for completion. In 2022, 93% of Cenviro and 90% of EISB employees received performance appraisals.

Employee Performance Appraisals

Category



	Senior Management*	Management	Executive	Non-Executive
Cenviro	10	54	143	265
EISB	-	26	98	1,452

Our Performance Improvement Plan (PIP) is an ongoing initiative empowering line managers and underperforming employees to target key areas for improvement. Additionally, those who are unable to achieve their KPIs also undergo the PIP with the aim of improving their performance.

Gender



	Male	Female
Cenviro	354	118
EISB	1,416	160

Total



	Employees	Appraised	Appraisals
Cenviro	507	507	93%
EISB	1,752	1,576	90%

In 2022, ZERO employees underwent PIP, indicating that our workforce consistently meets or surpasses performance expectation

* Senior Management refers to Group Managing Director, Chief Operating Officer, and General Managers

Promoting a Diverse and Inclusive Culture

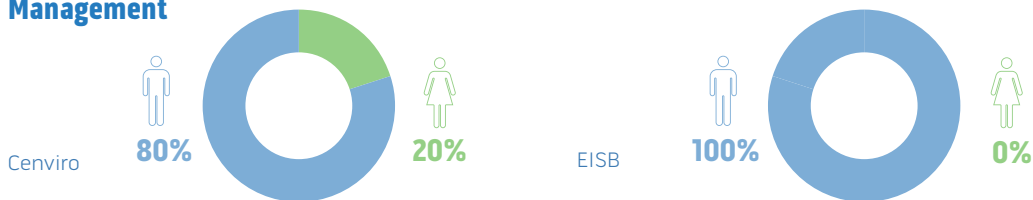
GRI 3-3, 405-1

We are committed to cultivating an inclusive work environment that embraces diversity in terms of gender, ethnicity, ability, and experience. We also ensure our frontline personnel reflect community demographics, reinforcing our connection with the diverse populations we engage with.

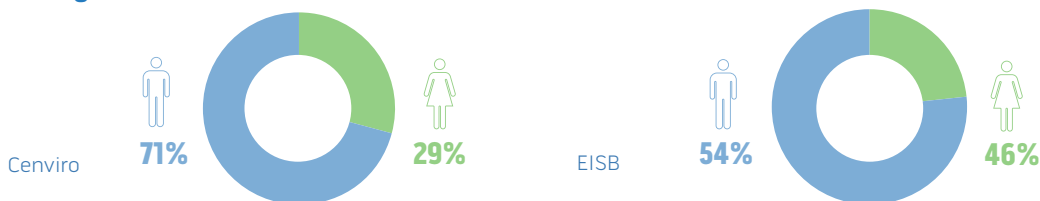
We aspire to increase women's representation in our workforce to 40% by 2025, ensuring equal opportunities for all potential employees regardless of race and gender. We prioritise the advancement and empowerment of women within our workforce, and currently, women represent 16.7% of the Board of Directors, hold 20% of senior management positions and 29% of management positions in Cenviro.

Employee Diversity

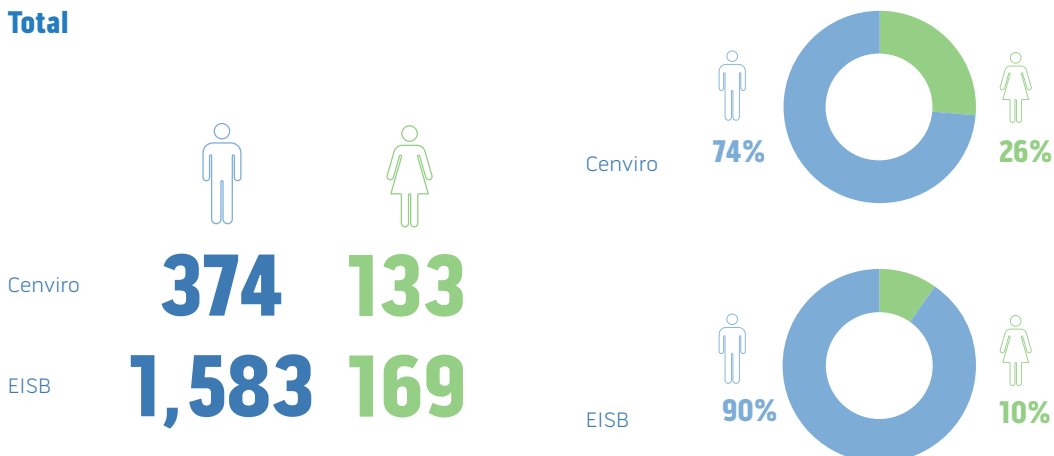
Senior Management



Management



Total



Supporting Our Communities

Recycling Education

GRI 413-1

Cenviro has remained steadfast in our commitment to enhancing community-based recycling initiatives throughout the nation. We have consistently gained momentum, driving positive change and fostering a sustainable recycling culture in the communities we serve. In 2022, we formed a strategic partnership with DOENS to design an e-waste collection and recycling programme, specifically targeting schools in the Negeri Sembilan state. Building on this collaboration, our efforts resulted in an impressive collection of 31,943 kg of e-waste in 2022.

Furthermore, our RFL programme has successfully engaged a diverse range of stakeholder groups nationwide since its inception in 2017. In 2022, we continued to expand upon the RFL programme, collaborating with Petronas Chemical Group to integrate RFL within their premises and collecting a remarkable 42,678 kg of waste. We have also collaborated with IOI Properties to introduce RFL in their Waste-to-Treasure community programme. In extending our programme's reach, we have positively impacted 36 schools in Negeri Sembilan, as well as 27 schools and five communities in Selangor for 2022.

“

We have consistently gained momentum, driving positive change and fostering a sustainable recycling culture in the communities we serve ”

**5**

Communities

**63**

Schools

**19**

Corporate Partners

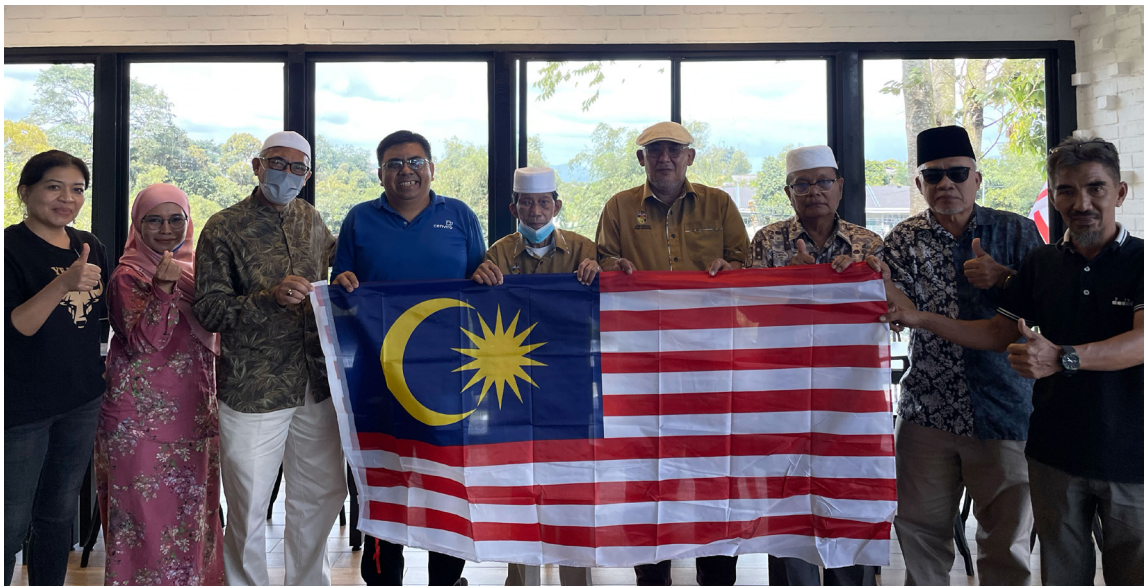


Giving Back to the Communities

GRI 3-3, 203-1, 203-2, 413-1

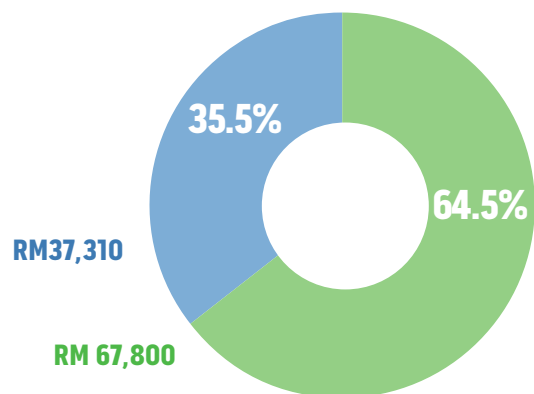
At Cenviro, we are committed to delivering social, economic, and environmental value to the communities we serve. Our dedication to fostering positive impacts and sustainable outcomes is central to our approach as a forward-thinking resource company. Our community engagement focuses on initiatives aligned with our values, products, and services, creating meaningful change. We educate the public on resource recycling and recovery through our community programmes.

In 2022, our total investment in community betterment grew by 189% compared to the previous year, to RM 105,110. Notably, we provided contributions for Ramadan and Hari Raya amounting to RM 43,400 to the communities surrounding KAWMC, and RM 10,200 to the asnaf families and orphans surrounding CJSB. Furthermore, we allocated RM 24,900 to sponsor the e-waste competition for schools organised by DOENS.



Total spent on community programmes (RM)

2022	105,110
2021	36,410
2020	>66,300*



* FY2020 and first quarter of FY2021 included

■ GOVERNMENT ■ COMMUNITY

Engaging with Our Stakeholders

GRI 2-28, 3-3, 203-1, 203-2, 413-1

As Cenviro aspires to be an industry leader and a modern resource company that reimagines resources, we continue to reinforce our relationships with regulators, relevant authorities, communities, and other key stakeholders. By doing so, we ensure that we are not only fulfilling their needs but also aligning our strategies with their expectations and aspirations. Our engagements with regulators and relevant industry bodies have made us more cognisant of the latest trends and innovations in the waste management landscape. This knowledge empowers us to capitalise on existing and future growth opportunities more effectively, allowing us to push the boundaries of traditional resource management and truly reimagine resources for a more sustainable and prosperous future.

Conferences



IGEM 2022

Contributed as thought leaders at the International Greentech & Eco Products Exhibition & Conference (IGEM) 2022 in October 2022, organised by the Ministry of Environment & Water.

Collaborations



A Memorandum of Understanding was signed between Cenviro and Sabah Oil & Gas Development Corporation Sdn Bhd.

Launching of Hari Alam Sekitar Negara (HASN) 2022 for Negeri Sembilan by Menteri Besar, YAB Dato' Seri Haji Aminuddin Bin Harun In conjunction with HASN, DOENS in collaboration with RFL and Negeri Sembilan.



The PCG Be Green RFL Collection occurred during Petronas Chemical Group's annual "Be Green" campaign from September to November 2022, promoting responsible plastic usage and green behaviour.

State Education Department organised an e-waste recycling campaign tailored for schools within the region.

STRENGTHENING OUR GOVERNANCE

**CENVIRO IS DEDICATED TO
UPHOLDING A STRONG CORPORATE
GOVERNANCE SYSTEM.**

Driving Performance Through Strong Leadership 92

Robust Risk Management 98

Ethical Business Conduct 102

Sustainable Supply Chain 105

ROTARY KILN

Driving Performance Through Strong Leadership

Cenviro is dedicated to upholding a strong corporate governance system, adhering to our Code of Conduct, and integrating sustainable practices into our operations.

Our commitment to safeguarding integrity, accountability and stakeholder trust drives us to pursue responsible leadership and establish comprehensive policies that foster sustainable business growth. Henceforth, we are determined to maintain a culture of continuous improvement and responsible business conduct.

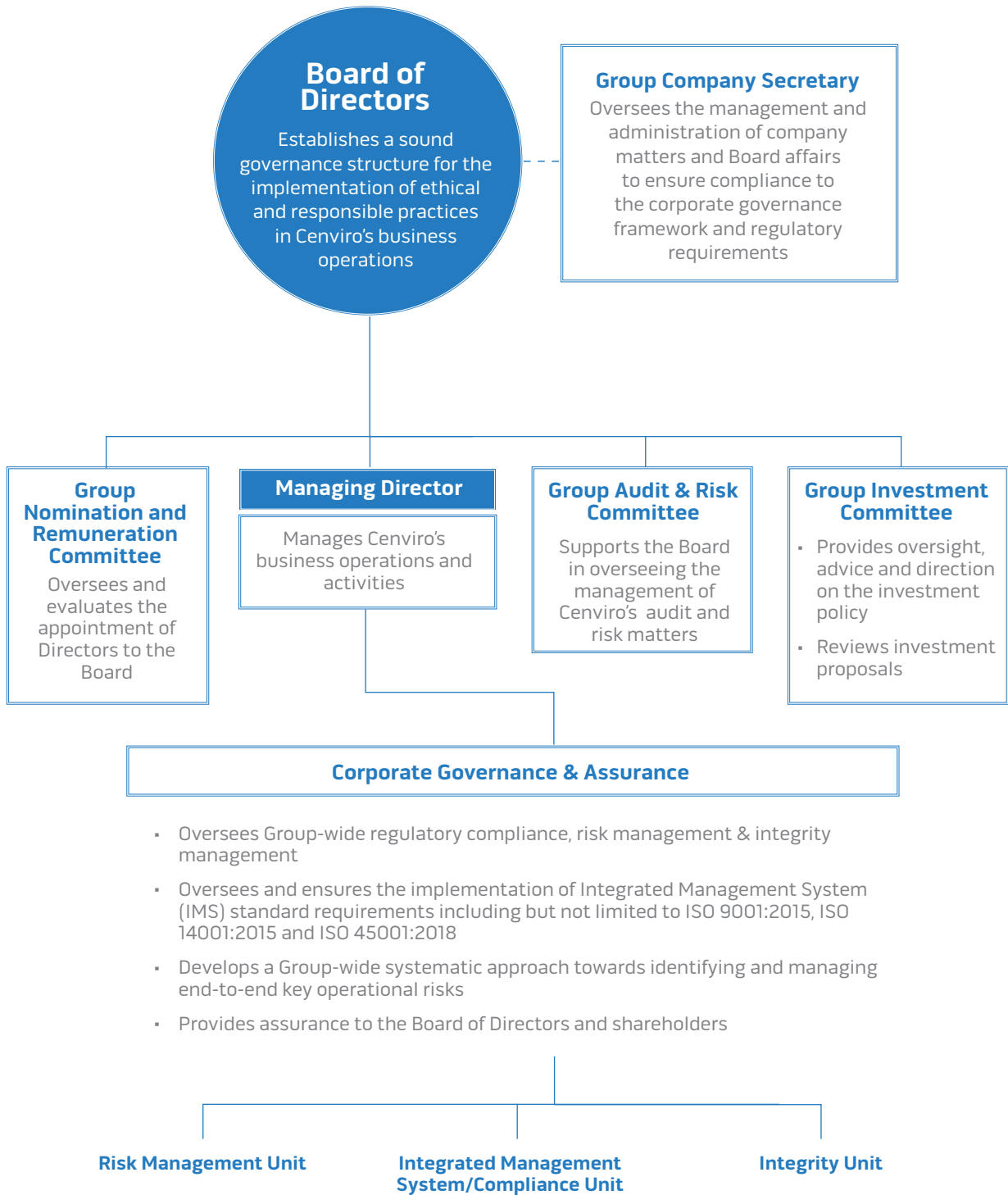


Corporate Governance

GRI-2-9

As a responsible and reliable waste resource management solutions provider, Cenviro maintains its credibility by upholding reputable standards of corporate governance. Our Board of Directors is supported by various committees, including the Group Audit and Risk Committee, Group Nomination and Remuneration Committee and Group Investment Committee. The establishment of the Corporate Governance and Assurance (CGA) within the Senior Management team in 2020 further strengthens Cenviro's ability to meet the growing demands of local regulations effectively.

Corporate Governance



Board of Directors

GRI 2-9, 2-10, 2-11, 2-20, 405-1

Our board consists of six highly dedicated and skilled directors with diverse backgrounds, each contributing a range of knowledge and experience to guide the company's strategic and financial decisions.

Cenviro maintains a structure with an Independent Non-Executive Chairman of the Board and a separate Managing Director. This division enhances the Board's independence and enables the Managing Director to concentrate on overseeing our operations. The Board Chairman presides over Directors' meetings and is responsible for instilling good corporate governance practices, leadership, and Board effectiveness.

The Group Nomination and Remuneration Committee is responsible for Board appointments. Candidates are assessed based on criteria such as personal and professional integrity, sound judgement, professional expertise and experience, independence, potential conflicts of interest, diversity, and the ability to serve the long-term interests of shareholders. This meticulous evaluation process ensures that the Board is composed of individuals who contribute effectively to the company's growth and sustainability.



We are delighted to welcome Effizal Faiz Zulfkifly from Khazanah Nasional Berhad to our Board of Directors. In response to SK ecoplant's acquisition of a 30% stake in Cenviro in 2022, we are pleased to announce the addition of two new Directors from SK ecoplant to our Board: Park Deok Seop and Lee Dae Hyuck. This expansion of our Board brings valuable expertise and diverse perspectives to our organisation, enhancing our commitment to growth and success in the future.



**Tan Sri Dr Azmil Khalili
Bin Dato' Khalid**

*Independent
Non-Executive Chairman*

DATE OF APPOINTMENT
01.10.2018

AGE
62

MEETING ATTENDANCE
5/6

MEETING ATTENDANCE %
83%



Dr. Johari Bin Jalil

Managing Director

DATE OF APPOINTMENT
03.06.2019

AGE
55

MEETING ATTENDANCE
5/6

MEETING ATTENDANCE %
83%



Yeo Kar Peng

*Independent
Non-Executive Director*

DATE OF APPOINTMENT
20.06.2017

AGE
61

MEETING ATTENDANCE
6/6

MEETING ATTENDANCE %
100%



Effizal Faiz Zulkifly

*Non-Independent
Non-Executive Director*

DATE OF APPOINTMENT
30.04.2022

AGE
43

MEETING ATTENDANCE
4/4

MEETING ATTENDANCE %
100%



Park Deok Seop

*Non-Independent
Non-Executive Director*

DATE OF APPOINTMENT
16.12.2022

AGE
48

MEETING ATTENDANCE
0/0

MEETING ATTENDANCE %
0%



Lee Dae Hyuck

*Non-Independent
Non-Executive Director*

DATE OF APPOINTMENT
16.12.2022

AGE
53

MEETING ATTENDANCE
0/0

MEETING ATTENDANCE %
0%

**Age of Board of Directors is as of 2022*

Note: Restatement of age of board of directors moving forwards is based on the current reporting period due to adherence to GRI reporting principles

We also extend our gratitude to our three former directors for their exceptional years of service with us.



Loh Tzu Anne

*Non-Independent
Non-Executive
Director*

DATE OF APPOINTMENT
24.04.2014

DATE OF RESIGNATION
02.12.2022

AGE
47

MEETING ATTENDANCE
6/6

MEETING ATTENDANCE %
100%



**Raja Ahmad Murad
Bin Raja Bahrin**

*Independent
Non-Executive
Director*

DATE OF APPOINTMENT
18.06.2021

DATE OF RESIGNATION
02.12.2022

AGE
62

MEETING ATTENDANCE
6/6

MEETING ATTENDANCE %
100%



**Serena Tan Mei
Shwen**

*Non-Independent
Non-Executive
Director*

DATE OF APPOINTMENT
02.04.2019

DATE OF RESIGNATION
30.04.2022

AGE
44

MEETING ATTENDANCE
2/2

MEETING ATTENDANCE %
100%

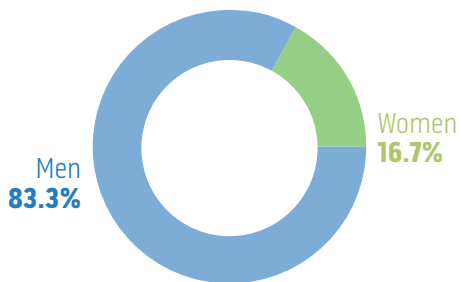
**Age of Board of Directors is as of 2022*



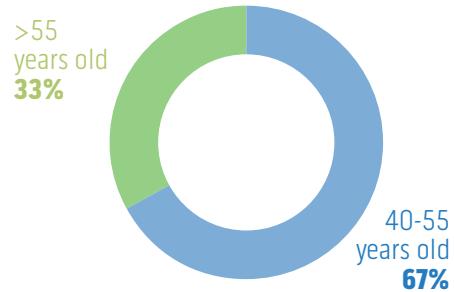
As we navigate the traditionally male-dominated landscape of waste management, we are proactively integrating gender diversity into our operational framework. Our steadfast commitment is ingrained in our Company Code of Conduct and reinforced by our core values encapsulated in SHIELD, ensuring equal treatment and opportunities for all employees.

The inclusion of directors from SK ecoplant. into our Board of Directors clearly illustrates our commitment to diversity and expertise-driven decision-making.

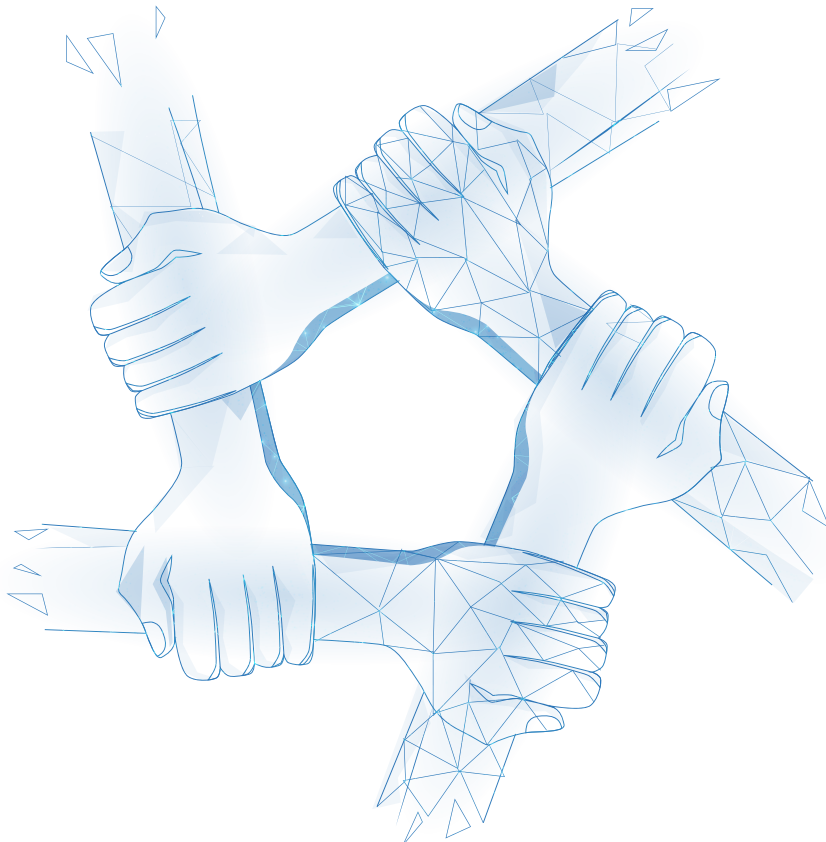
Board Gender Diversity



Board Age Diversity



**Age of Board of Directors is as of 2022*



Sustainability Governance

GRI 2-12, 2-13, 2-14

Being a provider of waste resource management solutions, sustainability is deeply embedded into our fundamental business operations. In January 2022, we have successfully established our sustainability working committee and have future plans to institute a Board Sustainability Committee. This has solidified our dedication to transparency and accountability in our sustainability endeavours.

Roles	Responsibilities
Board of Directors	<ul style="list-style-type: none"> Promote long-term, sustainable success for Cenviro. Advise and provide direction to advance Cenviro's Sustainability Agenda. Approve sustainability strategies, policies, and roadmaps. Monitor the sustainability-related Corporate KPIs of the Group.
▼	
Senior Management	<ul style="list-style-type: none"> Review sustainability strategies, policies, roadmaps and periodic reports from Sustainability Working Committee. Set sustainability-related Corporate KPIs.
▼	
Sustainability Working Committee	<ul style="list-style-type: none"> Drive Cenviro's Sustainability Agenda Propose sustainability-related policies for approval. Organise programmes to advance ESG and promote awareness. Ensure ESG gaps are identified and actioned upon to close those gaps. Meet sustainability-related corporate KPIs
▼	
Sustainability Secretariat	<ul style="list-style-type: none"> Drive sustainability integration across the Group. Lead the implementation of the sustainability strategy and goals. Position our sustainability initiatives within all the existing policies and procedures of the Group. Provide monthly sustainability progress reports to the Senior Management and quarterly updates to the Board.

Sustainability-Linked Sukuk Issuance

In alignment with Cenviro's Sustainability-Linked Sukuk Framework, we embrace the same Key Performance Indicator (KPI) and Sustainability Performance Target (SPT).

Robust Risk Management

Enterprise Risk Management Strategy

To ensure the sustained success of our operations, we have implemented a robust Enterprise Risk Management (ERM) strategy, which involves identifying, assessing, preparing for, and managing potential business risks, both in the short and long terms. We maintain a Corporate and Departmental Risk Register to systematically document and prioritise identified risks, based on their likelihood and potential impact on the business. CGA plays a key role in determining risk management programmes and processes, including assigning responsible individuals to oversee these programmes.

Risk Identified	Impact	Mitigating Controls
Regulatory Risk <i>Non-compliance with laws and regulations</i>	<ul style="list-style-type: none"> • Impact on operating licence • Fines & compounds • Health and safety risks • Loss of stakeholder trust • Reputational impact 	<p>Our EPMC and ERCMC oversee the assessment of compliance with environmental regulations and conduct routine internal audits. Likewise, our HSSE Department and OHS Committee oversee the assessment of compliance with occupational health and safety regulations. For further details on how we manage environmental risks, please refer to pg 65</p>
Operational Risk <i>Prolonged unplanned downtime of plant machineries and equipment</i>	<ul style="list-style-type: none"> • Plant downtime • Loss of revenue • Delayed work schedule • Waste backlog • Complaints from stakeholders • Non-compliance with local authority requirements • Reputational impact 	<p>Our steadfast commitment to a continuous improvement culture empowers us to enhance the operational integrity of our business and implement efficiency-driven initiatives. For further details on our continuous improvement culture, please refer to pg 26</p>
Health and Safety Risk <i>Accidents or injuries suffered by our employees</i>	<ul style="list-style-type: none"> • Loss of critical manpower • Fines & compounds • Reputational impact 	<p>Our HSSE Department, in conjunction with the OHS Committee, diligently oversees the health and safety of our employees and contractors. For further details on how we secure the safety of our employees and contractors, please refer to pg 72</p>

Risk Identified	Impact	Mitigating Controls
Environmental Risk <i>INC1 under capacity to meet the Clean Air Regulation 2014 requirements</i>	<ul style="list-style-type: none"> • Air pollution • Reputational impact • Complaints from stakeholders • Health and safety risks to employees • Non-compliance with local authority 	<p>Our ERCMC and EPMC work in tandem to rigorously ensure environmental compliance as an integral aspect of our Environmental Monitoring Programme. Examples of environmental monitoring and compliance include:</p> <ul style="list-style-type: none"> • Continuous Emissions Monitoring System (CEMS) installed at INC1 that complies with the Clean Air Regulations 2014. • Emissions from the SWtE process comply with Malaysia's Environmental Quality (Clean Air Regulations 2014). For further details on how we manage environmental compliance, please refer to pg 65
Cyber Security Risk <i>Including ransomware attacks, phishing and scams</i>	<ul style="list-style-type: none"> • Information security data loss • Cyber security attack/breaches • Insufficient infrastructure capacity • Loss of key MITS personnel • VPN connectivity failure 	<p>At Cenviro, we place utmost importance on upholding the highest levels of data privacy for customers, suppliers, partners, and employees. Governed by our stringent Personal Data Protection Policy, we adhere to high standards, legal requirements, and robust data protection measures.</p> <p>Cenviro is also unwavering in its commitment to data security and IT protection. Our Management of Information and Technology Services (MITS) team is proactively fortifying our defences against cyberattacks by implementing comprehensive measures to prevent breaches.</p> <p>For further details on how we manage cybersecurity and data privacy, please refer to pg 104</p>

Managing Climate Risk

In alignment with the TCFD, Cenviro remains committed to strengthening the disclosure of our climate-related efforts across our operations. By providing transparent insight into our climate-related performance, we provide the industry and stakeholders with valuable information to evaluate the effectiveness of our climate-related practices throughout our processes and policies.

In 2022, we organised our climate-related disclosure around four key thematic areas: Governance, Strategy, Risk Management, and Metrics and Targets.



Executive Summary		FY2022 Highlights
Governance <i>To see how we ensure robust Sustainability Governance, please refer to pg 97</i>	<p>Cenviro's Board of Directors assumes responsibility for overseeing all climate-related risks and opportunities within the company, while the Senior Management team makes crucial decisions regarding policies and resource allocation.</p> <p>At the operational level, the ERCMC diligently evaluates climate-related risks and impacts.</p>	<p>In 2022, the Sustainability Working Committee was established to oversee and implement our sustainability initiatives.</p>
Strategy <i>For more information on our 5-year GHG Reduction Roadmap, Please find it on pg 60</i>	<p>Introduced our 5-year GHG Reduction Roadmap, targeting a 5% reduction in GHG emissions intensity by 2025, using 2020 as the baseline year. Cenviro's strategy to reach these goals involves three bottom-up approaches, focusing on improving electricity efficiency and optimising transportation methods.</p>	<p>In addition to the bottom-up approaches, we expanded our initiatives to further reduce GHG emissions by incorporating green HR policies in 2022. These initiatives encompassed green recruitment and selection, green orientation, green performance management, and green compensation and reward management.</p>

	Executive Summary	FY2022 Highlights
Risk Management	<p>Cenviro's (CGA) department plays a vital role in identifying, assessing, and managing climate-related and other environmental risks through our (ERM) strategy.</p> <p>In 2020, CGA identified several risks, including hazardous emissions to the atmosphere, waste backlog, and occurrences of health, safety and environmental issues like fire and spillage.</p> <p>To mitigate these identified risks, we have implemented various internal controls. These measures encompass the establishment of the Environmental Aspect Impact, monthly EPMC, and annual ERCMC meetings. Additionally, we have incorporated CEMS, and EMP, an Air Pollution Control System (APCS), and regular fleet inspections and waste backlog monitoring.</p>	<p>We have incorporated the KASB Environmental Policy into our existing Quality, Health, Safety, Security, and Environmental (QHSSE) policy.</p> <p>We are also developing a Sustainability Framework to guide the implementation of climate change mitigation strategies.</p> <p>With guidance from our updated Risk Register in 2022, we are actively exploring ways to assess and measure our physical and transitional risks.</p>
Metrics and Targets	<p>We have made a transition from the Greenhouse Gas Protocol to the ISO 14064-1:2018 standards for quantifying our GHG emissions. Under the ISO 14064-1:2018 standards, GHG emissions are now identified into six categories (previously grouped as scope 1, 2 and 3).</p> <p>As part of this transition, we have set the year 2020 as our GHG emissions baseline year, which serves as a reference point to measure our progress in reducing GHG emissions intensity over time.</p>	<p>We achieved a 17.63% reduction in GHG emissions intensity in 2022.</p> <p>We will maintain close monitoring of the reduction figures to ensure they consistently surpass the 5% target.</p>

Ethical Business Conduct

GRI 2-23, 2-26

Business Ethics, Integrity & Compliance Highlights

Underpinned by a strong corporate governance framework, our senior management team meticulously oversees compliance with various requirements, including ethical behaviour, anti-bribery and corruption measures, and whistleblowing protocols.

Our Cenviro Code of Conduct serves as a guiding document, empowering all employees to maintain the utmost standards of professionalism and ethics in their business conduct. In 2022, we are guided by the following Code of Conducts and Policies:

Cenviro Code of Conduct

Encompassing policies and guidelines, this document outlines the expected standards and work ethics for all employees.

For more information, please refer to our: [Code of Conduct](#)



Anti-Bribery and Corruption Policy

Cenviro Group is committed to assisting the government and law enforcement agencies in combating bribery and corruption. Our stance is unequivocal - there is no place for any form of corrupt or bribery practices within Cenviro Group.

For more information, please refer to our [Website](#)



Cenviro Employee Handbook

The Code of Conduct serves as our compass for how we treat one another and conduct our business. Our reputation hinges on our daily actions and decisions. While not exhaustive, this Code offers guidance for handling diverse situations.

Cenviro Vendor Code of Conduct

Articulates the essential ethical/compliant behaviour standards expected from all vendor(s) when conducting business with or on behalf of Cenviro.

For more information, please refer to our [Website](#)



CSR, Donations and Sponsorships Policy

Cenviro strives to adopt high standards of ethical conduct and transparency in all their business dealings, and therefore this policy was developed to define the guiding principles, governance structure, strategy, and programs for the provision of CSR contributions, donations and sponsorships within Cenviro Group.

KASB Pricing Policy

This Pricing Policy has been established with the objective of effectively managing prices, a crucial factor in driving company profitability and achieving strategic goals.

Anti-Bribery & Corruption

GRI 2-24

Our Anti-Bribery & Corruption (ABC) Policy fully complies with the Malaysian Anti-Corruption Commission (MACC) Act 2009.

In 2021, we introduced the Organisational Anti-Corruption Plan (OACP), a pivotal step in our commitment to enhancing governance and integrity within Cenviro. As of 2022, we have successfully completed 53% of the 43 key initiatives outlined in this plan. These initiatives encompass a wide range of measures, such as reviewing the integrity of our procurement process, fostering dialogue with our vendors and suppliers, ensuring staff compliance on our gift policy, raising awareness through regular communications to our employees, and addressing gaps in our Conflict of Interest (Col) process. To further bolster our anti-corruption efforts, we also developed risk-based audit plans targeting corruption risk areas and governance issues related to accountability, responsibility, integrity, fairness and transparency. In 2022, we conducted an e-learning programme consisting of four modules covering corporate governance management, risk and compliance management, ethics, integrity, value management, anti-bribery management and whistleblower management. All staff are required to undergo training and pass the assessment. In addition, we conducted nine sessions of ABC-related training in 2022. It is worth noting that during this year, we reported zero corruption cases within Cenviro. Following this achievement, we implemented the Cenviro Vendor Code of Conduct to eliminate any further risks associated with such cases.

- Cenviro Anti-Bribery & Corruption Policy
- Cenviro Gifts & Hospitality Guidelines
- Cenviro Code of Conduct
- Cenviro Vendor Code of Conduct

Whistleblowing

GRI 2-16, GRI 2-25, GRI 2-26

At Cenviro, we are deeply committed to fostering a culture of integrity and transparency, which is why we established a robust Whistleblowing Policy. This policy serves as a confidential and secure mechanism, empowering employees and stakeholders associated with Cenviro to raise concerns about any suspected improper conduct within the organisation. This policy extends to all individuals, including employees, consultants, vendors, contractors, and anyone engaged in business relationships with us. This proactive policy provides a platform that encourages the open reporting of unethical, illegal, or improper behaviour without fear of reprisal. In upholding the principles of accountability and responsible business practices, our aim is to create a work environment built on trust and respect, for the benefit of all stakeholders.

At Cenviro, we approach all critical concerns about corporate wrongdoing with the utmost seriousness. Through our independent whistleblower channel, both employees and stakeholders have a confidential means to report such matters. Any significant issues are promptly escalated to members of the Board Audit and Risk Committee, who play a vital role in overseeing and addressing reported cases. Further escalation is made to Cenviro's Board of Directors when deemed necessary. In 2022, we addressed zero cases involving abuse of power and conflicts of interest.

Hotline:
1800-817-365

report@
cenvirowhistleblowing.com

https://
cenvirowhistleblowing.com

To ensure accessibility and anonymity, we offer multiple avenues for reporting corporate wrongdoing, including a dedicated hotline, a secure website and a confidential email address. The hotline is managed by an independent third-party company, guaranteeing impartiality and objectivity, and providing round-the-clock service.

Cybersecurity & Data Privacy

GRI 3-3, 418-1

At Cenviro, safeguarding the privacy and confidentiality of data belonging to our valued customers, suppliers, business partners, and employees is our top priority. We are guided by Cenviro's Personal Data Protection Policy, a blueprint that enshrines governing principles, ensuring we maintain the highest standards of data privacy. This policy not only ensures compliance with relevant legal and regulatory requirements but also lays the groundwork for robust data protection measures to safeguard sensitive information.

Data security and IT protection hold great significance within Cenviro, as evident in our strict adherence to the IT Security Policy version 1.2. This policy adopts a proactive stance, identifying potential risks and implementing comprehensive measures to safeguard against security breaches. Our commitment to data protection extends to our employees working remotely, where the MITS team provides invaluable support through VPN access, ensuring secure and seamless IT operations from any location.

This year, we reported one substantiated complaint involving breaches of data privacy and loss of customer data. Cenviro views this incident seriously and is taking steps to mitigate any future potential intrusion by migrating all affected systems to a Private Cloud environment.

- Cenviro IT Security Policy
- Cenviro Code of Conduct
- Cenviro Personal Data Protection Policy

Human and Labour Rights

GRI 2-30

At Cenviro, we maintain a strict policy of zero tolerance towards discrimination and human rights violations across our entire value chain. Our commitment extends to safeguarding labour rights throughout our supply chain, honouring our employees' right to collective bargaining, and protecting our customers' right to privacy. Our dedication to fostering a diverse and inclusive work environment is evident through our promotion of core values such as respect, trust, open communication, and embracing diverse perspectives. These values are deeply ingrained in our Cenviro Code of Conduct and as part of our best practices, we prioritise creating a work environment that is free from any form of harassment, bullying, intimidation, or abuse.

At Cenviro Group, we treat every employee, client and contractor with respect, strictly adhering to minimum wage regulations. In 2022, collective bargaining agreements covered 28% of Cenviro employees and 45% of EISB employees. In 2022, there were zero incidents of human rights violations.

Sustainable Supply Chain

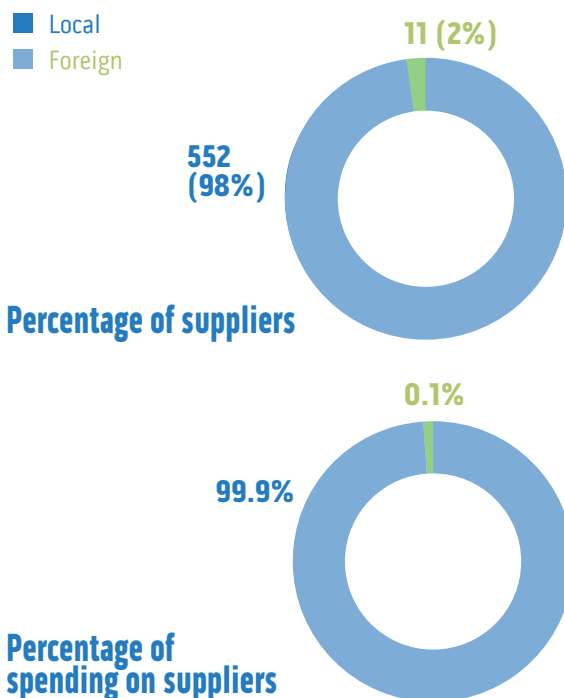
GRI 2-6, GRI 3-3, GRI 204-1

At Cenviro, we deeply understand the critical significance of sustainability in securing the long-term viability of our operations. As a critical part of our approach, we diligently evaluate the goods and services we procure, recognising the impact they can have on our sustainability efforts. Emphasising responsible sourcing and procurement practices, we strive to build a supply chain that not only reflects our values but also align seamlessly with our sustainability objectives. Through this commitment, we actively contribute to fostering an environmentally and socially responsible business ecosystem.

Procuring Sustainably

In our procurement and subcontracting endeavours, we acquire consumable materials, waste treatment equipment, and services related to equipment maintenance and construction. At Cenviro, ethical business conduct is paramount, and we achieve this by upholding our VCOC to the highest standards. Our commitment to responsible practices extends to our suppliers, with whom we engage in regular dialogues to ensure that their operations align with Cenviro's values and commitments. The VCOC covers a range of essential principles, including integrity, compliance, anti-corruption measures, transparency, disclosure of conflicts of interest, and confidentiality.

Supplier Breakdown in 2022



We meticulously screen all potential vendors before integrating them into our procurement system. This rigorous screening process adheres to our HSSE management standards, allowing us to identify and prevent any HSSE risks throughout our procurement activities.

Furthermore, Cenviro actively seeks to collaborate with ethical and responsible local suppliers, with a focus on making a positive impact on the communities where we operate. Our sourcing and procurement practices are designed to give back to these communities, fostering a mutually beneficial relationship.

Empowering Supplier Management Across Our Value Chain

In 2022, we conducted screening for a total of 114 suppliers, and successfully accepted 79 suppliers into our network. Cenviro remained dedicated to upholding the Vendor Rating system, along with the Supplier Screening and Registration Process, as part of our ongoing commitment to ensuring sustainable and responsible practices throughout our supply chain.



To ensure sustainability across our value chain, we have implemented an annual rating system to evaluate the performance of registered vendors. Under this system, underperforming vendors receive a vendor complaint form to address areas of concern. We believe in fostering continuous improvement, and vendors who fail to enhance their performance are not considered for new business opportunities.



**Number of
suppliers screened**

114



**Number of
suppliers accepted**

79

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Financial Performance

GRI 3-3, 201-1

Financial Performance (RM 000s)	2016	2017	2018	2019	2020	2021	2022
Revenue	189,560	176,581	253,057	219,856	253,498 ²	272,800	284,594
Earnings before interest, tax, depreciation and amortisation (EBITDA)	66,530	52,910	(1,482) ¹	65,511	73,782 ²	85,225	104,688
Profit Before Taxation	86,355	57,629	(3,544)	51,979	44,779	68,145	83,606
Net Profit Attributable to a Shareholder	75,096	46,183	(1,118)	37,046	34,827	57,268	62,783
Total Assets	535,489	643,090	648,733	689,937	657,299	703,649	748,566
Shareholder's Equity	450,410	496,262	467,651	483,653	472,745	504,153	477,321

Key Financial Ratios

Return on Equity	19.36%	9.75%	-0.68%	7.79%	7.37% ²	11.36%	13.15%
Debt/Equity Ratio	0.07	0.17	0.18	0.18	0.16 ²	0.11	0.25

Value Distributed to Stakeholders

Total value distributed (RM 000s)	157,135	130,775	76,976	141,018	139,700 ²	173,385	203,674
Providers of Capital <i>Finance costs and retained for future reinvestment and growth (depreciation, amortisation, retained profits and non-controlling interest)</i>	66.08%	56.51%	43.50%	57.18%	56.65% ²	60.62%	55.78%
Employees <i>Salaries and employee-related costs</i>	26.02%	34.62%	56.70%	32.14%	35.83% ²	33.08%	33.94%
Government <i>Taxation (including deferred tax)</i>	7.17%	8.76%	-0.34%	10.59%	7.12% ²	6.27%	10.22%
Communities and Others <i>Corporate donations and sponsorships</i>	0.73%	0.11%	0.14%	0.08%	0.40%	0.03%	0.05%

¹ Restatement due to recalculation² Restatement due to recalculation and alignment to Audited Financial Statement 2022

Operational Performance

Total Tonnes of Waste Treated

	2016	2017	2018	2019	2020	2021	2022
Incineration Plant <i>For incineration of harmful organic waste using thermal treatment</i>	40,962	31,872	25,293	26,675	18,272	22,818	29,072
Scheduled-Waste-to-Energy Plant <i>For generation of energy via the incineration of scheduled waste</i>	Not yet in operation	Not yet in operation	19,275	11,795	25,217	25,509	24,477
Physical and Chemical Treatment Plant <i>For treatment of all types of hazardous inorganic liquid waste</i>	2,605	4,884	8,794 ¹	3,481	2,809	4,672	4,707
Solidification Treatment Plant <i>For stabilisation and solidification of toxic components of hazardous wastes to prevent leaching once waste has been disposed of</i>	11,054	13,176	11,218	18,555	10,753	12,685	13,293
Clinical Waste Treatment Centre <i>For treatment of clinical waste using an eco-friendly incinerator and microwave technology</i>	7,708 ²	8,845 ³	8,921 ⁴	8,567	6,407	5,234	6,427
Recycling and Recovery Facilities⁵ <i>For recycling and recovery of valuable resources from scheduled waste</i>	7,968	9,970	9,954	8,167	11,110	8,182	7,990
Vertical Secured Landfill <i>For disposal of waste once it has been treated</i>							
Direct to landfill:	77,807 ⁶	91,598 ⁷	85,542 ⁸	85,191	111,972	102,422	124,576
Residuals from KAWMC:	44,080	44,934	34,718	41,376	26,290	30,450	28,199
Total Waste Diverted to Landfill:	121,887	136,532	120,260	126,567	138,262	132,872	152,775
Total Tonnes of Waste Treated <i>Includes waste sent to INC, SWtE, PCT, R&R, SOLI, CWTC & VSL Direct</i>	54,621	49,932	36,511	142,469	150,213	147,831	210,542

Notes:

1: Restatement due to recalculation of treatment tonnage for Physical and Chemical Treatment Plant in 2018

2 to 4: Restatement due to recalculation of treatment tonnage for Clinical Waste Treatment Centre from 2015-2018

5: Restatement of data from 2015-2019 due to recalculation of treatment tonnage and expansion of scope. Treatment tonnage now includes all waste recycled and recovered by Cenviro, including activities undertaken prior to the incorporation of Cenviro Recycling And Recovery Sdn. Bhd.

6 to 8: Restatement due to recalculation of waste directly disposed at Vertical Secured Landfill

Total Waste Treated in tonnes for 2016 - 2022

Resources generated by CRR (kg)	2018	2019	2020	2021	2022
Oil	2,832,000	2,024,000	1,649,516	3,171,105	4,629,280
Solvent	362,190	277,000	317,632	19,239	58,400
e-Waste	414,507	43,000	32,468	113,523	142,646
Scrap metal	1,525,732	3,670,000	9,129,215	2,377,609	952,895
Plastic	103,517	3,207,250	127,482	2,500,795	2,206,718
TOTAL resources generated by CRR	5,237,946	9,221,250	11,128,831	8,182,271	7,989,939

E-waste recovery and recycling by SPM	2019*	2020	2021	2022
Waste Processed (tonnes)	27,247	2,048	1,855	2,042
Waste Recycled (tonnes)	25,290	2,045	1,849	2,036
Recovery Efficiency	92.8%	99.8%	99.7%	99.7%

* 2019 data includes both scheduled and non-scheduled waste

Customer Satisfaction Scores

	2017	2018	2019	2020	2021	2022
KASB	85.4%	Clinical waste customers: 92.7% Scheduled waste customers: NA*	Clinical waste customers: 92.4% Scheduled waste customers: NA*	Clinical waste customers: 88.2% Scheduled waste customers: 79%	Clinical waste customers: 86.2% Scheduled waste customers: 80%	Clinical waste customers: 91.1% Scheduled waste customers: 72.9%
EISB	85.4%	94.3%	98.7%	99.2%	74.5%	84.7%

*Data unavailable due to customer survey system revamping exercises

EISB Performance	2019	2020	2021	2022
Kedah	520,098	473,404	504,312	497,078
Perlis	43,333	45,308	49,114	53,827
Total MSW collected (tonnes)	563,431	518,712	553,425	550,905
Used cooking oil collected (kg)	23,041	23,057	27,221	75,693
Fabric collected (kg)	13,484	14,686	51,693	14,095
Number of premises	370,655	377,915	395,443	403,462
Number of collection vehicles	392	387	393	393

Health & Safety Performance

GRI 3-3, 403-8, 403-9

	2019	2020	2021	2022
Total HSE cases recorded	36	45	37	39
Total recorded man hours	521,322	545,376	418,560	670,480
No. of LTI incidents (Employees)	6	1	1	4
No. of LTI incidents involving contractors	6	1	1	0
Consecutive days without LTI incident	73	226	400	390

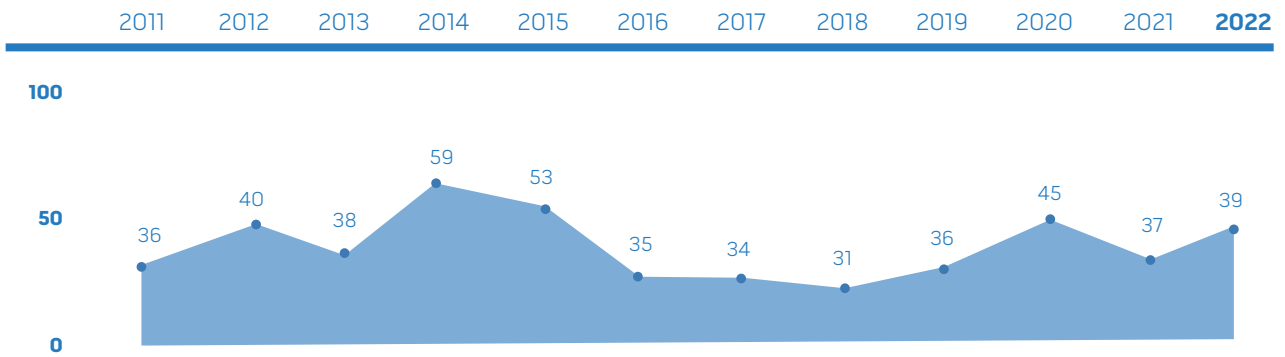
Occupational Health and Safety Performance Data*

GRI 403-8, 403-9

	EMPLOYEE				CONTRACTOR			
	2019	2020	2021	2022	2019	2020	2021	2022
Total Man hours	521,322	545,376	549,072	670,480	177,589	210,824	384,000	479,557
Number of work-related fatalities (death)	0	0	0	0	0	0	0	0
HSSE incidents with lost workdays	6	1	2	4	6	1	0	0
HSSE incidents without lost workdays	6	20	17	14	18	23	18	21
Total number of accidents	12	21	19	18	24	24	18	21
Total workdays lost	6	14	2	70	3	3	0	0
Fatality Rate	0	0	0	0	0	0	0	0
No. of fatalities X 200,000 / Total man-hours								
Lost Time Incident Rate	2.3	0.4	0.4	0.4	6.8	0.9	0.5	0
No. of LTI incidents X 200,000 / Total man-hours								
HSSE Incident Frequency Rate	4.6	7.7	6.9	5.4	27.0	22.8	9.4	8.8
No. of accidents X 200,000 / Total man-hours worked								
Lost Workday Rate	2.3	5.13	0.73	20.88	3.38	2.85	0	0

*HSSE indicators have been updated to be aligned to Bursa Malaysia Securities Berhad Main Market Listing Requirements

Total HSSE Incidents Recorded



Workplace Hazard Identification

GRI 3-3, 403-2

Work-related hazards that pose a risk of high consequence injury:	Gas Release, Explosion, Fire, Fall from Height, Hazardous Chemical
How these hazards have been identified:	<ol style="list-style-type: none"> 1. Hazard Identification, Risk Assessment and Risk Control (HIRARC) 2. Job Hazard Analysis 3. Hazard Identification Programme 4. Workplace Inspection 5. Intervention Policy
Which of these hazards have caused or contributed to high-consequence injury:	Object Falling from Height, Exposed to Hazardous Chemical
Actions taken to eliminate these hazards:	<ol style="list-style-type: none"> 1. Implement Control Measures from Risk Assessments 2. Regular Workplace Inspection 3. Equipment Upgrading and Maintenance as required 4. Health and Safety Training 5. Intervention

Workplace Data

GRI 2-7, 2-8

Employee Breakdown

GRI 405-1

CENVIRO

CRITERIA	2019		2020		2021		2022	
	VALUE	%	VALUE	%	VALUE	%	VALUE	%
Total Employees	448	100%	479	100%	482	100%	507	100%
Permanent Employees								
Male	318	71%	343	72%	347	72%	358	71%
Female	111	25%	118	25%	119	25%	126	25%
Temporary Employees								
Male	17	4%	15	3%	14	3%	16	3%
Female	2	0%	3	1%	2	0%	7	1%
Full-time Employees								
Male	335	75%	358	75%	361	75%	374	74%
Female	113	25%	121	25%	121	25%	133	26%
Part-Time Employees	0	0%	0	0%	0	0%	0	0.00%
By Ethnicity								
Malay	391	87.3%	417	87%	419	87%	430	85%
Chinese	16	3.6%	19	4%	20	4.1%	27	5%
Indian	30	6.7%	31	6.5%	30	6.2%	34	7%
Others	11	2.4%	12	2.5%	13	2.7%	16	3%
Top Management								
Male	3	100%	3	100%	2	100%	4	80%
Female	0	0%	0	0%	0	0%	1	20%
<30 yrs old	0	0%	0	0%	0	0%	0	0%
30-50 yrs old	1	33%	1	33%	1	50%	2	60%
>50 yrs old	2	67%	2	67%	1	50%	2	40%
Management								
Male	44	76%	47	75%	49	77%	47	71%
Female	14	24%	19	25%	15	23%	19	29%
<30 yrs old	0	0%	1	3%	2	3%	1	2%
30-50 yrs old	48	83%	48	73%	48	75%	48	73%
>50 yrs old	10	17%	17	24%	14	22%	17	26%
Executive								
Male	62	48%	66	49%	72	50%	81	50%
Female	67	52%	69	51%	73	50%	80	50%
<30 yrs old	39	30%	33	24%	38	26%	40	25%
30-50 yrs old	79	61%	92	68%	96	66%	109	68%
>50 yrs old	10	9%	10	7%	11	8%	12	7%
Non-Executive								
Male	226	88%	242	87%	238	88%	242	89%
Female	32	12%	36	13%	33	12%	30	11%
<30 yrs old	63	24%	67	24%	68	25%	54	20%
30-50 yrs old	172	67%	186	67%	172	63%	182	67%
>50 yrs old	23	9%	25	9%	31	11%	36	13%

Employee Breakdown

GRI 405-1

EISB

CRITERIA	2019		2020		2021		2022	
	VALUE	%	VALUE	%	VALUE	%	VALUE	%
Total Employees	1,546	100%	1,555	100%	1,661	100%	1,752	1100%
Permanent Employees								
Male	1,225	79%	1,244	80%	1,498	90%	1,583	91%
Female	130	8%	143	9%	163	10%	169	9%
Temporary Employees								
Male	158	10%	147	9%	0	0%	174	89%
Female	33	2%	21	1%	0	0%	22	11%
Full-time Employees								
Male	1,383	89.5%	1,387	89.2%	1,498	90.2%	1,583	90.4%
Female	163	10.5%	168	10.8%	163	9.8%	169	9.6%
Part-Time Employees	0	0%	0	0%	0	0%	0	0%
By Ethnicity								
Malay	1,476	95.5%	1,487	95.6%	1,596	96.1%	1,691	96.5%
Chinese	2	0.1%	2	0.1%	2	0.1%	2	0.1%
Indian	68	4.4%	66	4.3%	63	3.8%	59	3.4%
Others	0	0%	0	0%	0	0%	0	0%
Top Management								
Male	2	67%	2	67%	3	75%	3	100%
Female	1	33%	1	33%	1	25%	0	0%
<30 yrs old	0	0%	0	0%	0	0%	0	0%
30-50 yrs old	2	67%	2	67%	1	25%	1	33%
>50 yrs old	1	33%	1	33%	3	75%	2	67%
Management								
Male	15	83%	20	80%	18	72%	18	69%
Female	3	17%	5	20%	7	28%	7	31%
<30 yrs old	0	0%	0	0%	0	0%	0	0%
30-50 yrs old	9	50%	16	64%	18	72%	18	73%
>50 yrs old	9	50%	9	36%	7	28%	7	27%
Executive								
Male	49	60%	55	59%	53	57%	53	54%
Female	37	43%	38	41%	40	43%	46	46%
<30 yrs old	16	19%	21	23%	15	16%	14	14%
30-50 yrs old	64	74%	66	71%	73	78%	81	82%
>50 yrs old	6	7%	6	6%	5	5%	4	4%
Non-Executive								
Male	1,315	92%	1,314	92%	1,424	93%	1,509	93%
Female	118	8%	120	8%	115	7%	115	7%
<30 yrs old	243	17%	224	16%	292	19%	356	22%
30-50 yrs old	753	53%	783	55%	834	54%	872	54%
>50 yrs old	437	31%	427	30%	413	27%	396	24%

Employee Salary Breakdown

GRI 405-2

		CENVIRO				EISB			
Basic Salary Ratio		2019	2020	2021	2022	2019	2020	2021	2022
Top Management	Male to Female	1:0.98	1:0	1:0	1:0.57	1:1.2	1:0.98	1:0.64	1:0.00
Management	Male to Female	1:0.98	1:0.98	1:0.2	1:1.00	1:0.82	1:0.76	1:0.73	1:0.73
Executive	Male to Female	1:0.93	1:0.93	1:0.92	1:0.92	1:0.86	1:0.91	1:0.91	1:0.93
Non-Executive	Male to Female	1:0.95	1:0.94	1:0.94	1:0.94	1:0.98	1:1.00	1:1.05	1:1.08

New Employee Hires and Turnover

GRI 401-1

CENVIRO				
CRITERIA	2019 Number	2020 Number	2021 Number	2022 Number
New Employee Hires				
Total	40	56	27	65
Male	26	46	19	36
Female	14	10	8	29
<30 yrs old	1	34	14	36
30-50 yrs old	18	22	13	28
>50 yrs old	21	0	0	1
Employee Turnover				
Total	42	26	22	38
Male	25	23	13	24
Female	17	3	9	14
<30 yrs old	11	27	5	12
30-50 yrs old	21	49	9	21
>50 yrs old	10	68	8	5
EISB				
CRITERIA	2019 Number	2020 Number	2021 Number	2022 Number
New Employee Hires				
Total	92	93	270	235
Male	71	80	261	214
Female	21	13	9	20
<30 yrs old	70	65	162	138
30-50 yrs old	22	24	103	96
>50 yrs old	1	4	5	1
Employee Turnover				
Total	83	88	84	144
Male	72	77	73	129
Female	11	11	11	14
<30 yrs old	39	25	52	27
30-50 yrs old	38	31	29	49
>50 yrs old	6	32	3	68

Average Training Hours

GRI 404-1

	CENVIRO				EISB			
	2019	2020	2021	2022	2019	2020	2021	2022
Number of Employees	448	479	485	507	1,548	1,556	1,662	1,752
Training Cost (RM)	472,736	386,286	481,181	761,111	319,257	179,790	115,780	254,700
Average Training Cost per Employee (RM)	1,055	806	992	1,501	206	116	70	145
Training Hours	10,521	8,666	12,318	18,011	24,768	24,896	26,592	28,032
Average Training Hours per Employee	23	18	25.4	36	16	16	16	16

Employee Training by Employee Category and Gender

GRI 404-1

	CENVIRO				EISB			
	2019	2020	2021	2022	2019	2020	2021	2022
Training Hours by Category								
Manager	1,814	60	3,069	4,326	17	16	16	16
Executive	3,841	130	5,253	6,664	21	16	16	16
Non-Executive	4,766	219	3,996	7,021	10	8	8	8
Number of Employees by Gender								
Male	335	358	364	381	1,386	1,392	1,499	1,583
Female	113	121	121	134	162	164	163	169

Leadership Training

	CENVIRO				EISB			
	2019	2020	2021	2022	2019	2020	2021	2021
No. of leadership training sessions	12	17	7	7	6	6	6	6
No. of employees that attended training sessions	58	73	133	128	150	146	113	118

Competency Training for Cenviro's Employees

	2019	2020	2021	2022
Total Competency Areas	9	9	9	9
Target for Certified Competent Employees per Competency Area	14	14	21	19
EiMAS training figures				
Total training attendance	9*	2	0	19
No. of attendees that received one-year competency certificates	7	2	2	17
Other employees that secured a one-year competency certificates	7	2	2	17
No. of employees with full competency certificates	40	43	46	38

*Restatement of data due to recalculation of 2019 figures

Employee Performance Appraisals

GRI 404-3

	CENVIRO				EISB			
	2019	2020	2021	2022	2019	2020	2021	2022
Total Eligible Employees	446	467	439	472	1,370	1,346	1,476	1576
Senior Manager	-	-	-	10*	-	-	-	-
Manager	59	63	58	54	21	24	26	26
Executive	129	129	110	143	85	88	99	98
Non-executive	258	275	271	265	1,264	1,234	1,351	1,452
Male	332	351	338	354	1,220	1,188	1,320	1,416
Female	114	116	101	118	150	158	156	160

* New data point due to change in methodology

Employee Parental Leave Data

GRI 401-3

	CENVIRO			EISB		
	2020	2021	2022	2020	2021	2022
Total no. of employees entitled to parental leave						
Male	294	363	312	1,391	1,498	1,583
Female	84	121	93	164	163	169
Total no. of employees who took parental leave						
Male	31	29	33	55	68	60
Female	6	7	10	18	10	12
Total no. of employees who returned to work after parental leave						
Male	31	29	33	55	68	60
Female	6	7	10	18	10	12
Total employees that were still employed 12 months after returning						
Male	31	29	33%	50	65	59
Female	6	7	10%	16	9	11
Return to work rate (%)						
Male	100%	100%	100%	100%	96%	100%
Female	100%	100%	100%	100%	90%	100%
Retention rate (%)						
Male	100%	100%	100%	91%	100%	98%
Female	100%	100%	100%	81%	98%	92%

Community Performance

GRI 413-1

	2019	2020	2021	2022
Total spent on community programmes	>RM 73,000	RM 66,300*	RM 36,410	RM 105,110
Total donations to COVID-19 related relief efforts		RM 531,700	-	-

* FY2020 and first quarter of FY2021 included

Environmental Performance

GHG Emissions Data

GRI 305-1, 305-2, 305-3

GHG Protocol	ISO 14064-1 standard	2020	2021	2022
Scope 1 Direct GHG emission (tCO ₂ e)	Category 1	56,602	52,779	33,639
Scope 2 Indirect GHG emission (tCO ₂ e)	Category 2	7,889	9,154	8,389
Scope 3 Other indirect GHG emission (tCO ₂ e)	Category 3	24,733	21,346	35,176
	Category 4	6,371	7,526	10,871
	Category 5	330	0	1,426
	Total Scope 3	31,434	28,872	47,472
Total		95,925	90,805	89,501

• Note: Restatement of GHG emissions data from 2020 onwards is due to the change in standard from GHG Protocol to ISO 14064-1 standard
 •• Note: The data from 2022 was recalculated based on new parameters

Carbon Footprint

GRI 305-4

Type of Treatment (tonnes CO ₂ e/ tonnes waste)	2020	2021	2022
KAWMC	0.448	0.442	0.369

Energy

GRI 302-1

	2019	2020	2021	2022
Total fuel consumption from non-renewable sources* (GJ)	66,493	63,069.65	36,113.10	186,424**
Electricity Consumption (GJ)	52,392.07	49,740.95	53,669.05	60,163
Electricity Sold (GJ)	11,148.89	21,973.79	14,031.94	31,867
Total Energy Consumption (GJ)	130,038.96	90,836.81	75,750.21	214,720

* Includes fuel consumption from motor vehicle usage and diesel used for used for Cenviro operations. Fuel conversion metrics based on those provided by the U.S Energy Information Administration.

** Restatement of the calculations, aligned to the calculation methodology set forth by GRI Standards. Whereby Total energy consumption= Diesel consumption(SWtE incinerators) + Diesel (Scope 1 vehicle) + RO (Operations) + Electricity (purchased from national grid) + Electricity generated (solar for self-consumption - electricity sold (solar + SWtE)).

Fuel Consumption

GRI 302-1

	2015	2016	2017	2018	2019	2020	2021	2022
Reconstituted Oil (tonnes)	3,126	2,164	1,330	1,656	1,383	1,367	2,004	3547
Diesel (tonnes)	693	966	676	1,665	539	1,352	854	541

Purchased Electricity Consumption

GRI 302-1

	2015	2016	2017	2018	2019	2020	2021	2022
Purchased Electricity Consumption (kWh)	17,173,311	16,927,943	16,028,692	17,314,636	14,553,736	13,817,313	14,908,069	15,497,948

Solar Energy

GRI 302-1

	2019	2020	2021	2022
Solar energy generated (kWh)	157,495	1,537,509	1,510,561	1,334,570

Water Usage

GRI 303-5

	2015	2016	2017	2018	2019	2020	2021	2022
Water usage at KAWMC (m ³)*	212,695	213,200	260,599	254,368	216,533	203,426	194,442	168,329
Effluent generated (m ³)								
- ETP discharged		83,742	91,290	47,366	40,601	54,113	59,018	61,633
- LTP recycled		37,983	30,542	26,907	42,198	39,848	68,055	103,882

* KAWMC purchases fresh water from Syarikat Air Negeri Sembilan Sdn. Bhd. We do not withdraw water from any other source.

Internal Waste Management

GRI 306-2

	2016	2017	2018	2019	2020	2021	2022
Internal waste recycled (kg)	204.2	155	268	241	22	313	0*
Total internal scheduled waste treated internally and landfilled (kg)	337	446	558	582	505	479	468
Total internal general waste collected by appointed domestic contractors and sent to approved facilities (kg)	54,680	35,150	29,750	23,560	22,620	54,867	84,740

* Internal waste recycled data tracking is currently under revision

Materials Consumption

GRI 301-1

	2015	2016	2017	2018	2019	2020	2021	2022
Type of Material (tonnes)								
Hydrated Lime	1,290	1,548	1,628	1,239	1,118	779	796	829
Activated Carbon	8	10	7	12.7	10.6	6.5	2	6.5
Caustic Soda	50	115	181	1,108	653	1,072	1,268	1,262

Governance Data

Supplier Breakdown

GRI 204-1

	2016	2017	2018	2019	2020	2021	2022
Number of suppliers							
Local	419	411	442	776*	672	610	552
Foreign	12	8	6	17	18	13	11
Total	431	419	448	793	690	623	563
Percentage of suppliers by type							
Local (%)	97	98	99	98	97	98	98
Foreign (%)	3	2	1	2	3	2	2
Percentage of spending on suppliers by type							
Local (%)	99	95	97	98	98.7	99	99.9
Foreign (%)	1	5	3	2	1.3	1	0.1

*Increase in local suppliers due to revised procurement metrics.

Supplier Screening

	2019	2020	2021	2022
Number of potential suppliers screened	181	146	120	114
Number of potential suppliers accepted	111	73	85	79

Employees Covered by Collective Bargaining

GRI 2-30

	CENVIRO				EISB			
	2019	2020	2021	2022	2019	2020	2021	2022
No. of Employees	129	128	141	143	1,299	772	783	793
% of Employees	29%	26.7%	29%	28%	84%	49.6%	47%	45%

Diversity of Board Of Directors

	2019		2020		2021		2022	
		%		%		%		%
Board of Directors	6	100%	6	100%	6	100%	6	100%
Male	2	33%	2	33%	2	33%	5	83.3%
Female	4	67%	4	67%	4	67%	1	16.7%
<40 yrs old	0	0%	0	0%	0	0%	0	0%
40-55 yrs old	3	50%	3	50%	3	50%	4	67%
>55 years old	3	50%	3	50%	3	50%	2	33%

Assurance Statement

GRI 2-5



INDEPENDENT VERIFICATION STATEMENT

To: The Stakeholders of Cenviro Sdn Bhd
Kuala Lumpur, Malaysia

Introduction and Objectives of Work

Bureau Veritas (Bureau Veritas) has been engaged by Cenviro Sdn Bhd (Cenviro) to provide limited assurance over selected information reported in its Sustainability Report 2022 (Report). This Assurance Statement applies to the related information included within the scope of work described below.

Scope of Work

The scope of our work was limited to assurance over the following information included within the Report for the period 1 January 2022 to 31 December 2022 (Selected Information), based on Cenviro's material topics.

Material Topic	Indicators
Transition to circular economy	Materials recycled by CRR
	Resources generated by CRR by type
	Recyclable waste collected by RFL
	E-waste recycled by SPSB
	MSW collected by EISB
Renewable energy from waste	Waste incinerated by SWtE
	Energy generated by SWtE
Future-focused integrated solutions	In-flight projects: Objective, expected capacity & planned operation date
Engaging with industry and relevant authorities	R&D partnerships and collaborations (grant value)
Digital technologies and innovation	Digitalisation/Automation projects
Achieving customer satisfaction	Customer Satisfaction rate
Prioritising workplace health and safety	HSSE Performance (Targets and Achievements)
	HSSE Key Policies
	Hazard Identification Programme (Targets and Achievements)
	Contractor Dialogue
	Contractor Audit
	HSSE Engagements
Developing a next generation workforce	HSSE Awards
	HSSE Trainings
	Total Employees Trained

1



	Average Training Hours
	Competency Training
	Leadership Training
	Succession Planning
	HiPo Programme
Fostering an engaged workforce	Key Initiatives for Engagement
	Employee Performance Management (Appraisals)
Promoting diversity, inclusivity and equal opportunity	Percentage of Women in Senior Management & Management
Beyond compliance	Certifications and compliance
Managing emissions and addressing climate change	Absolute GHG Emissions
	Unitised GHG Emissions
Sustainable energy consumption	Solar Energy Generated (kWh)
Operational efficiency	Continuous Improvement Projects
Energy consumption	Total energy consumption (GJ)
	Materials consumption (tonnes)
	Fuel consumption (tonnes)
Water management	Water Usage (m ³)
	Effluent Generation (m ³)
Noise monitoring	Boundary Noise Quality
Biodiversity monitoring	Biodiversity
Health, safety and well-being of communities	EMP Outlook
Internal waste management	Total internal scheduled waste treated and landfilled (kg)
	Total internal general waste collected by appointed domestic contractors and sent to approved facilities (kg)
Ethical business	Good Business Conduct (Ethics & Integrity policies, Whistleblowing policy, Human Rights policy, Anti-Bribery and Corruption policy)
Good governance	Sustainability Governance
	Board of Directors Information
Sustainable procurement practices	Supplier screening results
	Supplier breakdown
Data security and privacy	Cybersecurity & Data Privacy policy
Community engagement and development	Community Investment amount (RM)
	Number of beneficiaries by RFL
Human & Labour Rights	Collective bargaining agreement



Our review also included an evaluation of alignment of the reported data and information included in the Report to the requirements of the Global Reporting Initiative (GRI) Standards and the corresponding GRI index. This is based on the current best practice in independent assurance.

Methodology

As part of its independent verification, Bureau Veritas undertook the following activities:

1. Conducted interviews with relevant personnel of Cenviro including the representative of its subsidiaries;
2. Reviewed the documented evidence produced by Cenviro and its subsidiaries;
3. Assessed the appropriateness and accuracy of the Selected Information; and
4. Agreed a selection of the Selected Information to the corresponding source documentation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are lesser in extent than for a reasonable assurance engagement.

Key Findings

Based on our methodology and the activities described above, our key findings are as follows:

- We are of the opinion that Cenviro has effectively implemented systems to collect, aggregate, and analyse both qualitative and quantitative data, including key performance data relevant to the Selected Information.
- Cenviro has welcomed Effzal Faiz Zulfikrily from Khazanah Nasional Berhad to its Board of Directors. Following SK Ecoplant's acquisition of a 30% stake in Cenviro in 2022, Cenviro has introduced two new Directors from SK Ecoplant to its Board: Park Deok Seop and Lee Dae Hyuck.
- In regards to financial performance, Cenviro achieved RM 284.6 million in revenue for FY2022. Its Sustainability-Linked Sukuk successfully raised RM 82.8 million, earmarked for funding recycling and recovery projects. Additionally, the implementation of 10 Continuous Improvement Projects (CIPs) across our operations and processes not only improved Cenviro's financial performance but also generated cost savings of RM 2.4 million.
- In 2022, Cenviro treated 210,542 tonnes of scheduled waste, of which 15.4% was diverted to our recycling and energy recovery facilities. Notably, SPSB responsibly recycled 2,036 tonnes of e-waste this year, representing approximately a 10% growth from 2021. Through its joint venture EISB, 550,905 tonnes of municipal solid waste were collected in 2022.
- In 2022, we have achieved a 17.63% reduction in GHG intensity emissions from our baseline year of 2020. The absolute emissions per metric ton of waste treated at KAWMC was recorded at 0.369 in 2022, which marks a reduction of 16.6% from 2021.
- This year, Cenviro consumed an amount of 168,329 m³ of water at KAWMC, which marks a reduction of 26,113 m³ (13.1%) compared to 2021.
- Cenviro has generated 1,334,570 kWh of solar energy in FY2022. Following that, Cenviro recorded a total energy consumption of 214,720 GJ. There was a restatement of calculation for total energy consumption, whereby the formula for this indicator is as follows:

Diesel consumption (SWtE+ Incinerators) + Diesel & Petrol (Scope 1 vehicle) + RO (operations) + Electricity (purchased from national grid) + Electricity generated (solar for self consumption) - electricity sold (solar + SWtE).

- In 2022, we achieved 390 cumulative days without Lost Time Incidents (LTI) and maintained a zero-fatality rate. 7,771 Hazard Identification Programme submissions were registered, exceeding our annual target of 5,000, thus underscoring our robust safety performance. Moreover, our Health and Safety Department was recognised as the Silver Winner for Fire Safety and Emergency Response Code at the FMM Negeri Sembilan S.H.E Excellence Awards.



- ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and ISO 45001:2018 were re-audited resulting in successful recertification in 2022.
- We have trained 507 Cenviro employees, averaging 36 hours per person, reflecting a 4.3% growth in training hours compared to the previous year.
- In 2022, our community investments more than doubled, surging to RM105,110—a remarkable 189% growth compared to the previous year. Additionally, our Recycle for Life (RFL) programme, which actively strives to enhance community-based recycling efforts to reshape perceptions about waste and reduce landfill waste, has gained momentum. During this period, Cenviro collected an impressive 142,197 kg of recyclable waste, a 104% increase from 2021, while EISB collected 610,619 kg of recyclable waste, which accounts for 2.7% reduction from 2021.
- In January 2022, we formally established our Sustainability Working Committee, with plans to institute a Board Sustainability Committee in the future.
- As for the Organisational Anti-Corruption Plan that was introduced the previous year, we have successfully completed 53% of the 43 key initiatives outlined in the plan.
- In 2022, the R&D collaboration programmes grant value amounted to a total of RM50,000.

Conclusion

On the basis of our methodology and the activities described above for the agreed scope of our verification, nothing has come to our attention to indicate that the reviewed statements are inaccurate, and the information included therein is not fairly stated in all material aspects.

Limitations and Exclusions

Any verification of the following information is excluded from our scope of work:

- Activities outside the defined verification period;
- Positional statements (expressions of opinion, belief, aim or future intention by Cenviro Sdn Bhd including E-Idaman Sdn Bhd) and statements of future commitment;
- Data identified by the client for non-inclusion, geographical operations/activities excluded, subsidiaries/Joint Ventures, etc.

The audit was conducted in a physical environment at Mercu UEM. Due to time restrictions, Bureau Veritas did not participate in any physical visits to Cenviro's Waste Management Centre in Seremban and E-Idaman Sdn Bhd in Alor Setar, or physical inspections of any of Cenviro's operating facilities.

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Responsibilities

The preparation and presentation of the Sustainability Report 2022 is the sole responsibility of the management of Cenviro.

Bureau Veritas was not involved in the drafting of the Report. Our responsibilities were to:

- Provide independent limited assurance about whether the Selected Information has been appropriately and accurately prepared;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our conclusions to the management of Cenviro Sdn. Bhd. .

We have verified the Cenviro Sdn Bhd Sustainability Report, which includes E-Idaman Sdn Bhd.

**Statement of independence, impartiality, and competence**

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with over 180 years history in providing independent assurance services.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with Cenviro Sdn. Bhd., its directors or managers beyond that required of this assignment. We have conducted this verification independently and there has been no conflict of interest.

The assurance team has extensive experience in conducting verification and assurance of environmental, social, ethical and health and safety information, systems and processes. The team has over 15 years combined experience in this field and an excellent understanding of the Bureau Veritas standard methodology for the assurance of sustainability reports.

Bureau Veritas Certification (M) Sdn Bhd
Kuala Lumpur, MALAYSIA
09 October 2023

A handwritten signature in black ink, appearing to read 'Toh Ket Tiong'.

Toh Ket Tiong
LEAD VERIFIER

GRI Content Index



CONTENT INDEX ESSENTIALS SERVICE

2023

GRI Services Statement

For the Content Index - Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for disclosures 2-1 to 2-5, 3-1 and 3-2 are aligned with the appropriate sections in the body of the report.

Statement of use	Cenviro Sdn. Bhd. has reported in accordance with the GRI Standards for the period 1 January 2022 to 31 December 2022
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not applicable

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
General Disclosures			
GRI 2: General Disclosures 2021	2-1 Organisational details	2; 9-10	
	2-2 Entities included in the organization's sustainability reporting	2; 9-10	
	2-3 Reporting period, frequency and contact point	2	
	2-4 Restatements of information	Significant restatements of data compared to prior years are noted in the section(s) where they appear	
	2-5 External assurance	2; 122-126	
	2-6 Activities, value chain and other business relationships	5-10; 30-33; 41-43; 105-106	
	2-7 Employees	114-118	
	2-8 Workers who are not employees	114-115	
	2-9 Governance structure and composition	92-95; Cenviro website (https://www.cenviro.com/our-leadership/)	
	2-10 Nomination and selection of the highest governance body	94-95	
	2-11 Chair of the highest governance body	94-95	
	2-12 Role of the highest governance body in overseeing the management of impacts	97	
	2-13 Delegation of responsibility for managing impacts	97	
	2-14 Role of the highest governance body in sustainability reporting	97	
	2-15 Conflicts of interest		
	2-16 Communication of critical concerns	103	

Confidentiality constraints: As a private company, the details about Cenviro Board of Members are considered proprietary and not disclosed publicly.

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
	2-17 Collective knowledge of the highest governance body		Confidentiality constraints: As a private company, the details about Cenviro Board of Members are considered proprietary and not disclosed publicly.
	2-18 Evaluation of the performance of the highest governance body		Confidentiality constraints: As a private company, the details about Cenviro Board of Members are considered proprietary and not disclosed publicly.
	2-19 Remuneration policies		Confidentiality constraints: As a private company, the details about Cenviro Board of Members are considered proprietary and not disclosed publicly.
	2-20 Process to determine remuneration	94	
	2-21 Annual total compensation ratio		Confidentiality constraints: As a private company, the details about Cenviro Board of Members are considered proprietary and not disclosed publicly.
	2-22 Statement on sustainable development strategy	11-16	
	2-23 Policy commitments	102-104	
	2-24 Embedding policy commitments	103	
	2-25 Processes to remediate negative impacts	103	
	2-26 Mechanisms for seeking advice and raising concerns	103; Cenviro website (https://www.cenviro.com/governance-assurance/)	
	2-27 Compliance with laws and regulations	79	
	2-28 Membership associations	90	
	2-29 Approach to stakeholder engagement	35-37	
	2-30 Collective bargaining agreements	104; 121	

Material Topics

GRI 3: Material Topics 2021	3-1 Process to determine material topics	35-38
	3-2 List of material topics	Refer to pg 39 on the mapping of Cenviro's material topics to GRI Topic Standards. There has been no significant changes to applicable operational boundaries, scope or measurement methodology.

Good Governance

GRI 3: Material Topics 2021	3-3 Management of material topics	92-97
GRI 2: General Disclosures 2021	2-9 to 2-21	See index entries above

Beyond Compliance

GRI 3: Material Topics 2021	3-3 Management of material topics	76; 79; 104; 121
GRI 2: General Disclosures 2021	2-27, 2-30	See index entries above

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
Ethical Business			
GRI 3: Material Topics 2021	3-3 Management of material topics	102-104	
GRI 2: General Disclosures 2021	2-23, 2-24, 2-25, 2-26	See index entries above	
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	103	
Transition to Circular Economy			
GRI 3: Material Topics 2021	3-3 Management of material topics	7-10; 19; 21-29; 30-33; 46-53; 54-57	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	17; 109	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	46-53; 54-57; 110 -111	
	203-2 Significant indirect economic impacts	46-53; 54-57; 110-111	
Renewable Energy from Waste			
GRI 3: Material Topics 2021	3-3 Management of material topics	46-53	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	47; 50	
	203-2 Significant indirect economic impacts	43-44; 50	
Future-Focused Integrated Solutions			
GRI 3: Material Topics 2021	3-3 Management of material topics	21-29; 30-33; 41; 46-53	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	21-29; 30-33; 41; 46-47; 50	
	203-2 Significant indirect economic impacts	21-29; 30-33; 41; 46-47; 50	
Engaging with Industry and Relevant Authorities			
GRI 3: Material Topics 2021	3-3 Management of material topics	21-29; 80; 90	
GRI 203: Indirect Economic Impacts 2016	203-2 Significant indirect economic impacts	21-29; 80; 90	
Digital Technologies and Innovation			
GRI 3: Material Topics 2021	3-3 Management of material topics	23-27	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	23-27	
	203-2 Significant indirect economic impacts	23-27	

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
Achieving Customer Satisfaction			
GRI 3: Material Topics 2021	3-3 Management of material topics	46-53; 54-56	
GRI 203: Indirect Economic Impacts 2016	203-2 Significant indirect economic impacts	52; 56	
Operational Efficiency			
GRI 3: Material Topics 2021	3-3 Management of material topics	26-28	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	26-28	
	203-2 Significant indirect economic impacts	26-28	
Sustainable Procurement Practices			
GRI 3: Material Topics 2021	3-3 Management of material topics	105-106	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	105-106; 121	
Sustainable Energy Consumption			
GRI 3: Material Topics 2021	3-3 Management of material topics	65-66; 67	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	67; 120	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	65-66; 119-120	
Water Management			
GRI 3: Material Topics 2021	3-3 Management of material topics	67	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	67; 120	
	303-2 Management of water discharge-related impacts	67; 120	
	303-5 Water consumption	67; 120	
Biodiversity Monitoring			
GRI 3: Material Topics 2021	3-3 Management of material topics	68-70	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	68-70	
	304-3 Habitats protected or restored	68	
Noise Monitoring			
GRI 3: Material Topics 2021	3-3 Management of material topics	68-70	

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
Health, Safety and Wellbeing of Communities			
GRI 3: Material Topics 2021	3-3 Management of material topics	68-70	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	68-70	
	304-3 Habitats protected or restored	68	
Managing Emissions and Addressing Climate Change			
GRI 3: Material Topics 2021	3-3 Management of material topics	59-63	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	62; 119	
	305-2 Energy indirect (Scope 2) GHG emissions	62; 119	
	305-3 Other indirect (Scope 3) GHG emissions	62; 119	
	305-4 GHG emissions intensity	62; 119	
Domestic Waste Management			
GRI 3: Material Topics 2021	3-3 Management of material topics	68	
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	68; 120	
	306-3 Waste generated	68; 120	
	306-5 Waste directed to disposal	68; 120	
Fostering an Engaged Workforce			
GRI 3: Material Topics 2021	3-3 Management of material topics	81-87	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	116	
	401-3 Parental leave	118	
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	86; 118	
Prioritising Workplace Health and Safety			
GRI 3: Material Topics 2021	3-3 Management of material topics	72; 78	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	74-75	
	403-2 Hazard identification, risk assessment, and incident investigation	72; 76-77; 113	

GRI Standard	Disclosure	Page Number (s) or URL/Direct Answer	Omission
Prioritising Workplace Health and Safety			
GRI 403: Occupational Health and Safety 2018	403-3 Occupational health services	74	
	403-4 Worker participation, consultation, and communication on occupational health and safety	76-77	
	403-5 Worker training on occupational health and safety	78-80	
	403-6 Promotion of worker health	80	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	74; 76; 79-80	
	403-8 Workers covered by an occupational health and safety management system	112-113	
	403-9 Work-related injuries	72-73; 112-113	
Developing a Next Generation Workforce			
GRI 3: Material Topics 2021	3-3 Management of material topics	81	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	81-82; 117	
	404-2 Programs for upgrading employee skills and transition assistance programs/restored	82-84	
	404-3 Percentage of employees receiving regular performance and career development reviews/topics	86; 118	
Promoting Diversity and Equal Opportunity			
GRI 3: Material Topics 2021	3-3 Management of material topics	87	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	87; 114-115	
	405-2 Ratio of basic salary and remuneration of women to men	116	
Community Engagement and Development			
GRI 3: Material Topics 2021	3-3 Management of material topics	35-37; 89	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	89; 90	
	203-2 Significant indirect economic impacts	89; 90	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	88-90	
Data Security and Privacy			
GRI 3: Material Topics 2021	3-3 Management of material topics	99; 104	
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	104	

Cenviro Marketing Network



Convenient Services Nationwide

You can leverage our comprehensive marketing network for easy access and efficient services. We will be happy to provide you with more information about our capabilities and services for each of your business needs.

- | | | | |
|---|---|---|---|
| <p>1 CORPORATE OFFICE
Cenviro Sdn. Bhd.
13-1, Mercu UEM
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Jalan Tun Ismail
25000 Kuantan, Pahang
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(Scheduled Waste)
No 18, Jalan Suria 19, Taman
Putra
81100, Johor Bahru, Johor
Tel: +607 332 7099/2742
Fax: +607 334 9693
Email: johor@kualitiam.com</p> | <p>7 WISMA IDAMAN
(Municipal Solid Waste)
No. 163 & 164,
Jalan BSG 4 Bandar Stargate
Lebuhraya Sultanah Bahiyah
05400 Alor Setar, Kedah
Tel: +604 771 1320
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| <p>2 SELANGOR, KUALA LUMPUR,
NEGERI SEMBILAN & MELAKA
(Scheduled Waste)
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Waste Management Centre
Ladang Tanah Merah A3 Division
71960 Bukit Pelandok
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Tel: +606 666 2000
Fax: +606 666 2130
Email: central@kualitiam.com
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melaka@kualitiam.com</p> | <p>4 PERLIS, KEDAH, PENANG & PERAK
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Definitions

Circular Economy¹

A circular economy is a closed loop economic system that is restorative or regenerative by intention and design. The concept aims to replace the traditional end-of-life, linear concept by closing the loop in which raw materials consumed, components and products lose their value as little as possible. This involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. The objective is to eliminate waste through the superior design of materials, products, systems, and business models.

Clinical Waste

The Ministry of Health Malaysia defines clinical waste as:

- Any waste which consists wholly or partly of human or animal tissue, blood or other bodily fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, syringes, needles or other sharp instruments, being waste which unless rendered safe may prove hazardous to any person coming into contact with it.
- Any other waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, investigation, treatment, care, teaching or research, or the collection of blood for transfusion, being waste, which may cause infection to any person coming into contact with it.
- Also, a type of scheduled waste listed in the First Schedule of Environmental Quality (Scheduled Wastes Regulations 2005 (e.g. code: SW404 – Pathogenic wastes, clinical wastes or quarantined materials).

Effluents

Liquid waste discharged into a natural body of water. Liquid factory waste and raw sewage can also be called effluents.

E-Waste

A type of scheduled waste listed in the First Schedule of Environmental Quality (Scheduled Wastes) Regulations 2005. (e.g. code: SW102 – Waste of lead-acid batteries in whole or crushed form and SW103 – Waste of batteries containing cadmium and nickel or mercury or lithium).

High Density Polyethylene²

HDPE is a thermoplastic polymer made from petroleum. As one of the most versatile plastic materials around, HDPE plastic is used in a wide variety of applications, including plastic bottles, milk jugs, shampoo bottles, bleach bottles, cutting boards, and piping.

Inert Waste

Waste that is neither chemically nor biologically reactive and will not decompose, such as sand and concrete.

Leachate

Water that has passed through waste and contains dissolved and suspended material is termed leachate. It may contaminate other sources.

Municipal Solid Waste

More commonly known as trash or garbage – consists of everyday items we use and throw away, such as product packaging, furniture, clothing, bottles, food scraps and newspapers.

Polyethylene Terephthalate (PET)³

Sometimes written as Poly(Ethylene Terephthalate), commonly abbreviated as PET, PETE, or the obsolete PETP or PET-P, it is the most common thermoplastic polymer resin of the polyester family and is used in fibres for clothing, containers for liquids and foods, and thermoforming for manufacturing, and in combination with glass fibre for engineering resins.

Recycled polyethylene Terephthalate (RPET)⁴

Recycled polyethylene terephthalate, commonly abbreviated as RPET, is plastic that is made from used PET. After the original PET containers are used by consumers, they are processed at a facility that sorts, cleans and transforms the plastic into rPET flakes or pellets. The rPET flakes or pellets can then be reused to make new products, such as fibre for clothing and carpets, or plastic for food and beverage containers.

Scheduled Waste

Scheduled waste is any waste falling within the categories of waste listed in the First Schedule of Environmental Quality (Scheduled Wastes) Regulations 2005. Scheduled waste is by nature very toxic and dangerous. Improper management of such waste will lead to serious pollution of the environment and the ecosystem as well as immediate long-term impact on human health.

Task Force on Climate-Related Financial Disclosure (TCFD)

Recommendations in the form of a framework for companies to develop more effective climate-related financial disclosures through their existing reporting processes.

¹ <https://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/from-linear-to-circular-accelerating-a-proven-concept/>

² [https://www.acmeplastics.com/what-is-hdpe#:~:text=High%20Density%20Poly%20Ethylene%20\(HDPE,%2C%20cutting%20boards%2C%20and%20piping](https://www.acmeplastics.com/what-is-hdpe#:~:text=High%20Density%20Poly%20Ethylene%20(HDPE,%2C%20cutting%20boards%2C%20and%20piping)

³ <https://omnexus.specialchem.com/selection-guide/polyethylene-terephthalate-pet-plastic>

⁴ <https://bottledwater.org/rpet-facts/>

Glossary

ABC	Anti-Bribery and Corruption	INCR	Internal Non-Conformity Report
CEMS	Continuous Emissions Monitoring System	INCI	Incineration Plant
CENURA	Cenviro Aura Technologies Sdn. Bhd.	KASB	Kualiti Alam Sdn. Bhd.
CFP	Carbon Footprint Assessment	KAWMC	Kualiti Alam Waste Management Centre
CFC	Chlorofluorocarbon recovery	LTI	Lost Time Injury
CGA	Corporate Governance & Assurance	LTIR	Lost Time Incident Rate
CI	Continuous Improvement	LTP	Leachate Treatment Plant
CIPs	Continuous Improvement Projects	MACC	Malaysian Anti-Corruption Commission
CJSB	Cenviro (Johor) Sdn. Bhd.	MAVROS	Waste Oil Sludge Recycling Plant
CRR	Cenviro Recycling and Recovery Sdn. Bhd.	MITIS	Management of Information and Technology Services
CWTC	Clinical Waste Treatment Centre	MRF	EISB's Material Recovery Facility
CW	Clinical Waste	MSW	Municipal Solid Waste
DCTI	Digital Collection and Transportation Instruction	NITRO	Rubber Sludge Recycling Plant
DTRC	Drive Thru Recycle Centre	OACP	Organisational Anti-Bribery and Corruption Plan
DOE	Department of Environment	OPAL	Refined Base Oil Recovery Plant
DOENS	Negeri Sembilan Department of Environment	OSH	Occupational Safety and Health
EiMAS	Environmental Institute of Malaysia	PET	Polyethylene Terephthalate
EISB	E-Idaman Sdn. Bhd.	PCT	Physical and Chemical Treatment Plant
EMP	Environmental Monitoring Programme	PP	Polypropylene
EMR	Environmental Monitoring Report	PPE	Personal Protective Equipment
EMS	Environmental Monitoring System	QHSSE	Quality, Health, Safety, Security and Environment
EPIC	Environmental Preservation and Innovation Centre Sdn. Bhd.	RAMUNIA	Scheduled Waste To Energy plant
EPMC	Environmental Performance Monitoring Committee	R&D	Research and Development
ERCMC	Environmental Regulatory Compliance Monitoring Committee	RO	Reconstituted Oil
ERM	Enterprise Risk Management	RPET	Recycled Polyethylene Terephthalate Plant
ERT	Emergency Response Team	SLS	Sustainability-Linked Sukuk
ETP	Effluent Treatment Plant	SOLI	Solidification Plant
GHG	Greenhouse Gas	SPSB	Shan Poornam Sdn. Bhd.
GJ	Gigajoule	SPT	Sustainability Performance Target
HDPE	High-density polyethylene	TCFD	Task Force on Climate-Related Financial Disclosures
HIP	Hazard Identification Programme	tCO₂e	tonnes of Carbon Dioxide emissions
HiPo	High Potential Programme	UN SDGs	United Nations Sustainable Development Goals
HR	Human Resource	VCOC	Vendor Code of Conduct
HSSE	Health, Safety, Security and Environment	VSL	Vertical Secured Landfill
ILAC	International Laboratory Accreditation Cooperation		
IMS	Integrated Management System		

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