



Sustaining Smart Cities for Tomorrow

Sustainability Report 2022



Contents

About This Report	1	Stakeholder Engagement	10
About Us	2	Materiality	11
Chairman's Statement	3	Sustainable Development Goals at Pan-United	12
Board Statement	4	Environmental	14
		Sustainable Materials	16
		Water Management	18
		Waste Management	19
Performance Highlights	5	Social	20
		Diversity and Inclusion	21
		Occupational Health and Safety	26
Our Sustainability Approach	6	Governance	28
		Regulatory and Legal Compliance	28
Sustainability Governance	7	External Initiatives and Memberships of Associations	29
Strategy	8	Appendix	
		Key Environmental and Social Performance Indicators	30
		GRI Content Index	32
Risk Management	9		

About This Report

This is the sixth annual Sustainability Report by Pan-United Corporation Ltd for the financial year 1 January 2022 to 31 December 2022, and published on 5 April 2023.

It covers the environmental, social and governance (ESG) strategies, policies, initiatives, performance and targets for all our subsidiaries and operations in Singapore. This report does not include information on our subsidiaries and operations in Malaysia, Indonesia and Vietnam, as at this point in time, these operations are not material on an aggregate basis to the Group. Coverage on these geographies may be considered in future reports as we progress on our reporting journey. Please refer to the Annual Report, pages 81 and 82 for a list of the entities and their country of incorporation.

The report has been approved by the Board and is prepared with reference to the Global Reporting Initiatives (GRI) Universal Standards 2021 and in compliance with SGX Listing Rule 711 (A) and (B).

We have relied on internal verification processes to ensure the accuracy and reliability of the ESG data contained in this report and have not sought any external assurance for this reporting period. We will consider obtaining external independent assurance for future reports.

There are no restatements of information of previous reporting periods.

This report is to be read in conjunction with our Annual Report 2022 and other sustainability-related disclosures on our website.

A soft copy of this report can be found on our website: www.panunited.com.sg. Should you have any questions or feedback regarding this Sustainability Report, please do not hesitate to reach us at info@panunited.com.sg.



About Us

Pan-United Corporation Ltd (Pan-United or the Group) is a global leader in low-carbon concrete technologies catalysing change in the concrete space. Focused on concrete innovation and sustainability, we are one of Asia's largest producers of low-carbon concrete, backed by world-class inhouse R&D capabilities and advanced digital technologies.

We believe in concrete as an engineered product that can play a significant role in decarbonising the environment, so as to ensure a safer world for future generations. We are constantly developing high-performance solutions and adopting new technologies to stay ahead of the sustainability curve.

Pan-United was listed on the Mainboard of the Singapore Exchange on 22 December 1993. Headquartered in Singapore, we have operations across four countries – Singapore, Malaysia, Vietnam and Indonesia, with a total workforce of over 1,000 employees.

Our primary activities include:

- Manufacture and supply of ready-mix concrete, ground granulated blast furnace slag and granite aggregates,
- Cement silo operations, cement trading and distribution,
- Quarry operations,
- Trading and supply of refined petroleum products,
- Technology and digital-based services, and
- Investment holding and general trading.

Pan-United is Singapore's largest provider of ready-mix concrete and cement, with a growing footprint in Vietnam and Malaysia. We serve both the public and private sectors in a diverse array of projects encompassing infrastructural, institutional, commercial, residential, educational and industrial developments.

Vertical integration and circular economy

Our concrete and cement businesses are vertically integrated across the value chain, including aggregate quarrying and logistics services. Our supply chain consists of material suppliers, contractors, customers and delivery truck suppliers.

Pan-United's circular economy model of product and process innovation, combined with waste reduction, provides a comprehensive approach to long-term sustainability of the ready-mix concrete industry. Our circular model is underlined by extensive digitalisation towards industry transformation.

Chairman's Statement

Dear Shareholder,

Thank you for taking the time to learn about Pan-United's commitment to sustainability. This is our sixth sustainability report. It details the ESG principles important to us, in addition to various initiatives we have implemented to drive green changes across our operations throughout FY2022. Our materiality assessment also maps out the material risks we face, giving insight to how we have calibrated our strategy to manage such risks, accelerate our creation of low-carbon concrete solutions, and build climate resilience.

Our approach is grounded in a responsibility to catalyse positive and sustainable change for cities and communities. We take our societal role very seriously, working diligently to push the frontiers of decarbonising the built environment and transforming the industry through means including digitalisation.

Investing in concrete innovation and technology

In line with our circularity approach, we have continued to invest in concrete innovations that reduce embodied carbon emissions, as well as in technology-enabled processes to optimise productivity. Our use of recycled and reused materials, as well as carbon capture and utilisation (CCU) technologies, helps to reduce the proportion of cement required in each cubic metre of concrete we produce – in turn reducing the levels of embodied carbon in the concrete that we produce.

Notably, our CO₂ mineralised concrete has been gaining wider acceptance. We supplied this CCU-processed concrete to major projects such as CapitaLand's 15-storey building at 3 Science Park Drive, the berths and stacking yards at Tuas Port Phase One project, and a 34-storey commercial building in the Labrador area, among others.

During the year, we became the first concrete company in Asia to provide on-demand Environmental Product Declaration certificates (EPDs) to our customers. These EPDs are independently audited disclosures of the cradle-to-grave environmental impact of our concrete products used in a development project. We hope that by making credible and accurate quantitative data accessible through these EPDs, customers can make informed decisions at the planning stage on their choices of lower-carbon concrete building materials.

Within our operations, we are exploring the feasibility of using renewable energy sources such as solar panels and electric gensets to power our facilities in Singapore.

Our role as a global leader in concrete technologies

Leveraging our scale and influence as a global leader in concrete technologies, we continued to advocate and champion the adoption of sustainable concrete innovations. In FY2022, Pan-United participated in industry speaking events and exhibitions like the Land Transport Industry Day, Temasek Tripartite Conversations and Singapore's inaugural pavilion at the 2022 United Nations Climate Change Conference (COP27) in Egypt, as well as technical seminars hosted by the World Green Building Council (WGBC).

Outside the industry, Pan-United has reimagined and repurposed our concrete to contribute to meaningful community initiatives. Our concrete engineers customised a seven-metre long 3D-printed installation for the National Heritage Board's Singapore Night Festival. We also sponsored

PanU Illuma concrete trophies for the WGBC Asia-Pacific Leadership in Green Building Awards 2022. We designed and sponsored NEWSand trophies for the CapitaLand X Sustainability Challenge 2022 for the second consecutive year.

Pan-United views low-carbon concrete as the way to the future. We believe investments for ESG in our businesses are essential in creating long-term value for our shareholders, customers and the wider community. Since embarking on our sustainability journey over two decades ago, we have been constantly exploring ways and means to save or recycle resources, in addition to reducing the impact of our operations on the environment. We will continue to work towards lowering our carbon footprint and ensure a safer world for future generations.

We would like to thank our customers, partners and shareholders for their constant support and collaboration in weaving ESG into our business. On behalf of the Board and Management, we would also like to extend our gratitude to everyone in the Pan-United team for their commitment to building and securing a sustainable future.

Tay Siew Choon
Chairman

Board Statement

The Board oversees the management of material Environmental, Social and Governance (ESG) factors for Pan-United and takes them into consideration in setting the Group's strategic direction.

We believe in making a positive impact on the environment through continuous innovation of our concrete solutions and technology offerings. As a building materials provider, we have an upstream role to play in reducing embodied carbon emissions in the built environment, besides minimising energy use and waste.

We have structured our sustainability efforts within a circular economy model that serves as our guide to constructively upcycle waste, and become regenerative within the system.

Performance Highlights



We are the first concrete company in Asia to **provide on-demand Environmental Product Declaration certificates (EPDs)** that quantify the environmental impact of over 300 specialised concrete solutions in our portfolio.



We are the first concrete company to attain the Singapore Green Building Council's **highest "Leader" certification for our carbon dioxide (CO₂) mineralised concrete products.**



For every cubic metre of low-carbon concrete that we produce, **up to 270kg of CO₂ emissions are saved** from being released into the atmosphere.

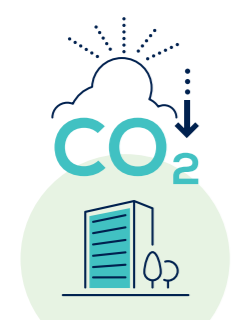


We embarked on our first in-house **Sustainability Workshop to create awareness** amongst our employees.

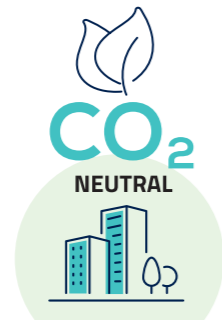
Our Sustainability Approach

Pan-United believes that creating sustainable value for our stakeholders is essential to the Group's success. We strive to offer products and solutions that can give peace of mind to our customers on their sustainability journeys across various sectors such as aviation, healthcare, transport, marine and ports, residential and commercial.

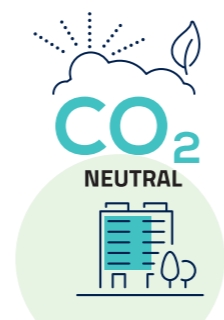
We understand our higher responsibility in building up foundations to a greater national and global impact. Thus we have set three green and low-carbon goals.



To offer only low-carbon concrete*
by 2030



To offer carbon-neutral concrete products
by 2040



To become a carbon-neutral concrete company
by 2050

We want to attract, develop and retain good people in order to build a bright future for all. We act responsibly in the way that we procure, consume and produce our concrete. We comply with all applicable laws and regulations in the jurisdictions where we operate in. We take safety seriously and place it above profits. We also do our part for the environment by recycling water and waste, among others.

* More than 50% reduction in embodied carbon compared to 2005 levels.

Sustainability Governance

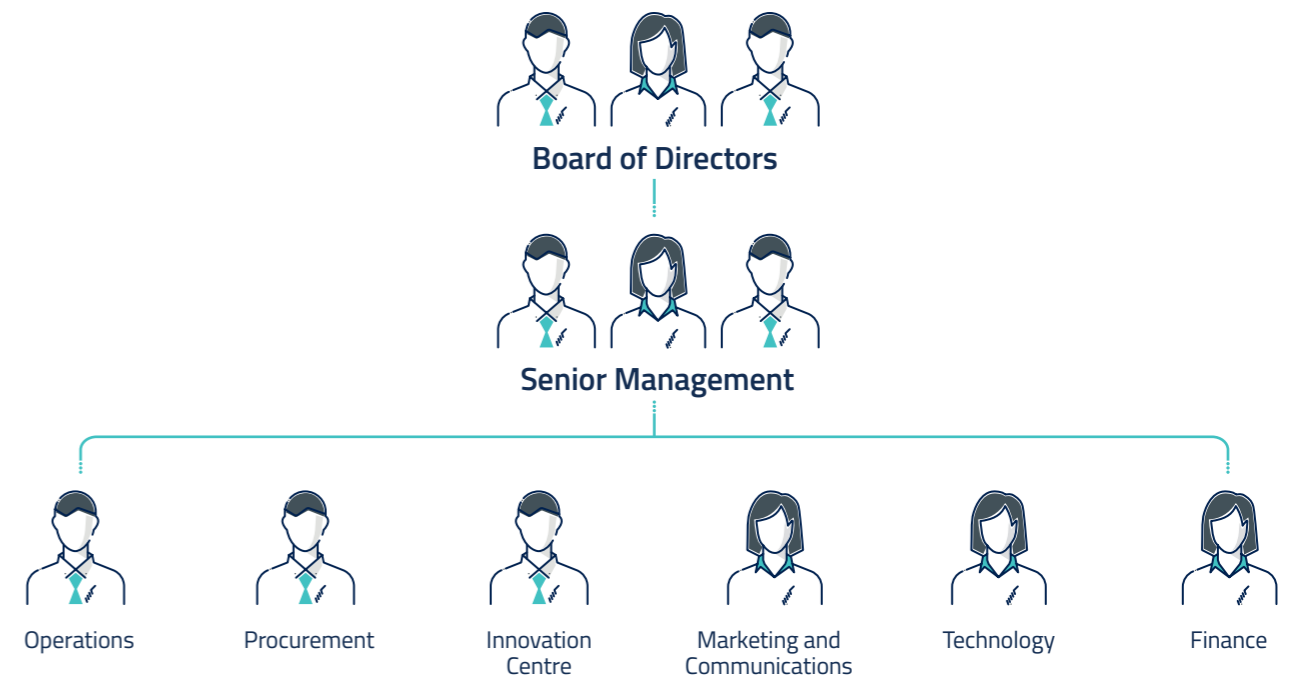
The Board has the ultimate responsibility for the strategy and overall governance of the Group. Recognising the importance of sustainability, the Board oversees the application and progress of our sustainability strategies with the support of the Audit Committee (AC), including reviewing the material topics and sustainability reporting.

At the date of this report, the Board comprises six directors including three independent directors. The Chairman is an independent Board Member. The AC comprises three non-executive directors, the majority of whom, including the AC Chairman, are independent directors.

ESG factors are taken into consideration by the Board when determining the Group's strategic direction and priorities in sustainability. External training is provided to the Board to keep them abreast of the ongoing changes in sustainability.

The senior management team updates and advises the Board on the Group's sustainability initiatives and its progress, as well as matters related to climate-related risks and opportunities. The senior management has the responsibility to identify macroeconomic drivers and sectoral trends, including reviewing actual or potential climate-related issues that are material to the Group, and to make recommendations to the Board as appropriate.

The sustainability core team is a cross-discipline department which is responsible for developing and overseeing the deployment of Pan-United's sustainability initiatives.



Strategy

Our strategic planning review includes identifying sustainability, climate-related risks and opportunities. This is discussed and endorsed by senior management. It forms the foundation for initiatives relating to sustainability and climate change.

We assess the materiality of climate-related risks based on their likelihood of occurrence as well as the estimated magnitude of the resulting financial impact. This is similar to the materiality assessment that is performed for all business risks and opportunities.

Reducing carbon emissions

We have identified speeding up the reduction of carbon emissions as a key action to mitigate climate change risks. The built environment is responsible for up to 40% of annual global carbon emissions, with embodied carbon emissions especially sizeable.

As a building material supplier for the built environment, Pan-United has pledged to develop sustainable concrete products and aims to offer only low-carbon concrete by 2030 and carbon-neutral concrete products by 2040. We conduct extensive research and development (R&D) in specialised low-carbon concrete products; ensuring always that quality is not compromised. We also partner and collaborate with reputable industry bodies to advocate and promote the use of low-carbon concrete.

Our team is also exploring the feasibility of using alternative energy sources, such as solar panels and electric gensets, to power some areas of our operations in Singapore.

Risk Management

Under the Enterprise Risk Management (ERM) framework of the Group, we conduct an annual group-wide risk review that requires business units and corporate functions to identify, assess and document risks. These include ESG-relevant risks, with respective key controls and mitigating measures. Material risks and their associated controls are consolidated and reviewed before they are presented to the Board.

Notably, some of the ESG risks and opportunities identified and mitigated through the ERM framework include:

Regulatory and compliance risks

This is prompted by Singapore's commitment to sustainability and its national climate target to achieve net zero emissions by 2050, as part of its Long-Term Low-Emissions Development Strategy. Of immediate impact to us is the December 2021 Singapore Stock Exchange mandate on all issuers to provide climate reporting that is aligned to the recommendations of the Task Force on Climate-related Financial Disclosures. The sustainability reporting from the financial year (FY) commencing 2022 is on a 'comply or explain' basis. From FY2024, climate reporting will be mandatory for the materials and buildings industry. Our reporting is aligned with the roadmap provided by the Singapore Exchange.

Market risks

This is a transition risk as we expect a shift in demand from traditional construction products to low-carbon emission products. As customers take action to manage climate risk and carbon emissions, we expect an increase in demand for low-carbon solutions. Mitigating measures will include providing low-carbon emission solutions, recycling and reusing sustainable materials, as well as the use of technology. Another measure will be through collaboration with institutions and like-minded partners to advocate low-carbon solutions. An increase in capital expenditure is expected for investments in R&D and new technologies to manage the reduction in carbon emissions.

Climate-related physical risks

Extreme weather, for example torrential rain and floods, may impact the operations of our customers and indirectly affect the demand for our products. However, heavy rain may present us an opportunity to increase water recycling as rainwater harvesting is an important measure for us. Conversely, prolonged dry weather will reduce our recycled water resource.

Inclement weather may also cause supply chain disruptions and result in higher operating costs.

We have started to track the carbon emissions for our Singapore operations. We are in the midst of conducting a more detailed study and analysis to assess the impact of climate-related risks and opportunities on our business operations so as to provide a more holistic and comprehensive sustainability reporting in the upcoming years.

* More than 50% reduction in embodied carbon compared to 2005 levels

Stakeholder Engagement

Stakeholder engagement is vital to sustainable growth and successful long-term relationships. We identify our key stakeholders by assessing their reliance on, involvement with, and influence on our business. Through the various engagement channels, we seek to understand our stakeholders' concern so as to better respond to their needs.

Stakeholders	Interests/Key Concerns of Stakeholders	Commitment to Our Stakeholders	Engagement Channels	Frequency
Customers	<ul style="list-style-type: none"> Quality of products and services Customer requirements Research & development (R&D) collaborations 	<ul style="list-style-type: none"> Ensure high levels of customer service Frequent communication to understand requirements and changing demands 	<ul style="list-style-type: none"> Customer feedback Meetings 	<ul style="list-style-type: none"> Ongoing
Investors/ Shareholders	<ul style="list-style-type: none"> Performance reviews Group financial results Dividend payouts Any matters affecting the Group 	<ul style="list-style-type: none"> Provision of semi-annual announcements and investor-related information on the company website Annual Report, Sustainability Report and other communications such as notices and letters to shareholders, and Proxy Forms on the company website Shareholder participation at general meetings 	<ul style="list-style-type: none"> Annual General Meeting Annual Report Sustainability Report Extraordinary General Meetings SGX announcements Corporate website and social media Email alerts 	<ul style="list-style-type: none"> Annual Ad-hoc Ongoing
Employees	<ul style="list-style-type: none"> Workplace health and safety Employee welfare Training and career development 	<ul style="list-style-type: none"> Employee wellness talks, health screenings Employee training and development Flexible work arrangements 	<ul style="list-style-type: none"> Annual Dinner Staff meetings and discussions Training programmes Internal emails Employee intranet 	<ul style="list-style-type: none"> Annual Ad-hoc Ongoing
Regulators/ Government	<ul style="list-style-type: none"> Environmental compliance Labour standard compliance SGX listing requirements 	<ul style="list-style-type: none"> Collaborations to ensure compliance and achieve high ratings whenever possible 	<ul style="list-style-type: none"> Onsite inspections and visits Meetings Government publications 	<ul style="list-style-type: none"> Ongoing
Suppliers/ Sub-contractors	<ul style="list-style-type: none"> Product quality and delivery schedules Health and safety 	<ul style="list-style-type: none"> Regular meetings to exchange feedback and areas of concern 	<ul style="list-style-type: none"> Meetings Emails 	<ul style="list-style-type: none"> Ongoing

Materiality

We conducted a materiality assessment exercise to identify environmental, social and governance factors which are most important to our stakeholders and parties that are significantly impacted by our business.

Key to this is an annual enterprise risk management exercise which entails the identification, assessment and documentation of material risks and corresponding internal controls. These material risks include sustainable materials, workers' health and safety, and regulatory and legal compliance, which are ESG-relevant.

There have been no changes to our material factors for FY2022. Our focus is to ensure consistency in reporting and tracking over time.

Our material factors are presented below:



Environmental

- Sustainable Materials
- Water Management
- Waste Management



Social

- Diversity and Inclusion
- Occupational Health and Safety

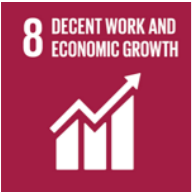


Governance

- Regulatory and Legal Compliance

Sustainable Development Goals at Pan-United

The United Nations' Sustainable Development Goals (SDGs) serve as our sustainability blueprint. We have prioritised seven SDGs to contribute meaningfully through our business and the actions of our people. Each goal comprises multiple targets that are in turn accompanied by specific metrics to help measure the success of our sustainability journey.

	Goal	Our Position	Initiative
	Goal 3 Ensure healthy lives and promote well-being for all at all ages.	We ensure the good physical and mental well-being of our people in the workplace.	We continue to safeguard our employees' health by providing health screenings, medical and dental benefits, and wellness programmes. <i>Welfare and well-being</i>
	Goal 6 Ensure availability and sustainable management of water and sanitation for all.	Water is a key and vital resource in our production and to ensure the health and safety of our people. We must therefore manage this precious resource judiciously.	We continue to treat and reuse wastewater through our water recycling and rainwater harvesting initiatives to help reduce water withdrawal from other sources. Sanitation facilities are kept clean and high hygiene standards are maintained at all times. <i>Water management</i>
	Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	We provide meaningful and sustainable jobs, and are committed to developing and caring for our people.	We practise a caring family culture and fully support the growth and career development of our employees. Effective development and training programmes are made available to upskill or reskill our people. <i>Talent acquisition and management</i>

	Goal	Our Position	Initiative
	Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.	We innovate continuously to bring the best and peace of mind to our customers; we collaborate with like-minded partners including our customers and suppliers, to build resilient infrastructure.	We invest continuously in concrete innovation and sustainable processes to raise standards in the built environment industry. We also invest in sustainable technologies such as carbon capture and utilisation (CCU) technology to produce CO ₂ mineralised concrete. These are initiatives that provide stronger and more durable concrete to address complex needs, including the construction of building superstructures. <i>Sustainable materials</i>
	Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable.	We use technology and innovation to develop solutions for sustainable cities.	We operate in a circular economy using recycled raw materials, upcycled waste materials and CCU technology to produce specialised low-carbon concrete. We encourage and advocate for building owners and their respective consultants, at the planning and design stage, to reduce their embodied carbon emissions upfront by opting for low-carbon concrete to construct building superstructures and substructures. <i>Sustainable materials</i>
	Goal 12 Ensure sustainable consumption and production patterns.	We minimise the environmental impact of our operations and are committed to recycling to ensure sustainable consumption and production.	We implement a wide range of sustainability initiatives and track our progress, as documented in this annual Sustainability Report. <i>FY2022 Sustainability Report</i>
	Goal 17 Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.	We pursue partnerships where we can collaborate with research organisations and academia for sustainable development.	We participated in various events to share our knowledge and expertise on sustainability, including global-scale events such as COP27. <i>Stakeholder engagement</i>

Environmental

As a concrete producer intent on decarbonising cities with greener concrete, Pan-United is committed to minimising our environmental impact.

We believe we can play a pivotal role in tackling the climate crisis through concrete innovation and the use of technology, and by raising greater awareness of the importance of reducing embodied carbon.

Circular use of resources

Our circularity model illustrates how we do more with less. We reduce, reuse and recycle wherever possible. We use sustainable raw or recycled materials in our concrete production, without compromising product safety and quality. Industrial by-products are upcycled and waste materials are reused in place of natural raw materials.

In recent years we have developed new process technologies to produce specialised low-carbon concrete. For instance, carbon capture and utilisation (CCU) technology to produce carbon dioxide (CO₂) mineralised concrete. The process converts industrially-emitted carbon dioxide into solid nano-sized minerals that are permanently embedded in concrete. CCU technology reduces the use of cement and strengthens the concrete at the same time.

Reducing embodied carbon before building completion

We joined hands with one of our long-term project owners PSA Corporation to supply 360,000 cubic metres (m³) of CO₂ mineralised concrete for the construction of the Phase One container berth project at Tuas Port in Singapore. When completed, Tuas Port Phase One will prevent the emission of over 113.8 million kilogrammes of CO₂.

We also collaborated with CapitaLand to provide PanU CO₂ Mineralised Concrete for a 15-storey building at 3 Science Park Drive.

Measuring environmental product impact with EPDs

Beyond optimising resource use, we are constantly on the lookout for new solutions to deliver superior outcomes to customers.

In December 2022, we became the first concrete company in Asia to provide on-demand Environmental Product Declaration certificates (EPDs). An EPD is a third-party verified report disclosing the environmental impact of a specific product based on a cradle-to-grave life cycle assessment. It represents the product's "climate change total" or "global warming potential" quantified in terms of "kgCO₂e" (kilogramme equivalent of carbon dioxide). The EPDs for Pan-United's concrete mix designs are independently audited to the latest international standards such as ISO 14025 and EN 15804+A2.

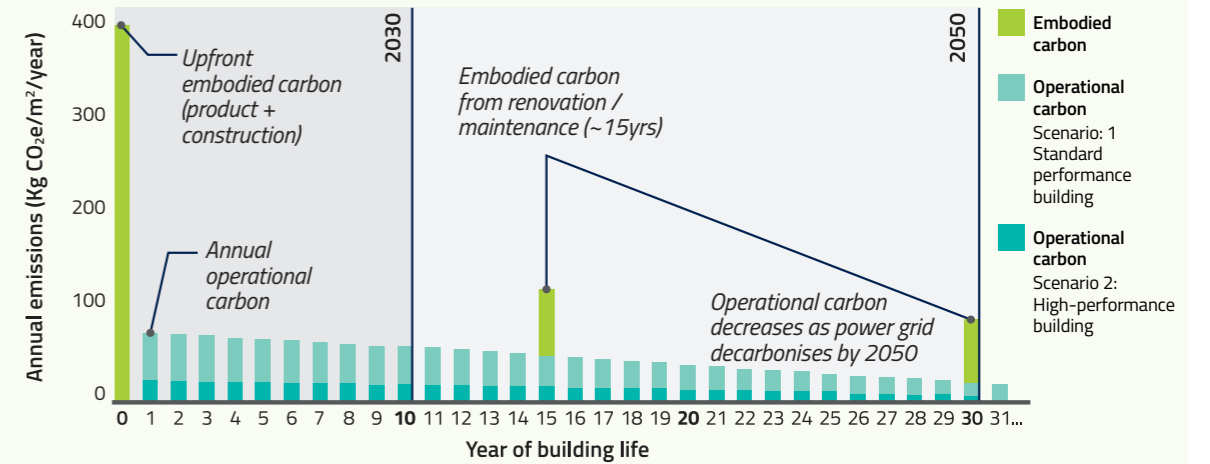
The EPDs enable developers and their appointed contractors and consultants to document and quantify the environmental impact of the types of concrete they use in a project. Thus, they can make better decisions to lower the embodied carbon footprint and set more accurate carbon reduction targets for their building projects before construction commences. We hope that having EPDs in hand will encourage developers to choose greener concrete mixes at the planning stage and accelerate their decarbonisation journeys.

We will continue to work closely with our customers, agencies and industry associations to identify areas to further reduce the embodied carbon footprint of concrete.

DECARBONISATION OF CITIES STARTS WITH LOW-CARBON CONCRETE

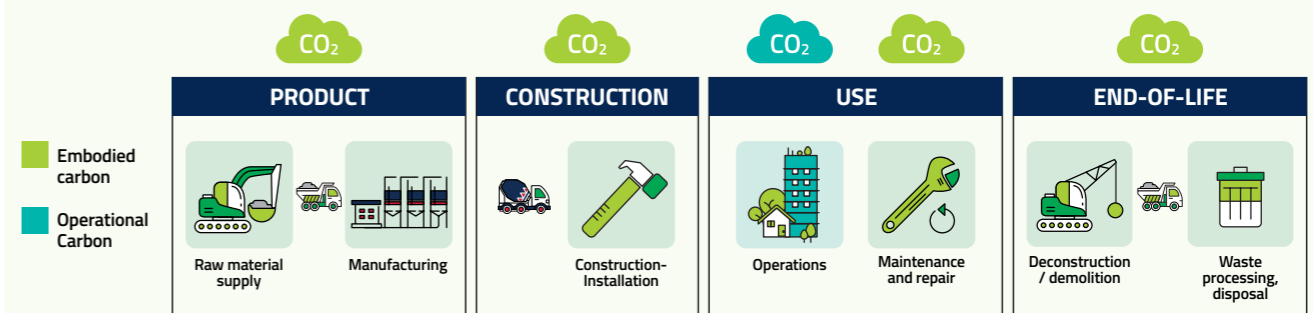
Embodied Carbon refers to the CO₂ emissions generated for the building materials (such as ready-mix concrete, steel and glass) used for the construction of a building.

CARBON EMISSIONS IN A BUILDING'S LIFESPAN



© Copyright 2020, Carbon Leadership Forum

Operational Carbon refers to the CO₂ emissions over the life of a building in terms of its energy consumption, mainly for lighting and air-conditioning.



Building owners can reduce substantial CO₂ emissions by using low-carbon concrete



Sustainable Materials

Achieving a sustainable concrete value chain is critical to the future of Pan-United.

Sustainable materials and processes will contribute to enhancing the operational efficiency of the Group over the long term, which will in turn build resilience to climate change risks.

Management Approach

A key priority for Pan-United in FY2022 was, and still is, to reduce embodied carbon emissions.

During the year in review, we recycled and reused raw materials. These include ground granulated blast furnace slag (GGBS), recycled concrete aggregates and washed copper slag. We also used novel technologies like CCU technology, where industrial waste CO₂ is injected directly into, and mineralised within the concrete.

These efforts have helped to reduce the proportion of cement required in each cubic metre of concrete. For every cubic metre of concrete produced, up to 270kg of CO₂ emissions are saved from being released into the atmosphere.

Notably, PanU CO₂ mineralised concrete is the first and only such concrete to achieve the “Leader” sustainability certification – the highest rating – under the Singapore Green Building Product scheme.

The year was memorable as we started supplying CO₂ mineralised concrete to various major projects. A prime project was CapitaLand’s 15-storey building at 3 Science Park Drive, which was the first superstructure in Singapore to use CO₂ mineralised concrete. Other sizeable projects include the berths and stacking yards at the Tuas Port Phase One project, and a 34-storey commercial building in the Labrador area.



We continue to participate in the Waste Management Recycling Association of Singapore (WMRAS) accreditation scheme, which examines our recycled concrete aggregates and crushers. The scheme includes an annual audit.

Advocating low-carbon

To galvanise stakeholders into action, we participated in various presentations and conferences to raise awareness of the importance of embodied carbon. We assiduously made efforts to encourage industry players to adopt our low-carbon concrete solutions.

In FY2022, we were also invited by the Ministry of Sustainability and the Environment to participate in Singapore’s inaugural pavilion at COP27 in Egypt. We shared about Pan-United’s sustainability initiatives, including our use of alternative recycled raw materials and CCU technology in concrete.

The many speaking events and exhibitions that we participated in included technical seminars such as the World Green Building Council’s Net Zero Solutions Around the World in 24 hours and the International Built Environment Week.

Performance

The volume of recycled materials used in our concrete products increased by 0.3 percentage points, from 9.0% in FY2021 to 9.3% in FY2022 on a much higher volume of concrete supplied post-Covid. While marginally short of our 9.5% target, it makes us more determined to enlarge the proportion of recycled materials used in our products in FY2023.

Targets

FY2022 Targets	FY2022 Performance
Carbon footprint analysis to be completed by FY2022	As at 31 December 2022, the carbon footprint analysis was completed for the use in the EPDs
Increase the proportion of recycled materials used in our products to 9.5%	Recycled materials make up 9.3% of our concrete mixes, 0.2% short of our target
FY2023 Target	
Increase the proportion of recycled materials used in our products to 10.0%	



Water Management

Water is a vital resource that is critical to the production of concrete.

Pan-United recognises that unsustainable use of this precious natural resource can lead to water risks and stress, particularly in water-scarce communities, and aggravate the physical impact of climate change. We are committed to reduce freshwater withdrawal and will continue to manage our water consumption through active monitoring and water recycling programmes.

Management Approach

We harvest rainwater in mini-water treatment plants located at our industrial sites. The rainwater collected is used for activities such as washing trucks and wetting floors at sites to control dust particle levels in the air. Treated and processed municipal water is used mainly in our production processes.

Still, we continue to look for more water-efficient processes in order to reduce overall water consumption. We want to reduce our reliance on rainwater while increasing the use of recycled water.

Grey water, or untreated used water, is not used in production. It is channelled to miscellaneous activities like washing trucks. We continue to actively explore alternatives and diversify our sources of recycled water to ensure sustainable water use.

Performance

We used all the water that we withdraw. We did not discharge any wastewater, nor withdraw any water from water-stressed regions.

Space constraints limit the number of mini-water treatment plants that we can set up at our industrial sites. As far as possible, we collect rainwater for use at our batching plants so as to reduce the quantity of water purchased from third-party providers. Total water consumption for FY2022 was 1,063,609 cubic meters, of which, 3.3% was from recycled water and the remaining was sourced from a third-party provider. This was 3.9 percentage points lower than FY2021, mainly attributable to lower rainfall levels in FY2022 and consequently, less rainwater collected.

Targets

FY2022 Targets	FY2022 Performance
Explore new avenues for water recycling	Exploration of water recycling methods is ongoing
Increase proportion of water recycled to 7.5%	We did not meet the target due to a lower level of rainfall experienced in FY2022, resulting in less rainwater collected. We will work on increasing the use of recycled water.
FY2023 Targets	
Explore new avenues for water recycling	
Increase proportion of water recycled to 7.5%	

Waste Management

In the course of our operations, the waste generated is inevitable. This is especially for concrete not used by our customers. Reducing and recycling waste is therefore crucial in order to minimise the stress on our natural environment.

Our circularity model provides guidance on minimising the negative impact on the environment.

We manage our waste generation and disposal responsibly. We also reduce waste as far as possible by recovering the remaining resources at the end of the life of a product. We use recycled waste materials in our concrete production, either those generated earlier by us or brought in by third-parties.

Management Approach

Our main sources of waste are concrete waste and sludge. We recycle superfluous material or waste, such as unused concrete returned by our customers, back into concrete production. These waste products, referred to as recycled concrete aggregates, constitute a key ingredient in concrete.

We also engage third-party contractors to reuse our sludge waste for important processes including:

- Backfilling,
- Temporary access, and
- Stabilising slopes to prevent erosion or landslides.

We have eliminated our use of paper for delivery orders and invoices, having fully transitioned to paperless processes with electronic delivery orders and electronic invoicing. We continue to provide paper recycling bins for general non-confidential documents. These bins are periodically emptied by our external vendors. Our employees have adapted well to our paper waste management initiatives and consciously seek to reduce the amount of waste disposed.

Performance

We did not produce any hazardous waste in FY2022. Total non-hazardous waste generated from our operations in FY2022 was 274,382 metric tonnes, equivalent to 2.7% of our total input materials used. This 0.3-percentage point increase in non-hazardous waste generated (as compared to 2.4% of total input materials used in FY2021) is attributed to a higher volume of concrete returned by customers. We continue to recycle 100% of all non-hazardous waste generated.

Target

FY2022 Target	FY2022 Performance
Reduce non-hazardous waste generation to 2.0% of the total input materials used in FY2022	Non-hazardous waste generation increased to 2.7%, due to the higher volume of returned concrete
FY2023 Target	
Reduce non-hazardous waste generation to 2.0% of the total input materials used in FY2023	

Social



Our employees are integral to the success of our business. We care about the well-being, development and safety of every employee in the Group. We also take pride in fostering inclusivity among employees and building their sense of belonging.

It is important to us to remain an employer of choice as we continually attract, retain and develop talent.

A summary of our group-wide workforce as at 31 December 2022 is provided, as follows:



Our employees²

	Male	Female	Total
Singapore	391	102	493
Malaysia	115	29	144
Vietnam	75	21	96
Indonesia	295	8	303
Total	876	160	1,036

Permanent employees

	Male	Female	Total
Singapore	391	102	493
Malaysia	115	29	144
Vietnam	73	21	94
Indonesia	283	6	289
Total	862	158	1,020

Temporary employees

	Male	Female	Total
Vietnam	2	-	2
Indonesia	12	2	14
Total	14	2	16

Full-time employees

	Male	Female	Total
Singapore	390	102	492
Malaysia	115	29	144
Vietnam	75	21	96
Indonesia	295	8	303
Total	875	160	1,035

There is only 1 part-time employee in the Group, who is a male based in Singapore.

As at 31 December 2022, there are 97 workers who are non-employees whose work is controlled by the organisation. These non-employees are mainly involved in the manufacturing and delivery of ready-mix concrete to our customers.

Diversity and Inclusion

Pan-United celebrates diversity and embraces differences. We empower our employees to use their diverse backgrounds, thoughts and ideas to collaborate with one another and develop creative solutions. We are a fair and responsible employer. Pan-United adheres to equal employment practices and does not tolerate any form of workplace discrimination, harassment or violence. Employees are regularly assessed based on work-related and performance-related criteria.

Management Approach

Talent Acquisition and Management

Our people are our most valuable asset. We are committed to attracting, retaining and nurturing our people, to build an inclusive organisation where employees are engaged and have a rewarding career with us.

We participated in university career fairs at the different universities, including Nanyang Technological University (NTU). We continued to offer internships to undergraduate students enrolled at the National University of Singapore (NUS), NTU, and Singapore Institute of Technology (SIT). We also offered high performing interns full-time employment contracts upon graduation.

In FY2022, there was an intense focus on employee engagement, workers' safety, improving working conditions and upskilling.

We encourage our employees to take charge of their personal and professional growth and learning. We have implemented training programmes to equip talented employees with the right knowledge and skills to progress in their careers. During the year, selected managers, assistant managers and team leads attended a three-day workshop (Team Leadership Toolkit) to hone their leadership and coaching skills.

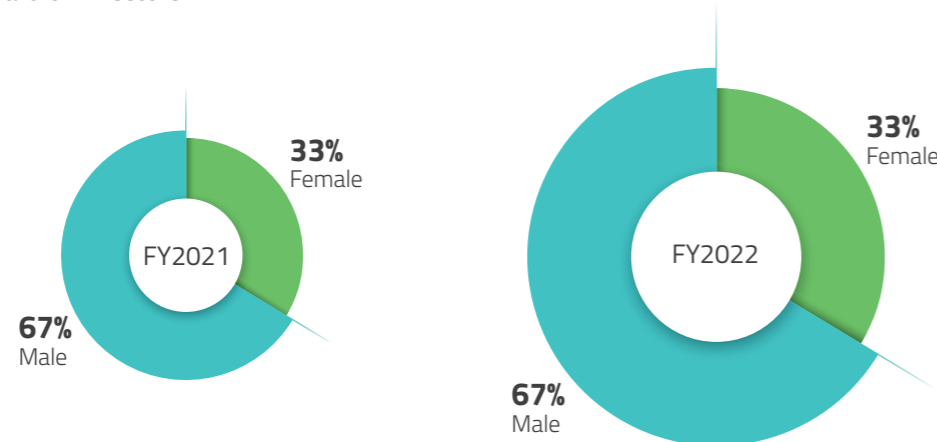
Managers are also given the flexibility to propose courses and/or training that they deem useful to their team members. Consequently, team members can be offered relevant projects and external learning opportunities to improve and develop new or existing capabilities.

Across the Group, we made strides in our business through stronger employee engagement and collaboration. As we deepen our capabilities to decarbonise and digitalise the built environment, we will continue to identify new ways to strengthen our employees' career resilience and enable them to be digitally ready.

² Our employees are not covered by collective bargaining agreements and neither are the working conditions and terms of employment based on collective bargaining agreements.

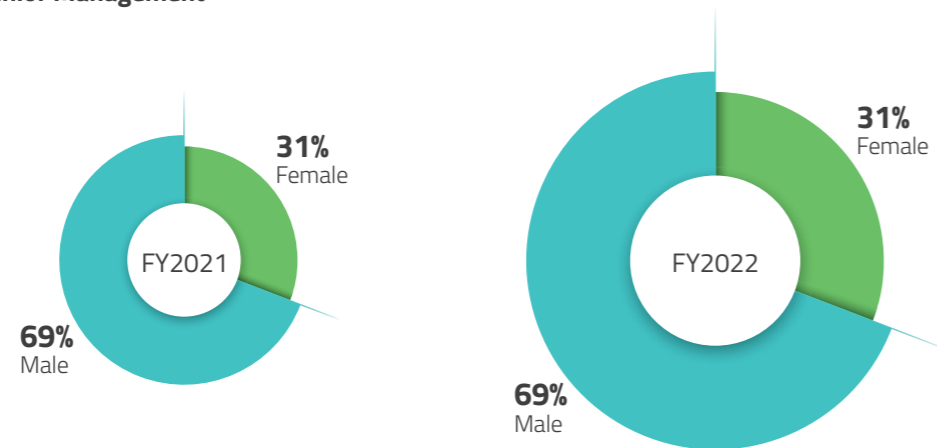
Performance³

Board of Directors

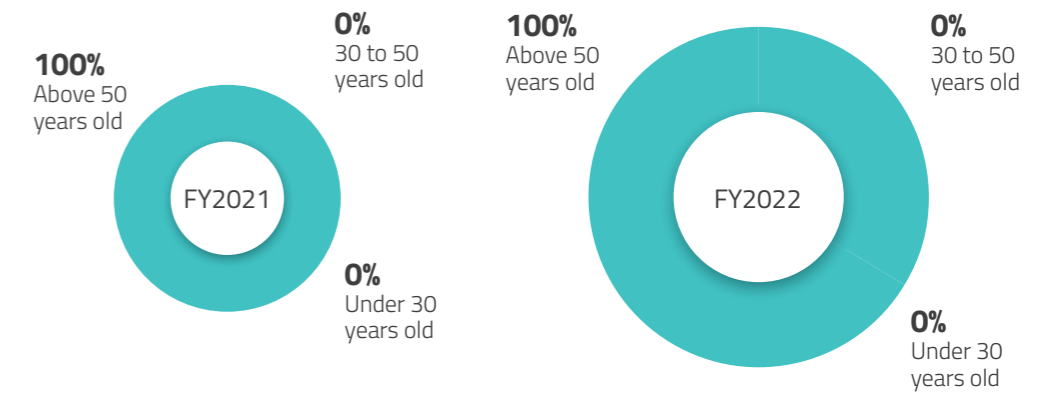


Upper Management by Gender

Senior Management

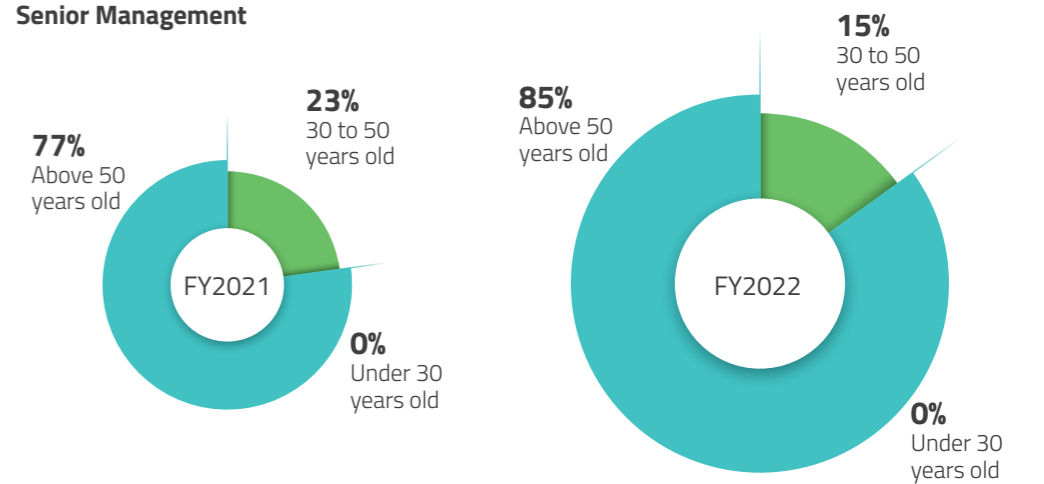


Board of Directors



Upper Management by Age Category

Senior Management

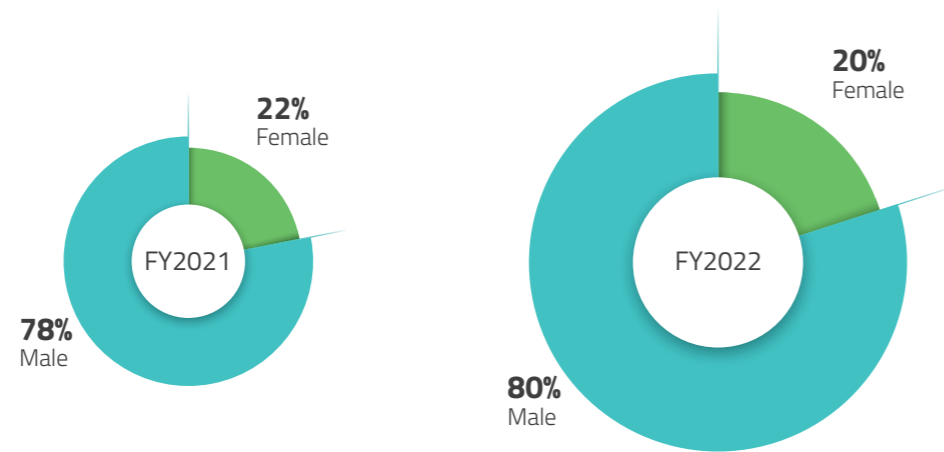


100% of our Board of Directors are ethnically Chinese.

³ The performance summarises the Singapore workforce.
22

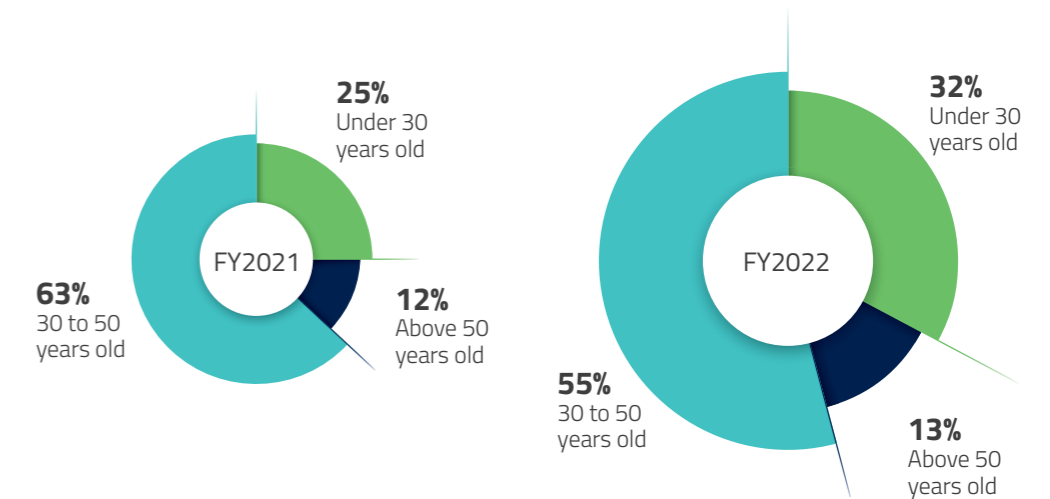
Performance (continued)

Employees by Gender



	Senior Management	Managers	Officers	Juniors	Total
FY2021					
Male	2%	8%	32%	36%	78%
Female	1%	3%	14%	4%	22%
FY2022					
Male	2%	7%	37%	34%	80%
Female	1%	3%	13%	3%	20%

Employees by Age Category



	Senior Management	Managers	Officers	Juniors	Total
FY2021					
Above 50 years old	2%	3%	5%	2%	12%
30 to 50 years old	1%	7%	29%	26%	63%
Under 30 years old	0%	1%	12%	12%	25%
FY2022					
Above 50 years old	2%	3%	5%	3%	13%
30 to 50 years old	0%	7%	24%	24%	55%
Under 30 years old	0%	0%	21%	11%	32%

Targets

FY2022 Targets	FY2022 Performance
To continue fair remuneration for employees based on their contributions, merit and performance	Employees continued to be remunerated fairly based on their performance and conduct at work
Implement a diversity and inclusion strategy and policy by FY2022	Committed to a policy of equal employment opportunity. Employees are assessed solely based on work-related and performance-related criteria.
FY2023 Target	
To continue fair remuneration for employees based on their contributions, merit and performance	



Occupational Health and Safety

Pan-United takes safety very seriously. We remain committed to and are vigilant in ensuring the health and safety of all our employees and contract workers. Proper risk control measures and safe work procedures have been implemented to prevent accidents.

2022 was a year where workplace safety came under the spotlight. Companies in the construction sector were under close scrutiny after multiple workplace fatalities and injuries. To keep workers safe and healthy, and prevent the occurrence of more work-related accidents, Singapore’s Ministry of Manpower imposed a heightened safety period in September 2022 for six months, which was further extended by three months from 1 March 2023 to 31 May 2023, with additional measures introduced.

Management Approach

Our internal risk management system and processes are consistent with SS506 guidelines. Two subsidiaries remained ISO 45001-certified in FY2022.

We introduced several workplace health and safety initiatives as part of the safety policy in FY2022. Safety banners and posters are already in place at prominent areas in our batching plants and offices to remind all employees of the importance of workplace safety. Monthly safety committee meetings are organised to raise any safety issues, report non-compliance and take rectification measures. Before entering any of our batching plants, all staff and visitors are also required to undergo a comprehensive safety briefing.

We continue to conduct various occupational health and training sessions for our employees, which include:

- Developing a risk management implementation plan to learn how to identify, assess and control risks, as well as develop safe workplace procedures;
- Learning the correct techniques of performing lifting activities in a safe manner; and
- Applying workplace safety and health practices at construction sites, to learn about general safe workplace procedures at the construction site, preventive measures, and emergency response plans.

Performance	For Employees		For non-employees whose work and/or workplace is controlled by the organisation	
	FY2021	FY2022	FY2021	FY2022
Number of fatalities as a result of work-related injuries	0	0	0	1
Number of high-consequence work-related injuries (excluding fatalities)	0	0	0	0
Number of recordable work-related injuries	9	3	6	3
Total work-related injuries	9	3	6	4
Rate of fatalities as a result of work-related injuries based on 200,000 hours worked	0	0	0	0.50
Rate of high-consequence work-related injuries based on 200,000 hours worked	0	0	0	0
Rate of recordable work-related injuries based on 200,000 hours worked	2.27	0.67	4.19	1.51
Number of hours worked	793,096	900,060	286,392	396,890

No high-consequence injuries were reported during the year. Work-related injuries were primarily minor injuries to the limbs.

In 2022, unfortunately, we suffered one fatality with a non-employee, due to unusually severe weather that brought gusty winds and heavy rainfall. We have thoroughly investigated the incident and put in place enhanced measures to prevent a recurrence.

To prevent the occurrence of work-related accidents, we strengthened our workplace health and safety procedures, and consistently highlight the importance of workplace safety.

Targets

FY2022 Targets	FY2022 Performance
Reduce rate of recordable work-related injuries to less than 5 cases in FY2022	A total of 6 work-related injuries to employees and non-employees were recorded in FY2022. We aim to minimise the incidents to less than 5 cases in FY2023.
Maintain zero high-consequence injuries across our operations	Achieved zero high-consequence injuries
Maintain zero fatalities across our operations	One fatality of a non-employee occurred. We have stepped up our workplace health and safety procedures to prevent a future recurrence.
FY2023 Targets	
Reduce recordable work-related injuries to less than 5 cases in FY2023	
Maintain zero high-consequence injuries across our operations	
Achieve zero fatalities across our operations	

Employee conduct

We are committed to conducting business in accordance with all applicable laws, rules, regulations and to the highest ethical standards.

The Employee Code of Conduct sets out guiding principles for employees to carry out their duties to the highest standards of business integrity. These cover areas of conduct in the workplace, business and legal conduct, conflicts of interest, as well as prohibitions against bribery and corruption. The full version of the Employee Code of Conduct is available and accessible to all employees through our intranet portal.

Employees are continually kept aware of the importance of complying with relevant laws and rules. All employees across the Group are required to go through annual refresher training and to acknowledge the Code of Conduct. Employees who violate the Code face disciplinary action, including termination of employment.

Welfare and well-being

We aim to provide a work environment that is safe and contributes to the general well-being of our employees. All our employees under the age of 50 receive health screenings every two years, while employees above 50 years of age are entitled to annual comprehensive health screenings. Employees above 60 years of age are also given complimentary pneumococcal vaccination.

All employees also have access to company-sponsored, confidential mental well-being counselling services.

In the event that employees have grievances, we have well-defined, accessible and trusted channels through which employees can make a report.

Governance

We are committed to being transparent and ethical in all matters, and have governance policies and procedures in place that we strictly adhere to.

Regulatory and Legal Compliance

We are subjected to regulations established by the Ministry of Manpower (MOM), the National Environment Agency (NEA) and the Singapore Exchange (SGX).

Management Approach

We work closely with government agencies that guide us in best practices for environmental, regulatory and legal compliance.

All our batching plants are subjected to periodic ad-hoc inspections by the NEA. Pest control checks continue to be conducted once a week in FY2022 to prevent any breeding grounds for mosquitoes.

The Pollution Control Department ensures that best practices are observed for dust control. Dust collection systems are being used to filter away cement dust, allowing for filtered air to be released into the environment. Sprinkler systems are installed at all batching plants to wet the grounds around the facilities, to suppress airborne dust during vehicular movements. We continue to check drains and prevent blockages as part of flood prevention measures.

Performance

Despite our best efforts in FY2022, we had 7 minor instances of non-compliance with safety regulations. A total of \$9,400 of fines were paid during the year as a result of these acts of non-compliance. There were no significant instances of non-compliance in FY2022. Management views significant non-compliance as incidents which would have an impact on operations, such as resulting in a stop-work order or incidents which result in monetary fines of more than \$10,000.

Target

FY2022 Target	FY2022 Performance
Have no instances of safety or environmental regulatory non-compliance in FY2022	Seven minor instances of safety non-compliance in FY2022
FY2023 Target	
Have no instances of safety, environmental or legal non-compliance in FY2023	

External Initiatives and Memberships of Associations

- Waste Management Recycling Association of Singapore (WMRAS)
- Singapore Green Building Council (SGBC)
- Singapore Institute of Building Limited
- Ready-Mixed Concrete Association of Singapore
- Singapore Concrete Institute
- Tunnelling and Underground Construction Society (Singapore)
- The Institution of Engineers, Singapore

Appendix

Key Environmental and Social Performance Indicators

	2020	2021	2022
Environmental Performance			
Volume of recycled materials used in concrete products (%)	8.4%	9.0%	9.3%
Volume of recycled water used (%)	0%	7.2%	3.3%
Proportion of non-hazardous waste generated to total input materials used (%)	2.8%	2.4%	2.7%
Social Performance			
Total number of employees in Singapore	379	450	493
By Gender			
Senior Management			
▪ Male	2%	2%	2%
▪ Female	1%	1%	1%
Managers			
▪ Male	9%	8%	7%
▪ Female	3%	3%	3%
Officers			
▪ Male	33%	32%	37%
▪ Female	15%	14%	13%
Juniors			
▪ Male	33%	36%	34%
▪ Female	4%	4%	3%

	2020	2021	2022
By Age Group			
Senior Management			
▪ Above 50 years old	3%	2%	2%
▪ 30 to 50 years old	0%	1%	0%
Managers			
▪ Above 50 years old	5%	3%	3%
▪ 30 to 50 years old	6%	7%	7%
▪ Under 30 years old	1%	1%	0%
Officers			
▪ Above 50 years old	7%	5%	5%
▪ 30 to 50 years old	29%	29%	24%
▪ Under 30 years old	12%	12%	21%
Juniors			
▪ Above 50 years old	3%	2%	3%
▪ 30 to 50 years old	20%	26%	24%
▪ Under 30 years old	14%	12%	11%
Occupational Health and Safety (For employees)			
Number of fatalities	-	-	-
Rate of high-consequence work-related injuries (Per 200,000 hours worked)	-	-	-
Rate of recordable work-related injuries (Per 200,000 hours worked)	1.66	2.27	0.67

GRI Content Index

Statement of use: Pan-United Corporation Ltd has reported the information cited in this GRI content index for the financial year 1 January 2022 to 31 December 2022, with reference to the GRI standards.

GRI 1 used: GRI: Foundation 2021

Disclosure Number	Disclosure Title	Reference
GENERAL DISCLOSURES		
2-1	Organisational details	About Us, 2
2-2	Entities included in the organisation’s sustainability reporting	About This Report, 1
2-3	Reporting period, frequency and contact points	About This Report, 1
2-4	Restatements of information	About This Report, 1
2-5	External assurance	About This Report, 1
2-6	Activities, value chain and other business relationships	About Us, 2
2-7	Employees	Social, 20
2-8	Workers who are not employees	Social, 21
2-9	Governance structure and composition	Sustainability Governance, 7
2-10	Nomination and selection of the highest governance body	Annual Report, 27 to 28
2-11	Chair of the highest governance body	Sustainability Governance, 7
2-12	Role of the highest governance body in overseeing the management of impacts	Annual Report, 24 to 25
2-13	Delegation of responsibility for managing impacts	Annual Report, 24 to 25
2-14	Role of the highest governance body in sustainability reporting	Sustainability Governance, 7
2-15	Conflicts of interest	Annual Report, 24 to 25
2-16	Communication of critical concerns	Annual Report, 34
2-17	Collective knowledge of the highest governance body	Annual Report, 25
2-18	Evaluation of the performance of the highest governance body	Annual Report, 28 to 29

Disclosure Number	Disclosure Title	Reference
GENERAL DISCLOSURES		
2-19	Remuneration policies	Annual Report, 29
2-20	Process to determine the remuneration	Annual Report, 29
2-21	Annual total compensation ratio	Given the sensitivity and confidentiality of remuneration matters and the highly competitive industry conditions of the Group’s operations, the Group did not disclose Requirements (a), (b) and (c) of this disclosure.
2-22	Statement on sustainable development strategy	Board Statement, 4
2-23	Policy commitments	Employee Conduct, 27
2-24	Embedding policy commitments	Employee Conduct, 27
2-25	Processes to remediate negative impacts	Annual Report, 34, Stakeholder Engagement, 10, Welfare and well-being, 27
2-26	Mechanisms for seeking advice and raising concerns	Stakeholder Engagement, 10
2-27	Compliance with laws and regulations	Governance, 28
2-28	Membership associations	External Initiatives and Memberships of Associations, 29
2-29	Approach to stakeholder engagement	Stakeholder Engagement, 10
2-30	Collective bargaining agreements	Our employees are not covered by collective bargaining agreements and neither are the working conditions and terms of employment based on collective bargaining agreements.

Disclosure Number	Disclosure Title	Reference
MATERIAL TOPICS		
3-1	Process to determine material topics	Materiality, 11
3-2	List of material topics	Materiality, 11
GRI 301: MATERIALS 2016		
3-3	Management of material topics	Sustainable Materials, 16 to 17
301-2	Recycled input materials used	Sustainable Materials, 16 to 17
GRI 303: WATER AND EFFLUENTS 2018		
3-3	Management of material topics	Water Management, 18
303-3	Water withdrawal	Water Management, 18
GRI 306: WASTE 2020		
3-3	Management of material topics	Waste Management, 19
306-3	Waste generated	Waste Management, 19
306-4	Waste diverted from disposal	Waste Management, 19

Disclosure Number	Disclosure Title	Reference
GRI 405: DIVERSITY AND EQUAL OPPORTUNITIES 2016		
3-3	Management of material topics	Diversity and Inclusion, 21 to 25
405-1	Diversity of governance bodies and employees	Diversity and Inclusion, 21 to 25
GRI 403: OCCUPATIONAL HEALTH AND SAFETY 2018		
3-3	Management of material topics	Occupational Health and Safety, 26 to 27
403-1	Occupational health and safety management system	Occupational Health and Safety, 26 to 27
403-5	Worker training on occupational health and safety	Occupational Health and Safety, 26 to 27
403-6	Promotion of worker health	Occupational Health and Safety, 26 to 27
403-9	Work-related injuries	Occupational Health and Safety, 26 to 27



Pan-United Corporation Ltd

(Company Registration No. 199106524G)

7 Temasek Boulevard
#16-01 Suntec Tower One
Singapore 038987

Tel: 6305 7373 Fax: 6305 7345
Email: info@panunited.com.sg

www.panunited.com.sg