



ENVIRONMENTAL SUSTAINABILITY DISCLOSURE REPORT FY2024

HEALTH SCIENCES AUTHORITY



Table of Contents

Introduction

About HSA: Vision, Mission, Our Core Values & Roles	3
About This Report	4

A Message from Our Board Member and CEO	6
---	---

Sustainability Performance

FY2024 Sustainability Highlights	8
--	---

Governance Structure

Governance	10
Sustainability Through Governance	
Enterprise Risk Management	

Environmental Impact, Indicators, Targets & Performance	12
Environmental Impacts	
Greenhouse Gas (GHG) Emission	
Energy Consumption, EUI	
Water Consumption, WEI	
Waste Generation, WDI	
Recycling Rate	

Sustainability Initiatives

Fostering Sustainability in HSA	21
Incorporating Sustainability Into Processes	
Our Journey to Nurturing a Sustainable Culture & Community	

About Health Sciences Authority

Vision

To be the leading innovative authority protecting and advancing national health and safety.

Mission

To wisely regulate health products, to serve the administration of justice, to secure the nation's blood supply, and to safeguard public health.

Our Core Values



Service to the Nation

We are part of the Singapore Public Service, committed to integrity, excellence, and efficiency.



Passion for Excellence

We aim to be the best in all that we do.



Develop our Community

We value our people and build trusted teams.



Inspire Trust

We act with credibility, professionalism, and integrity, to instil public trust and confidence.



Live Innovation

We seek to constantly improve and transform.

Our Roles



Health Products Regulation Group (HPRG)

We regulate health products to meet standards of safety, quality and efficacy.



Blood Services Group (BSG)

We secure the nation's blood supply by ensuring a safe and adequate blood supply for public and private hospitals.



Applied Sciences Group (ASG)

We serve the administration of justice through the use of forensic medicine, forensic science and analytical chemistry testing.



Corporate Services Group (CSG)

We define the strategic direction and provide corporate support for the Authority and its three professional groups to achieve HSA's vision and mission through effective policies and guidelines, efficient processes and strategic coordination.



About This Report

Scope and Reporting Boundary

The Health Sciences Authority's (HSA) Environmental Sustainability Report marks the publication of our second sustainability report, following our inaugural report. This report covers environmental sustainability performance and activities across HSA premises from 1 April 2024 to 31 March 2025.

This report aligns with the guided metrics and considerations provided by GreenGov.SG* reporting requirements, ensuring consistency and accountability across public sector disclosures while adopting a structured approach to highlight our governance, environmental, and social commitments. Drawing on broader sustainability reporting practices ensures that our reporting remains transparent, relevant and robust to support public accountability and long-term credibility.

This disclosure report covers HSA's operations across Singapore. Apart from our owned premises located at 11 Outram Road, HSA operates as a tenant in other premises at SGH Block 9, Synapse @ Biopolis Way, Helios @ Biopolis Drive, Capricorn @ Science Park II, and four satellite Bloodbanks located at Woodlands, Westgate Tower, Dhoby Xchange, and One Punggol.

*Launched in 2021, GreenGov.SG is a key enabler of the Singapore Green Plan 2030. "GreenGov.SG" reflects the cross-cutting role of the Government in supporting the national sustainability agenda

Introduction





Prof Tai Lee Siang
Board Member, HSA

Adj. Prof (Dr)
Raymond Chua
CEO, HSA

A Message from our Board Member and CEO

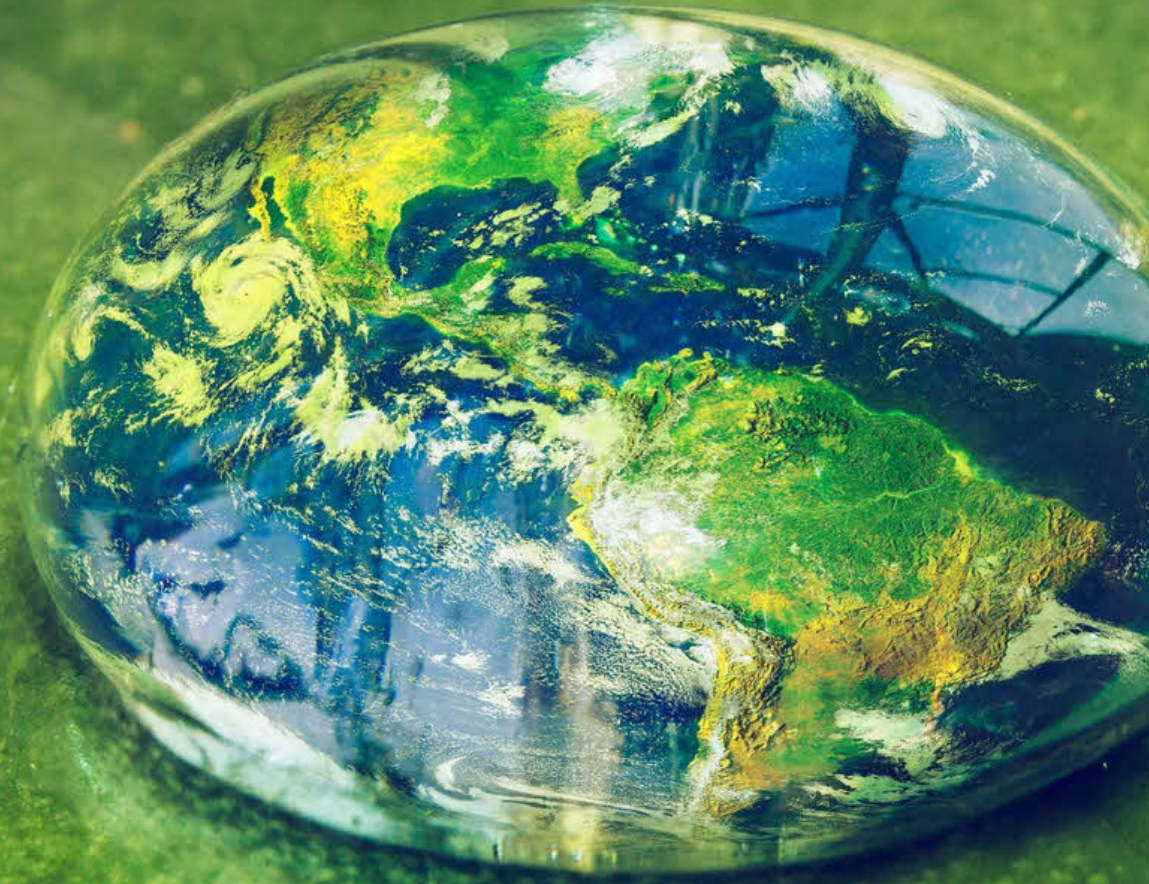
At the Health Sciences Authority (HSA), sustainability is integral to our mission. As both Board and Management, we recognise that safeguarding health must go hand in hand with protecting the environment for future generations.

In FY2024, HSA continued to make steady progress in our environmental journey. We achieved measurable improvements in energy savings, water efficiency, and waste reduction, supported by practical initiatives such as optimising building systems, introducing energy-efficient equipment, and digitalising work processes. These changes have not only reduced our environmental footprint but also strengthened a culture of sustainability across the organisation.

Equally important is the commitment of our people. From staff-led clean-ups and donation drives to participation in national campaigns to conserve energy, our colleagues have demonstrated that sustainability is about collective responsibility. These efforts remind us that lasting change comes not only from technology and systems, but also from values and habits embedded in daily work.

Looking ahead, HSA will continue to build on this momentum. Guided by our phased environmental targets, we will invest in green innovations, nurture sustainability skills across our workforce, and influence the healthcare ecosystem through leadership and example. The Board remains committed to providing strong governance and direction, while Management will continue driving initiatives that deliver impact upon the ground.

We are proud of the progress achieved so far, and grateful to every staff member and partner who has contributed to this journey. Together, we will ensure that HSA advances public health in a way that is sustainable, responsible, and future-ready.



Sustainability **Performance**

FY2024 Sustainability Highlights

Environmental

↓ 11.11% EUI
from baseline

↓ 19.56% WEI
from baseline

↓ 32.56% WDI
from baseline

Recycling ratio + 54%
compared to FY2023

Improved temperature
setpoint by 2°C in the
Pharmaceutical Laboratory

Improved temperature
setpoint by 1°C in
the data centre

In Support of:



Social

253 staff completed
94 transformation
projects

30 employees are
appointed as HSA
Wellness ambassadors

Quarterly
Eat-with-Family Day

34 staff
participated in
SG Clean day

In Support of:





Governance Structure



Governance

Sustainability Through Governance

Strong Foundation and Board Oversight

Established in 2023, HSA's corporate sustainability governance continues to strengthen through senior management leadership, ensuring that environmental improvement and corporate social responsibility remain integral to our organisational operations. HSA recognises that effective governance forms the foundation of our sustainability commitment, with our Board providing oversight of environmental risks and opportunities through a dedicated governance structure that integrates sustainability considerations into strategic decision-making processes.

Operational Governance Through HSA Sustainability Committee

The HSA Sustainability Committee, now in its second year of operation, has refined its governance framework and expanded its scope of influence across the organisation. Led by the Group Director of Corporate Services Group and supported by the Secretariat, the Committee comprises cross-functional representatives and has enhanced its strategic oversight capabilities while deepening its impact upon sustainability initiatives in daily operations.



During this reporting period, the Committee has maintained its established monitoring and reporting structure while focusing its priorities on staff engagement in the sustainability journey. Through targeted communications, learning opportunities, and participatory initiatives, staff are being empowered to embrace sustainable thinking and practices that contribute to environmental improvement and positive social impact.

The Committee continues to track sustainability efforts and indicators across existing operations, including ongoing initiatives in laboratories, facilities operations and the data centre, while preparing for the transition to the new facility. Regular reviews assess potential environmental impacts on our core functions, enabling the development of strategies that maintain service continuity while minimising environmental footprint.

Enterprise Risk Management

At HSA, effective governance is underpinned by a robust risk management framework that ensures operational resilience, regulatory compliance, and the safety of our people and stakeholders.

HSA's Enterprise Risk Management (ERM) framework, established in 2016, provides a structured foundation for integrating sustainability considerations into our risk management processes. Operating through a Risk Steering Committee (RSC) chaired by the CEO and supported by the Risk Working Committee, our ERM framework addresses both the strategic and operational risks that could impact our ability to achieve organisational missions.

Risk Assessment and Sustainability Integration

HSA employs the typical five-step risk management approach that encompasses risk identification, assessment, mitigation, monitoring, and review. The framework can accommodate sustainability risks by assessing their potential impact upon our strategic objectives related to public health protection, operational resilience, and stakeholder confidence. Climate-related risks, resource scarcity, and environmental compliance requirements could be systematically managed and reported as part of our organisational risk profile.

Our risk management strategies are continuously reviewed by the RSC, Audit & Risk Committee (ARC) and HSA Board to ensure the adequacy and effectiveness of the risk management framework through periodic risk monitoring and reporting. HSA ensures that sustainability risks are proactively managed, supported by a risk-aware culture that promotes informed decision-making across all organisational levels. To inculcate a risk-aware culture in HSA, ERM training is conducted annually to ensure staff are equipped with the necessary knowledge, skills, and mindset for risk management.

Environmental Impact, Sustainability Indicators, Targets and Performance

Environmental Impact & Responding to Climate Change

We procure products and services, consume energy and water, and generate waste to support HSA's vision, mission and roles. In supporting our operations, we acknowledge that our resource and energy consumption, along with our environmental emissions, contribute to climate change risks.

We continuously review and explore areas of improvement to conserve resources and energy through a "Replacement and Reuse" strategy in collaboration with internal and external partners, while continuing operations to perform our mission.

"HSA strives to reduce our environmental footprint across the facilities we manage, meeting Greengov.SG targets."

Greenhouse Gas (GHG) Emissions



Target: Peak emissions around 2025 and achieve net zero emissions around 2045.

Performance kt CO ₂ e (% of total)	FY2021	FY2022	FY2023	FY2024
Direct Carbon Emissions (Scope 1)	0.004 (0.001%)	0.003 (0.001%)	0.004 (0.001%)	0.003 (0.001%)
Indirect Carbon Emissions (Scope 2)	4.672 (99.999%)	4.356 (99.999%)	4.502 (99.999%)	4.285 (99.999%)
Total Scope 1 & 2 emissions	4.676	4.359	4.506	4.288

Notes:

1. Scope 1 emissions refer to direct emissions that occur from sources that are owned or controlled by HSA. This includes Town Gas and Diesel for standby generators and vehicles.
2. Scope 2 emissions refer to indirect emissions that result from the use of electricity for all premises.
3. HSA purchases electricity from power grids and the grid emission factors (GEF) are obtained from Singapore Energy Market Authority (EMA). FY2022 carbon emissions are calculated based on 2021 GEF of 0.409; FY2023 carbon emissions are calculated based on 2022 GEF of 0.417 and FY2024 carbon emission is calculated based on 2023 GEF of 0.412.

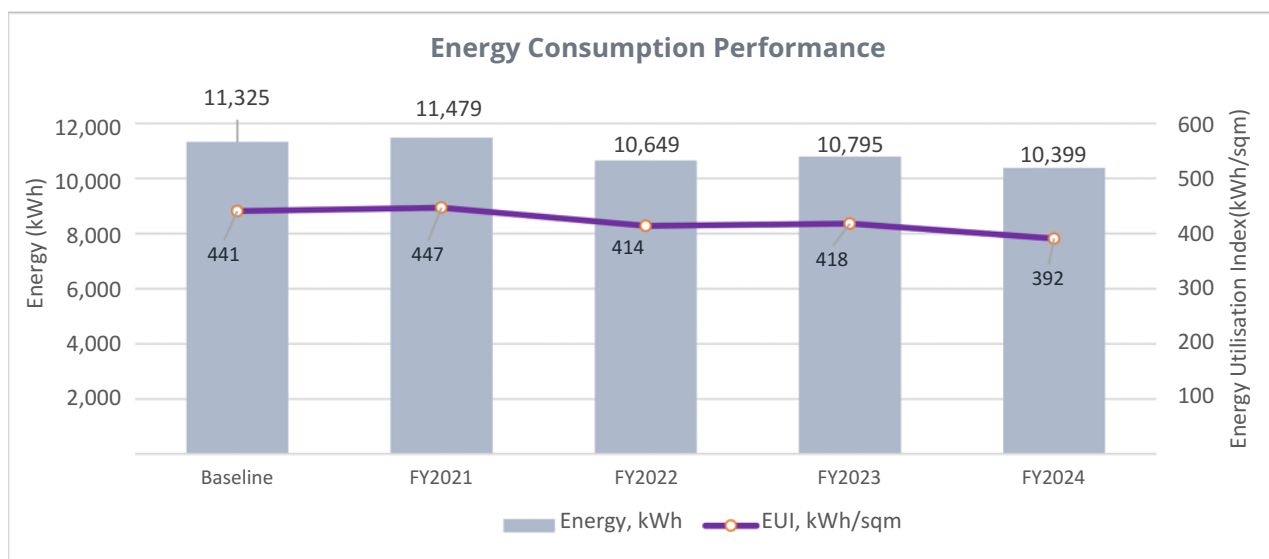
There was a reduction in total carbon emissions in FY2024 compared to previous years, with a notable decrease in Scope 2 emissions. This decline underscores the effectiveness of our recent initiatives focused on energy efficiency and sustainable operational practices. These efforts not only demonstrate our commitment to sustainability but also position us to achieve our target of peaking carbon emissions by FY2025.



Energy Utilisation Index (EUI)



Target: 10% reduction in Energy Utilisation Index (EUI) by 2030, compared against the baseline (average of 2018 – 2020 levels).



KPI	Baseline (Average of FY2018 to FY2020)	FY2021	FY2022	FY2023	FY2024
Electricity consumption (kWh)	11,325,180	11,479,288	10,649,429	10,795,405	10,399,831
Energy Utilisation Index (EUI) (kWh/sqm)	441	447	414	418	392

Note:

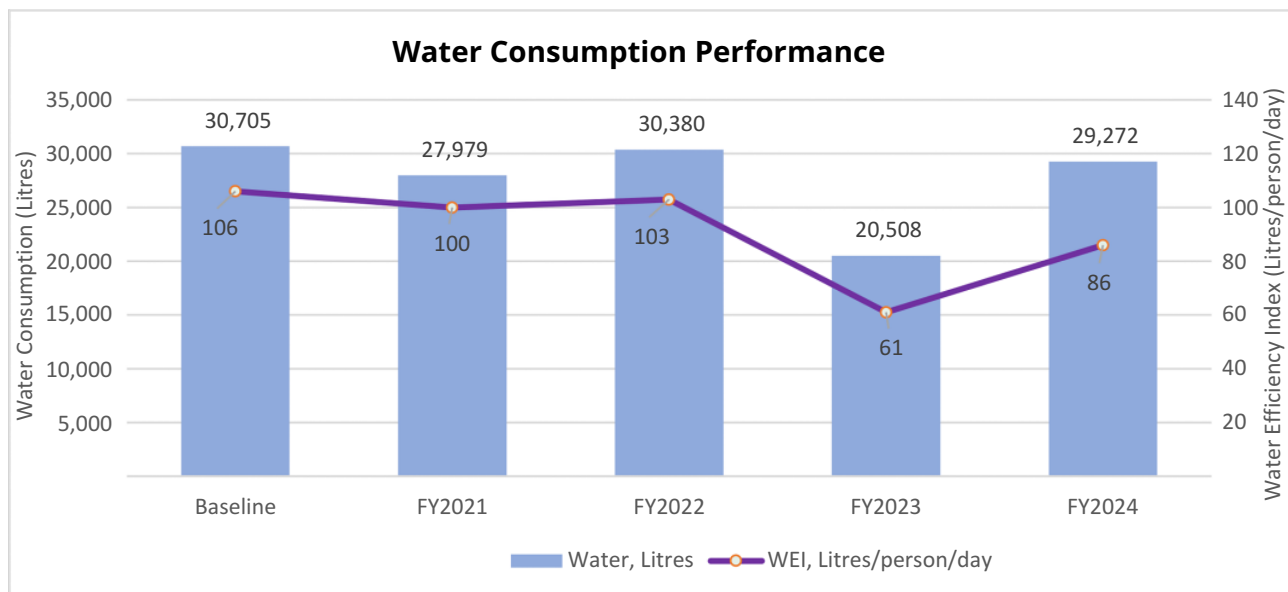
4. The formula used to calculate the EUI is as follows: Agency EUI in Year N = (Total amount of electricity consumed for all Agency premises in Year N) / (Total GFA for all Agency premises in Year N)

- In FY2024, HSA achieved a significant reduction in both total electricity consumption and the Energy Utilisation Index compared to the baseline.
- The total electricity consumption decreased by 8.17%, and the EUI improved by 11.11% from baseline.
- The closure of the cell therapy facility at HSA and the implementation of sustainability initiatives in the HSA building contributed to the reduction in energy consumption, although the overall Gross Floor Area (GFA) increased with the addition of a new Bloodbank facility at One Punggol, which has been operational since its soft launch in July 2023.

Water Efficiency Index (WEI)



Target: 10% reduction in Water Efficiency Index (WEI) by 2030, compared against the baseline (average of 2018 – 2020 levels).



KPI	Baseline (Average of FY2018 to FY2020)	FY2021	FY2022	FY2023	FY2024
Water consumption (Litres)	30,705	27,979	30,380	20,508	29,272
Water Efficiency Index (WEI) (Litres/person/day)	106	100	103	61	86

Notes:

5. The formula used to calculate WEI is as follows: Agency WEI in Year N = [Total amount of water consumed for all Agency premises in Year N × 1000] / [Average number of operational days in Year N for all Agency premises × (Average number of staff per day for all Agency premises + (0.25 × Average number of visitors per day for all Agency premises))]

6. WEI (FY2023) value was low due to a defective sensor resulting in inaccurate readings. The meter has since been replaced and the FY2024 outcome was measured using the new water meter.

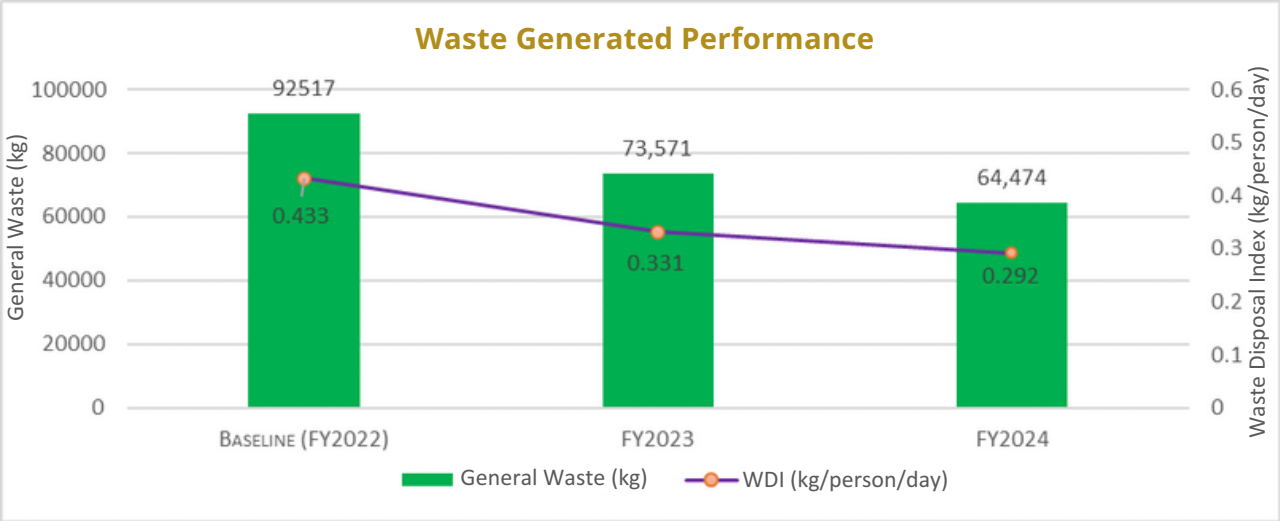
- In FY2024, HSA achieved a notable reduction in both total water consumption and WEI compared to the baseline.
- The total water consumption decreased by 4.67%, and the water efficiency index improved by 19.56% from the baseline. This was achieved despite the addition of a new Bloodbank facility at One Punggol, which has been operational since its soft launch in July 2023.
- These results indicate successful efforts in reducing water usage and enhancing water efficiency.



Waste Disposal Index (WDI)



Target: 30% reduction in Waste Disposal Index (WDI) by 2030, compared against the baseline (compared to 2022 levels).



KPI	Baseline (FY2022)	FY2023	FY2024
Waste disposed (kg)	92,517	73,571	64,474
Waste Disposal Index (WDI) (kg/person/day)	0.433	0.331	0.292

- Notes:
- 7. WDI is defined as the total waste disposed of per day divided by the total number of public officers' headcount, including visitors to the premises.
 - 8. The data presented pertains solely to the HSA Outram Building, for which we are the accountable owner.
 - 9. The waste generation data was obtained from the appointed Public Waste Collector by National Environmental Agency (NEA).
 - 10. The average number of operational days in HSA Outram Building is taken to be 275 days per year.

- In FY2024, HSA achieved significant improvements in waste management compared to the baseline. The total waste disposed of decreased by 30.31%, whilst the Waste Disposal Index (WDI) improved by 32.56%.
- These results indicate successful efforts in reducing waste generation and enhancing waste management practices.

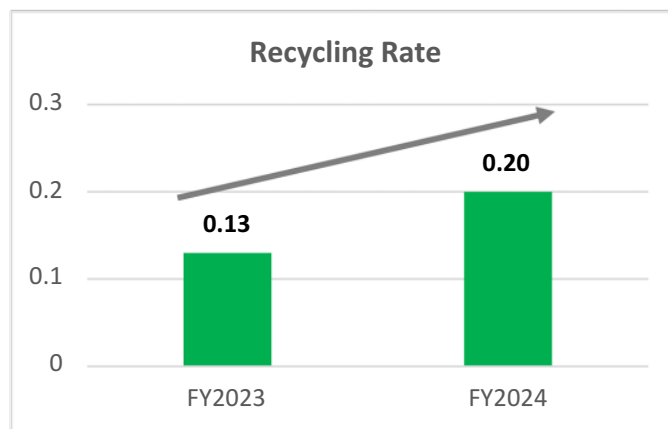
Recycling Rate

Whilst we focus on improving performance of our three key performance indicators, we actively monitor our recycling efforts throughout the organisation, understanding that effective waste management directly supports climate resilience and contributes to sustainable development objectives.

In FY2024, HSA's recycling rate improved significantly from 0.13 in FY2023 to 0.20, representing a 54% increase.

The improved recycling rate, combined with a reduction in general waste, shows that HSA's waste management practices are working effectively. These results demonstrate measurable progress in reducing landfill waste while improving resource recovery.

These improvements support Singapore's circular economy goals and show HSA's practical commitment to responsible resource management. By focusing on both waste reduction and better recycling, we are contributing to national sustainability targets through concrete operational changes.



Notes:

10. Recycling Rate of Year N = Total waste recycled divided by the total waste disposed of in Year N.

11. The data presented pertains solely to the HSA Outram Building, for which we are the accountable owner.

12. The weight of recycled materials was provided by the appointed waste collectors.

Sustainability in Action



We implemented several approaches to encourage Reduce, Reuse, Recycle (3R) practices in HSA.

- ***We established clear procedures for segregating and disposing of recyclable waste, non-recyclable waste, and laboratory waste to ensure safe handling and regulatory compliance.***
- ***We collaborated closely with our housekeeping team to implement comprehensive waste segregation practices. We shared established procedures with the team to ensure effective management of different waste streams across the organisation.***
- ***To support staff in proper waste segregation, we installed recycling bins in pantry areas, making it easier for employees to separate general waste before disposal.***



Bins at pantry area are labelled to encourage waste segregation practices.





HSA continues to implement initiatives on the premises through 'Reduce and Replace' strategies to meet the target in FY24, including:

- *Replacing fluorescent lights with LED lights across our premises;*
- *Replacing ageing air conditioning units with Mandatory Energy Labelling Scheme (MELS) rating of at least 3-ticks;*
- *Implementing 25°C setpoint for all office areas; and*
- *Shortening the run-time of Air Handling Units (AHUs) serving office areas by 1.5 hours.*



Climate change has resulted in rising temperatures during the day. Lowering temperature setpoints are required to maintain the ambient temperature in the laboratory for keeping laboratory equipment at optimum performance. **Pharmaceutical Laboratory** has implemented temperature mitigation measures through the installation of solar films on windows, improving the temperature setpoint by 2°C.





Recycling Corner in HSA Building



HPRG's Audit & Licencing Department

We studied the feasibility of issuing verifiable electronic licences and certificates using WOG TrustDocs platform to replace hard copy licences and certificates. This would enable online verification of the authenticity of electronic documents and bring about cost reduction and increased efficiency for HSA and the pharmaceutical industry.

Digitalisation of Finance & Procurement processes

- Digitalised the Site Show Attendance Form (A) and Non-Disclosure Undertaking Form (B). This enables tenderers to digitally sign and submit Form (A) prior to attending the site show and Form (B) prior to receiving encrypted renovation drawings and annexes. These changes eliminated paper consumption, printing, and physical storage requirements.
- Implemented the eGIRO platform to enable companies to submit interbank GIRO application requests online, reducing reliance on hardcopy submissions for customers with participating banks.
- Adopted eGuarantee@Gov platform to enable digital submission of banker's guarantees, replacing paper-based guarantees, eliminate paper printouts, physical storage requirements, and disposal needs.


Weight of paper reduced: 61.2kg per year



Summary

In conclusion, the performance metrics (EUI, WEI, and WDI) for FY2024 demonstrate HSA's commitment to sustainability and operational efficiency. We have made significant progress in reducing energy and water consumption, as well as minimising waste generation. Moving forward, HSA will continue to monitor these performance indicators closely to ensure we meet the GreenGov targets, reinforcing our dedication to environmental stewardship and sustainable practices.





Sustainability Initiatives

Fostering Sustainability in HSA

Incorporate Sustainability into Processes

94 projects contributed by 253 HSA officers!



Transformation in HSA

HSA has embarked on a transformative journey, leveraging technology and innovation to enhance its operational efficiency and service delivery. The transformation projects cover a wide range of activities, including automating and digitalising work processes, developing new methods for lab testing, and streamlining procedures. These efforts also advance sustainability by reducing reliance on printing, expanding digital solutions, and embedding resource-efficient practices into operations.



Energy Conservation in Data Centre

In FY2024, we advanced our applications migration to cloud-based hosting to minimise our physical infrastructure and lower carbon emissions.

Concurrently, we conducted testing to optimise our data centre temperature setpoint. We have successfully achieved a 1°C increase from 23°C to 24°C, leading to further reductions in energy consumption.



Incorporating Circular Economy into Asset Management

As part of our commitment to advancing the circular economy, we encourage the transfer of redundant assets in good condition to other departments to optimise their value. Condemned assets should be traded in when purchasing replacements or included in HSA's centralised sales tender, thereby allowing the asset lifecycle to be extended through vendor refurbishment and redeployment. By prioritising these practices over disposal, we reduce waste generation, minimise environmental impact, and contribute to a more sustainable resource management.

Our Journey to Nurturing a Sustainable Culture & Community

HSA remains steadfast in its commitment to promoting environmental sustainability through our philosophy of Caring Action, Responsible for our Environment (C.A.R.E.). This foundation continues to shape our organisational culture, driving meaningful behavioural and attitudinal changes amongst staff to create lasting positive impacts on society and the environment.

Throughout 2024, we strengthened our sustainability initiatives through enhanced energy efficiency measures, waste reduction programmes, and community engagement activities. These efforts align with both our environmental stewardship goals and Singapore's broader national sustainability agenda.

Environmental

HSA launched several engaging initiatives to cultivate environmental consciousness and embed sustainable practices into our workplace culture. These programmes transform everyday routines into meaningful sustainability actions, encouraging staff participation while demonstrating how collective small steps can create significant environmental impact. Our team has embraced sustainability not just as a corporate responsibility, but as a shared commitment to conserve energy while maintaining operational safety and service quality.



- **"Dimming Lights, Brighter Future: Lights out Every Friday!"** - The "Lights Out" programme was extended beyond Earth Hour to become a weekly practice every Friday during lunch hours, where non-essential lighting in offices, corridors, and common areas is switched off.
- **We turn off the Air Handling Unit (AHU) serving office areas during staff work-from-home days.**

In conjunction with i Light Singapore 2025, Bloodbank at One Punggol participated in the "Switch Off, Turn Up" campaign by implementing a lunch-hour lights-off policy in staff areas, utilising natural light from large windows while maintaining flexibility during poor lighting conditions. Throughout the initiative, we ensured full lighting was maintained in operational areas for the safety of our staff and blood donors.

Caring for Our People

Recognising that true sustainability extends beyond environmental considerations, we prioritised the well-being of our most valuable asset—our people. Our social sustainability efforts focus on nurturing a supportive workplace culture that values work-life balance, mental health, and community connection, creating an environment where employees can thrive both professionally and personally.



- HSA implemented "Eat with Your Family Day" quarterly, allowing employees to finish work thirty minutes earlier to prioritise family time and home dining. This initiative improved work-life balance and enhanced employee satisfaction. The programme demonstrates our commitment to holistic sustainability that encompasses social well-being, fostering stronger family connections within our workforce.



- HSA launched Well-being@Gov services in May 2024 for all staff with a series of activities including launch webinars, roadshows and sharing of onboarding kits and e-circulars. Throughout the year, we also shared regular communication pieces and held wellness webinars and activities to offer well-being tips to all staff. The number of HSA Well-being Ambassadors (WAs) has also doubled from 14 in April 2024 to 30 in December 2024. All WAs are trained in Mental Health First Aid to provide peer support to staff.

Community Engagement

Our commitment to community involvement saw remarkable growth in 2024.

In November, our Donation Drive for ItsRainingRaincoats (IRR), a charity supporting migrant workers, collected 215kg of donated items. This initiative promoted circular economy principles while supporting vulnerable communities.



34 staff members and their families participated in the SG Clean Day at Bishan-Ang Mo Kio Park, contributing to Singapore's cleanliness and environmental preservation efforts.

Education and Awareness

We enhanced our sustainability education programmes through comprehensive staff engagement initiatives:



- We organised Sustainability talks covering climate change, net-zero emissions, circular economy, and AI applications in environmental management.
- We supported inter-agency campaigns such as LTA-Green, which promotes sustainable urban development and innovative low-carbon construction materials.
- We participated in the national "Say Yes to Waste Less 2024 Campaign!" to promote waste reduction awareness.
- We also produce and broadcast regular Infrastructure & Sustainability Communications bulletins to keep staff updated on environmental best practices, policy reminders and educational resources.

Awards & Recognition

HSA's dedication to sustainability was formally recognised when we received the Company of Good award from the National Volunteer & Philanthropy Centre (NVPC) in recognition of our exemplary contributions across five key areas: society impact, people development, corporate governance, environmental stewardship, and economic responsibility.



Looking Forward

As we advance our sustainability journey, HSA remains committed to expanding our environmental initiatives and strengthening our culture of social responsibility. We will continue to develop innovative approaches that reinforce our dedication to environmental stewardship and sustainable practices throughout all aspects of our operations.

For any questions or feedback on this report, please email hsa_info@hsa.gov.sg