

# Environmental Sustainability Report

2023/2024



National Gallery  
Singapore



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# Message from Gallery CEO

National Gallery Singapore is a leading visual arts institution that oversees the world's largest public collection of Singapore and Southeast Asian modern art. Our commitment to our audiences and communities extends beyond our exhibitions and collections. We also take pride in leading the way in environmental sustainability for museums.

We are proud to be recognised as the 4<sup>th</sup> Most Sustainable Museum and 8<sup>th</sup> Most Sustainable Cultural Organisation globally in the *How Sustainable Are Cultural Organizations? A Global Benchmark* study published by the University of Lausanne in February 2024. This accolade reflects our unwavering dedication to work towards integrating sustainability into all facets of our operations.

The Gallery has taken a proactive approach in sustainability disclosure, starting before such disclosure is mandated. This underscores our belief in a positive culture of shared responsibility, not only within our organisation but also in our engagement and partnerships with the broader community.

We continue to move forward in our journey towards environmental stewardship. We are proud to collaborate with the Heritage Conservation Centre, National Heritage Board and A\*STAR to pioneer research on sustainable

management of collection environments in tropical climates. This pilot research aims to produce a tool for decision making to optimise the balance between energy consumption and providing current and future access to the National Collection as well as to achieve greater operational sustainability in museums located in tropical climates.

Art and sustainability are at the heart of our mission, and we believe that through our leadership and collaborative efforts, we can make a profound impact on both cultural and environmental landscapes. We invite our staff, supporters, artists and the public to join us in this important mission, as we continue to set new standards in environmental sustainability and inspire positive change.

Together, let us embrace this opportunity to shape a more sustainable future while celebrating and preserving the rich tapestry of Singapore and Southeast Asian art.



Eugene Tan  
Chief Executive Officer



# Governance Structure on Environmental Sustainability

The Gallery's Sustainability Committee is made up of staff members from all the different departments who work together to achieve effective integration of our sustainability policies. Helming this committee is the Head of Sustainability, who reports to the Director of Facilities Management & Operations.

Recommendations from the committee are discussed and brought to the Gallery's Management Committee for their input and approval. Matters that involve strategic decision-making are also brought before the Gallery's Board for their guidance and approval.

# Building a Sustainable Future: Our Objectives and Foundation

The Gallery has conducted comprehensive energy and carbon assessments and has been recertified under Green Mark 2021 In Operation at the Gold Plus level. Our internal review has identified several building improvement opportunities aimed at reducing our Energy Use Intensity (EUI) by 30%.

In line with the recommendations by GreenGov.SG, the Gallery seeks to:

- minimally achieve a 10% reduction in Energy Use Intensity (EUI) by 2030 from the average of 2018–2020 levels. The Gallery's aspirational target is to reduce EUI by 30% to achieve Green Mark 2021 Super Low Energy (SLE) level.
- achieve a 10% reduction in our Water Efficiency Index (WEI) by 2030 from the average of 2018-2020 levels.
- achieve a 30% reduction in our Waste Disposal Index (WDI) by 2030 from our 2022 baseline.
- peak our carbon emissions, Scopes 1 and 2, by 2025.
- achieve net zero by 2045, in alignment with the Singapore government's target.

# Green Metrics

Energy Consumption ..... (kWh)	Water Consumption .....			Waste Disposed* ..... (kg)	Greenhouse Gas Emissions (GHG) ..... (kgCO <sub>2</sub> e)**
	Potable Water (m <sup>3</sup> )	NEWater (m <sup>3</sup> )	Total (m <sup>3</sup> )		
<b>FY2018</b>					
9,688,826	3,727	58,814	62,540	346,812	N.A.
<b>FY2019</b>					
9,740,945	5,013	28,783	33,795	305,114	3,972,410
<b>FY2020</b>					
8,830,133	12,288	46,084	58,372	212,610	3,665,200
<b>FY2021</b>					
8,818,113	4,330	49,327	53,657	197,535	3,928,380
<b>FY2022</b>					
10,430,124	2,936	48,392	51,328	199,629	4,773,464
<b>FY2023</b>					
9,809,000	5,565	49,137	54,702	216,517	11,956,925

\* Waste disposed excludes recyclables and includes waste disposed by the Gallery's tenants.

\*\* GHG emissions for FY2019–FY2021 were calculated by the Gallery's sustainability consultant, GreenA Consultants. For FY2022 and FY2023, GHG emissions were calculated using the UN Global Compact Network Singapore's CERT for Scopes 1 and 2.





# Recognitions and Achievements for 2023/2024

- 1 National Gallery Singapore is ranked 4<sup>th</sup> Most Sustainable Museum and 8<sup>th</sup> Most Sustainable Cultural Organisation globally in a study by the University of Lausanne
- 2 BCA Green Mark (GM: 2021 In Operation) Gold Plus
- 3 Water Efficient Building (Basic) Certification
- 4 Eco Office Champion Certification
- 5 The Gallery is a signatory of the SDG Publishers Compact
- 6 LowCarbonSG: Empowering Reduction in Carbon Emissions



# Our Green Initiatives

The Gallery is committed to sustainable environmental practices. Our efforts towards sustainability align with the objectives of the United Nations Sustainable Development Goals (UN SDGs), underscoring our commitment to a greener, more sustainable world.

# Reduction in Energy Consumption



- A Mechanical and Electrical consultant was engaged and conducted feasibility studies, and prepared preliminary design strategies and cost estimates with the aim of further reducing energy consumption.
- Unifers (previously known as Envision Digital) is currently working on the Gallery’s chiller optimisation.
- Piloted study to measure CO2 emissions for selected exhibitions: *Nothing is Forever: Rethinking Sculpture in Singapore*, *Living Pictures: Photography In Southeast Asia* and *Familiar Others: Emiria Sunassa, Eduardo Masferré and Yeh Chi Wei, 1940s–1970s*.
- Collaborated with SMU Academy and participants of the Academy’s 5<sup>th</sup> and 6<sup>th</sup> cohorts of the (*SkillsFuture Career Transition Programme*) *Advanced Certificate in Driving Sustainability for the Future: The Future of Work through a Sustainable Lens* programme to build carbon calculators and measure CO2 emissions for the exhibition *Tropical: Stories from Southeast Asia and Latin America* and the Light to Night Festival 2024, and to study measures for sustainable procurement.
- Collaborating with the Heritage Conservation Centre, National Heritage Board and A\*STAR to conduct research on sustainable management of collection environments in tropical climates with the aim to attain a higher level of operational sustainability by establishing optimal collection environments zonings to balance energy consumption and providing current and future access to the National Collection.
- Maintaining a temperature of 25°C (+/-1°C) for common internal areas at the Gallery.

# Reduction in Water Consumption



- Maintaining water faucets and dispensers with water-saving and energy-saving features respectively in our toilet facilities.

## Reduction in Waste Generated



- A waste audit was conducted over 2023–2024 to identify potential areas of improvement in waste handling and management practices.
- A food digester has been installed in the Gallery’s bin centre to pilot partial on-site food waste treatment.
- Automatic paper towel dispensers are being tested at two toilet facilities.
- The Gallery’s electrical equipment such as lighting, display screens and projectors are reused for several exhibitions, after which the Gallery reuses the equipment in non-public areas whenever possible. For the first time since the Gallery’s opening, Audio Visual and Lighting e-waste was disposed through a R2-certified vendor in 2023.
- Maintaining the separation of the Gallery’s general waste and recyclables from that generated by the Gallery’s tenants.
- Continue with elimination of single-use plasticware from all internal events.
- E-business cards are issued to staff in lieu of printed ones.

## Reduction in Overall GHG Emissions



- Tracking and reporting the Gallery’s GHG emissions using UN Global Compact Network Singapore’s Carbon & Emissions Recording Tool (CERT), measuring the Gallery’s Scopes 1 and 2 emissions, and part of Scope 3 emissions.
- The Gallery has four EV charging stations at the Level B3 carpark to encourage the switch to electric vehicles.

# Incorporating Sustainability into Core Business Areas and Procurement Practices



- Where possible, the Gallery's Artwork and Exhibition Management team continues to reuse and repurpose display infrastructure for our exhibitions. We also use smaller vehicles to transport smaller loads and consolidate shipments in order to decrease the number of times larger vehicles are used.
- After every Gallery exhibition, there will be outreach efforts to Museum Roundtable members and schools for adopters of showcases and other fabricated furniture that cannot be kept and/or reused by the Gallery.
- Repurposed leftover sand from *Tropical: Stories from Southeast Asia and Latin America* exhibition by gifting it to a preschool and colour dyeing the sand for a sand art workshop in the Gallery.
- For the Gallery Wellness Festival, all fabrications were designed for reuse after the festival. Most were either repurposed by other Gallery teams or adopted by schools.
- For the revamp of our permanent collections in DBS Singapore Gallery 1, 2 and 3, the Gallery has integrated reusable design element. Gallery 1, reopened in December 2024, along with the other permanent galleries scheduled to reopen in July 2025, features reusable label holders designed for paper inserts. This approach reduces waste and supports the recycling of paper materials.
- Staff are recommended to adopt guidelines for incorporating sustainability into the Gallery's procurement practices.
- GreenGov.SG-related clauses are incorporated in the Gallery's tenancy leases.
- Continued tracking of carbon emissions for each publication with data from printers.
- Reduced the use of paper by optimising print runs and publishing more digital books. Achieved a 33% decrease in print runs in FY2023 as compared to FY2022.
- Used FSC-certified paper and engaged FSC or PEFC-certified printers for all physical publications.
- Use of Green Label products.

# Building a Culture of Sustainability



- The Gallery was a supporter of EEHB 2024 The 5<sup>th</sup> International Conference on Energy Efficiency in Historic Buildings. The keynote speaker, Mark Chee, from the Gallery presented on the topic of “Adaptive Reuse of Former City Hall and Supreme Court – Design, Implementation, Evaluation and Sustainability at National Gallery Singapore.” This conference sought to bring together all sectors including the construction industry to achieve the goal of reducing energy consumption and address the challenge of climate change.
- Supported the Public Hygiene Council in the *Bulky Waste to Wonder* competition in Oct 2023. The competition was designed to provide opportunities for youths to address the issue of littering at source. It aimed to inspire them to rethink the use of bulky waste and showcase their ideas by redesigning and/or repurposing used bulky furniture into functional items instead of discarding them.
- Through programmes, installation and artwork themes relating to climate change, the Gallery communicates the urgency of climate change:
  - During the Gallery Children’s Biennale May 2023–Mar 2024, the interactive artwork *Can You See The Forest For The Trees?* by Izziyana Suhaimi encouraged participants to turn ‘waste’ to meaningful works of art, and *Tide* by Wang Ruobing drew attention to the dangers of pollution and the harm it causes to the environment.
  - During Light to Night 2024, Singaporean artist Kumari Nahappan debuted an inflatable artwork, *Wings of Change*, magnifying her iconic saga seed into a six-metre installation illuminating the festival at sunset. Addressing the vanishing saga trees, the piece urges action for sustainability and preservation, inviting festival-goers to engage in climate activism. Encouraging participation, Kumari invites audiences to circulate clockwise around the seed, promoting living in the moment and fostering positive change.
  - In 2024, the Gallery presented the first of a three-part online course, *Art and the Environment in Southeast Asia*. Developed by a team of curators and educators, the courses explore how artists in the region have engaged with multifaceted conceptions of the environment from the 19<sup>th</sup> century to the present.



- Digital sustainability newsletters and communications are sent to Gallery staff to spread awareness of sustainability best practices. These newsletters are also shared with the Gallery's board members, Singapore Art Museum (SAM) and Singapore Tyler Print Institute (STPI).
- The Gallery's Sustainability Committee organises workshops and talks for our colleagues from the Gallery, SAM and STPI.
- The Gallery encourages staff to go car-free on the first Friday of each month.

# Beyond Going Green

## Social Sustainability



- The Gallery's Diversity & Inclusion Committee continues to work to reflect the diversity of communities of which the Gallery staff are a part, and to identify and remove biases and inequalities at the personal and structural levels by encouraging a culture of open dialogue and learning.
- The Gallery's welfare committee, TETRIS, continues to promote physical, mental and social well-being of staff by organising recreational activities for staff to recharge and unwind.
- The Gallery aims to create a safe and inclusive workplace culture by reviewing and enforcing anti-discrimination policies and offering channels for employees to report concerns or grievances.
- The Gallery's HR department regularly reviews policies, practices and procedures to align with diversity and inclusion best practices.
- Staff continue to be provided with comprehensive insurance coverage, annual basic health screening and mental health support through external counselling service providers.
- The Gallery continues to offer hybrid work arrangements, remote work options and paid time-off policies that prioritise staff's ability to maintain a healthy work-life balance.
- The Gallery invests in staff development through training programmes and opportunities for staff to be empowered to take ownership of their own personal and professional development.
- Values-driven training such as building workplace inclusivity and managing unconscious bias continue to be part of the core development programme for all staff.
- Art challenges conventions and equips us with new perspectives that help us adapt to an increasingly complex world. The Gallery continues to welcome visitors of all ages, abilities and backgrounds to discover the value of art at the Gallery. The Gallery's practice of inclusive design and access support for visitors with disabilities through the Gallery's access initiatives was also shared with the tourism and hospitality sector partners at the 2024 Sustainable Tourism Conversations through a Panel Discussion on Accessible and Inclusive Tourism.

- Visitors with access needs are provided with the necessary information to be empowered in how they can plan for their visit to the Gallery. The Gallery provides basic access accommodations such as being service dog friendly and having a comprehensive Access Guide, as well as having a dedicated Calm Room.
- The Gallery continues to be committed to diversity and inclusion in our exhibitions, programming and publications.
- The Gallery raises awareness of and promotes wellness through programming, such as our *Slow Art* and *Strength through Art* (stART) programmes, and the Gallery Wellness Festival.
- To support persons with dementia and their caregivers, the Gallery developed the *Art with You* programme involving art appreciation and art-making. The Gallery was also certified as a Dementia Go-To Point since December 2022 to instil confidence in families with dementia when visiting the Gallery.
- Our publications are made available on Open Access platforms to provide discoverability and equal opportunities to local communities to utilise them.
- The Gallery continues to innovate through a cross-functional design and experience-driven futures team at the museum, working with strategic and technological partners to build social capital with our digital ecosystem.
- Visitor satisfaction surveys are conducted annually.

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- The Gallery’s fund managers are ESG-compliant. The active fund managers appointed by the Gallery have incorporated ESG considerations in their investment process in their stock selection.

# Financial Sustainability



