



PRESIDENT'S AWARD SPOTLIGHTS ENVIRONMENTAL STEWARDS FOR SUSTAINABILITY EFFORTS

Singapore, 10 October 2023 – The President's Award for the Environment (PAE) 2023 was presented by President Tharman Shanmugaratnam to Er. Lee Chuan Seng, Mr Tan Guan Rui Jacob, National University of Singapore and Keppel Corporation at the Istana on 10 October 2023.

2 The PAE is Singapore's highest environmental accolade for individuals, educational institutions and organisations that have made significant contributions towards environmental sustainability in Singapore. It recognises sustained contributions by environmental champions across the People, Private and Public sectors, and aims to inspire more people to take action to address our environmental challenges. More information on PAE 2023 and the composition of the Judging Panel is available in **Annex A**.

3 A total of 61 nominations were received this year. These nominations were submitted by parties with direct knowledge of the nominees' achievements and were made with the full consent of the nominees. The breakdown of nominations is as follows:

- Individual: 18 nominations
- Educational Institution: 17 nominations
- Organisation: 26 nominations

4 Amongst the four PAE recipients this year, two are from the Individual category, and one each from the Educational Institution and Organisation categories. These four environmental champions are inspiring examples of how everyone can contribute to sustainable development, and promote good environmental practices within and beyond their organisations and communities. More information on the four winners can be found in **Annex B** and at www.pae.gov.sg. Past recipients of the Award are listed in **Annex C**.

5 In the spirit of sustainability, the awards ceremony dinner featured a 'farm to table' menu curated from locally sourced produce from four farms in Singapore. Details about the local produce featured at the awards ceremony dinner can be found in **Annex D**.

6 President Tharman Shanmugaratnam, at his first PAE, said, "The environmental challenges we face are interconnected: across regions, across generations, and across virtually every field of life. They can be tackled with innovation, bold initiatives and collective will, which today's award winners exemplify."

PAE 2023 Recipients



7 Er. Lee Chuan Seng, award recipient in the Individual category, said, “When I chaired the Green Mark committee, our aim was not just to have iconic buildings with very high sustainability scores. We set an ambitious target to green 80% of all our buildings’ gross floor area by 2030, to move the needle in reducing our carbon emissions. At NEA, we are exploring innovative solutions to safely use the mixed materials more sustainably with better value-added, such as in land reclamation, to extend the lifespan of Semakau Landfill beyond 2035. We need to continue to be open to new ideas, encourage ingenuity and vision, persevere in implementation, and foster the collaboration necessary to ensure greater sustainability.”

8 Mr Tan Guan Rui Jacob, the other award recipient from the Individual category, said, “As an educator, I envision our schools to be microcosms of Singapore, with national goals like SG Green Plan, 30 by 30 vision, City in Nature vision, and OneMillionTrees movement – all happening within a school context so that our students can see some resemblance of our national goals within their campuses. We need to be intentional in raising up the next generation to be environmentally conscious because they will soon step out and contribute to society. The values and beliefs caught in their growing years will affect their choices in the future. We can mould the future of our nation through the things we say and do in our classrooms, and beyond.”

9 Professor Tan Eng Chye, President of the National University of Singapore (NUS), which is an award recipient from the Educational Institution category, said, “NUS is honoured to be recognised with the President’s Award for the Environment, which affirms our whole-of-University approach in championing sustainability. As Singapore’s flagship university, we are committed to advancing sustainable development in the areas of education, research, innovation, and campus operations. The University is a vibrant living laboratory where we drive sustainable solutions, and translate research and knowledge into tangible outcomes, shaping the future of sustainability in Singapore.”

10 Mr Danny Teoh, Chairman of Keppel Corporation, who received the award on behalf of Keppel Corporation, winner in the Organisation category, said, “Keppel is deeply honoured to receive the President’s Award for the Environment. It is a strong affirmation of our efforts to both run our business sustainably and make sustainability our business through investing in and creating solutions that contribute to a sustainable future. As a global asset manager and operator, with deep capabilities in infrastructure, real estate and connectivity, Keppel will continue pushing the envelope to address some of the most pressing climate and environmental challenges of our time through our quality investment products and sustainability solutions. We aim to contribute towards the achievement of Singapore’s net zero ambition, and the advancement of the United Nations Sustainable Development Goals.”



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For media queries, please contact:

Marcus Ong

Strategic Communications & Media Operations
Ministry of Sustainability and the Environment
Email: marcus_ong@mse.gov.sg

Low Youjin

Strategic Communications & Media Operations
Ministry of Sustainability and the Environment
Email: low_youjin@mse.gov.sg

About the Ministry of Sustainability and the Environment

The Ministry of Sustainability and the Environment (MSE) is committed to providing Singaporeans with a clean and sustainable environment, and resilient supplies of safe food and water.

MSE works alongside its three statutory boards – the National Environment Agency (NEA), PUB, Singapore’s National Water Agency, and the Singapore Food Agency (SFA) – to achieve this mission through innovation, technology, and vibrant partnerships with the private, public, and people (3P) sectors.

For more information, please visit <http://www.mse.gov.sg>



Annex A

President's Award for the Environment (PAE) 2023

The President's Award for the Environment (PAE) is a biennial award administered by the Ministry of Sustainability and the Environment. Nominations for PAE 2023 were open from 1 February to 31 March 2023. The award recipients were presented with a trophy and a certificate by President Tharman Shanmugaratnam at the PAE awards ceremony held at the Istana on 10 October 2023.

Composition of the PAE 2023 Judging Panel

Role	Name	Designation
Chairperson	Dr Amy Khor	Senior Minister of State Ministry of Sustainability and the Environment
Members	Mr Ong Tze-Ch'in	Deputy Secretary (Resilience) Ministry of Sustainability and the Environment
	Ms Isabella Loh	Chairman Singapore Environment Council
	Ms Beatrice Chong	Divisional Director Curriculum Planning & Development 2 Ministry of Education
	Ar. Tang Kok Thye	Immediate Past President Singapore Green Building Council
	Mr David Chua	Chief Executive National Youth Council
	Mr Joseph Koh	Chairman "Friends of Bukit Timah Forest" community group PAE 2021 recipient



Annex B

Er. Lee Chuan Seng – President’s Award for the Environment 2023 (Individual)

Er. Lee Chuan Seng has made outstanding contributions in advancing green building standards in Singapore, and is widely acclaimed as a thought leader in the built environment industry and beyond. He was the Founding President of the Singapore Green Building Council (SGBC) in 2009 and has been serving as Honorary Advisor on its Board since 2011. Under Er. Lee’s leadership, SGBC became a full member of the World Green Building Council (WGBC) within a year of its founding and he was elected to WGBC’s Board of Directors in the same year from 2010 to 2013. Er. Lee was instrumental in the development of SGBC’s Singapore Green Building Products certification scheme, which is recognised by national and regional green building rating tools.

As a Professional Engineer, Er. Lee has championed sustainability through various national and industry committees. He was on the Board of the Building and Construction Authority (BCA) from 2003 to 2013 and served as Deputy Chairman from 2011 to 2013. Particularly, Er. Lee chaired the BCA Green Mark Advisory Committee from 2005 to 2019 and oversaw the development of various editions of the Green Building Masterplans from 2006 to 2021. He was also Board Member of the Professional Engineers Board, Vice President of the Institution of Engineers Singapore Council, Honorary Advisor to the Real Estate Developers’ Association of Singapore, and Deputy Chairman of the Singapore Standards Council. He was awarded the Public Service Medal in 2010 for his contributions as a Professional Engineer, and the Public Service Star in 2018 for his contributions to environmental sustainability. He was also recognised with the inaugural BCA-SGBC Green Visionary Award in 2015 for his contributions towards green buildings and sustainability.

Beyond the built environment industry, Er. Lee is also Chairman of NEA, Scientific Advisor to MND, and Chairman of the Urban Solutions and Sustainability Technical Advisory Workgroup. He leads reviews on research and developments in resource storage and deployment.

Across his various appointments, Er. Lee has demonstrated unwavering commitment to promote environmental sustainability as a key consideration at both the industry and national levels. Through the establishment of the SGBC and its sustainability frameworks, he has elevated Singapore’s reputation in green building expertise domestically and internationally. Er. Lee’s contributions go beyond the built environment industry, as he continues to advocate for engineering solutions to improve waste and resource management in national research efforts on technological solutions to address our resource constraints.



Mr Tan Guan Rui Jacob – President’s Award for the Environment 2023 (Individual)

Mr Tan Guan Rui Jacob is an exemplary role model in championing environmental sustainability at Commonwealth Secondary School (CWSS) and across the wider community.

Mr Tan is a Senior Biology Teacher who oversees CWSS’ Environmental Education programme and the school’s Eco Club. Since joining CWSS in 2010, Mr Tan has played a pivotal role in transforming CWSS into a biophilic ‘School in Nature’ that now has six eco-habitats. In 2020, he helped to set up a plant nursery in CWSS to propagate endangered native forest species, with a plan to plant 1000 more trees and shrubs by 2030. As Teacher-in-Charge of the Eco Club, Mr Tan has hosted 130 groups from local and international schools, government agencies and private organisations since 2014, sharing about CWSS’ journey in environmental education to inspire other teachers and students to embark on sustainability efforts.

He also spearheaded a school-wide plastic disposables reduction campaign with a team of teachers in 2017, and co-designed a new, multidisciplinary Science, Technology, Engineering and Mathematics (STEM) Elective for CWSS students that focuses on four areas of sustainability – nature conservation, food security, water resources, and clean energy. In recent years when CWSS was appointed as one of the pilot schools for the MOE Eco-Stewardship Programme under the Singapore Green Plan 2030, Mr Tan went further to lead a team of teachers and students in the mapping out the school’s existing environmental-related initiatives and programmes to form the CWSS Green Plan, making sustainability a key theme on the Campus and connecting with the Community beyond the school.

Mr Tan’s passion for environmental advocacy extends beyond CWSS to the wider community. He is involved in the W7 Environmental Education Cluster Learning Team where he mentors students from different schools to lend their efforts towards influencing their peers in schools to take positive strides towards environmental sustainability. These students documented the biodiversity in their schools and made recommendations for schools in Singapore to turn into a ‘School in Nature’, where staff and students co-exist peacefully with nature and the wildlife that can be encountered as part of a school experience.

He is involved in the Education Workgroup of The Ubin Project to inspire other teachers to use Pulau Ubin as a ‘living classroom’ to craft learning experiences for their students to experience cultural, historical, geographical, natural, and sustainable aspects of Ubin. This holistic and interdisciplinary experience seeks to connect the younger generation with nature, the community and cultivate a sense of national pride. He has also been a council member of the Singapore Association for the Advancement of Science (SAAS) since 2018. He works closely with the Science Centre Singapore and other organisations to promote the understanding



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of Science, Technology, Engineering and Mathematics (STEM) among youth and the general public.

For his contributions towards environmental sustainability, Mr Tan received the NEA EcoFriend Award in 2019, and the NParks Community in Nature Schools Award (Teacher of the Year) in 2020. His dedication to environmental education is evident from his sustained commitment towards engaging the wider education sector over the years, making him an inspiring role model for other teachers, students and the wider public.



National University of Singapore – President’s Award for the Environment 2023 (Educational Institution)

Since embarking on its environmental sustainability journey more than two decades ago, the National University of Singapore has remained committed to advancing sustainable development and contributing to the global fight against climate change.

NUS formed its then Campus Sustainability Committee in the 2000s, which evolved into the University Sustainability and Climate Action Council in 2021. Chaired by NUS President Tan Eng Chye, the Council integrates and advances the sustainability activities across key university functions of education, research, innovation and enterprise, campus operations and administration as well as community engagement.

In 2022, NUS charted out its long-term strategic goals through a Campus Sustainability Roadmap 2030 which focuses on the University progressing towards a Carbon Neutral, Climate Resilient and Zero Waste campus.

In the same year, NUS also appointed Professor Low Teck Seng as Senior Vice President (Sustainability & Resilience) to lead the University’s strategies and policies in sustainability and resilience.

Sustainability is at the core of NUS’ campus design. NUS’ University Town was unveiled in 2013 as Singapore’s first Green Mark Gold Plus district. The University also conceptualised and developed SDE4 as the first purpose-built Net Zero Energy building in Southeast Asia.

In its journey towards a Carbon Neutral Campus, NUS launched its first building cluster targeting Net Zero Energy in 2023, comprising SDE4 and two of its oldest buildings on campus – SDE1 and SDE3, which were built in the 1970s.

The University also committed to plant 100,000 trees by 2030, which constitutes 10% of NParks’ OneMillionTrees movement. In support of Singapore’s Zero Waste Masterplan, NUS launched the Towards a Zero Waste NUS Action Plan 2030 to promote a resource sorting and waste reduction culture on campus, complemented by its network of passionate student advocates, who testbed sustainability projects on campus.

On the research and development front, NUS has initiated efforts to mitigate urban heat on campus, such as the cool paint research trial in the College of Design & Engineering. The NUS–Temasek Blue Carbon Project is one of the largest and most comprehensive blue carbon monitoring academic projects in the region. NUS also launched the Centre for Hydrogen Innovations in 2022, which aims to develop breakthrough technologies to enable a hydrogen economy.



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Additionally, the University has been recognised with several accolades in the built environment, such as the BCA Green Mark Platinum Champion Award in 2021 for achieving 50 Green Mark Gold and above certifications for developments campus-wide; the International Living Future Institute Zero Energy Certification in 2020; several NParks Landscape Excellence Assessment Framework Certifications; and the ASEAN Energy Awards from 2020-2022.



Keppel Corporation – President’s Award for the Environment 2023 (Organisation)

Keppel Corporation has placed sustainability at the core of its strategy, driven at the Board and C-suite level, including through its establishment of a Board Sustainability and Safety Committee. It appointed its Chief Sustainability Officer and established a Group Sustainability Department in March 2022 to coordinate and drive its sustainability efforts. It has contributed towards environmental sustainability through its business operations, investment and solutioning, as well as strong and sustained partnerships with the wider community.

Keppel has developed a roadmap to achieve net zero by 2050 and committed to halve its Scope 1 and 2 emissions from 2020 levels by 2030. Keppel has also expanded its tracking of Scope 3 emissions and disclosed all 15 relevant categories in its 2022 Sustainability Report.

Delivering innovative solutions to create a sustainable future is an integral part of Keppel’s purpose. Keppel has been leading the Singapore consortium of the Sino-Singapore Tianjin Eco-City since 2008, creating opportunities for Singaporeans and Singapore companies to be involved in its development and build capabilities in areas such as green building design and energy efficient systems. Keppel’s Real Estate Division has garnered a total of 92 BCA Green Mark awards across its properties in Singapore and overseas as at end-February 2023. It also sustainably upgraded Keppel Bay Tower, a 20-year-old office building where Keppel Corporation is headquartered, into Singapore’s first BCA Green Mark Platinum (Zero Energy) commercial building in 2020.

Keppel has been actively scaling up the deployment of renewable energy and low-carbon solutions. It is developing Singapore’s first hydrogen-ready power plant in the Sakra sector of Jurong Island, expected to be completed by 2026. Keppel is also the first electricity importer licensee in Singapore to import renewable hydropower, under the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project. It is collaborating with NEA in a joint study on the feasibility of carbon capture at Singapore’s waste-to-energy plants. It also developed and is operating the Keppel Marina East Desalination Plant, the first dual mode desalination plant that can treat seawater as well as freshwater, strengthening Singapore’s water supply resilience. Keppel also engages its employees on sustainability with its regular internal circulars to share sustainability best practices, and through its Global Learning Festival.

Beyond its business operations, Keppel has extended strong support to like-minded partners to enhance environmental sustainability for the wider community. It has committed more than S\$6 million to the Garden City Fund since 2016, of which S\$2 million was used to support the restoration of the freshwater forest wetland ecosystem at the Singapore Botanic Gardens. Keppel has consistently supported environmental advocacy in schools, by providing funding for the Singapore



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Environment Council (SEC)'s School Green Awards, and collaborating with the Sustainable Singapore Gallery on the “R.I.S.E to the Challenge” programme to raise awareness on rising sea levels in schools. Keppel is also looking to build up sustainability capabilities along its value chain by collaborating with the United Nations Global Compact Network Singapore to provide carbon management workshops for its SME (small and medium enterprise) suppliers since Q4 2022.

Keppel's sustainability efforts have been recognised in recent years, including the BCA Green Mark Platinum Awards and SEC's Singapore Environmental Outstanding Achievement Award in 2022, PUB's ABC Waters certification and the Singapore Apex Corporate Sustainability Award in 2021. Keppel has retained the highest MSCI AAA ESG rating since 2020.



Annex C

Past Recipients of the President's Award for the Environment (PAE)

Since 2006, 45 outstanding environmental champions have been conferred the PAE.

List of Past Recipients		
S/N	Year	PAE Recipients
1	2021	<ul style="list-style-type: none"> • Mr Joseph K H Koh – <i>Individual</i> • Nanyang Girls' High School – <i>Educational Institution</i> • DBS Bank Ltd – <i>Organisation</i> • Edible Garden City – <i>Organisation</i> • PSA Corporation Limited – <i>Organisation</i>
2	2019	<ul style="list-style-type: none"> • Elias Park Primary School – <i>Educational Institution</i> • Mee Toh School – <i>Educational Institution</i> • Singtel – <i>Organisation</i>
3	2017	<ul style="list-style-type: none"> • Dr Shawn Kaihekulani Yamauchi Lum – <i>Individual</i> • Anchor Green Primary School – <i>Educational Institution</i> • Khoo Teck Puat Hospital – <i>Organisation</i>
4	2016	<ul style="list-style-type: none"> • Bukit View Secondary School – <i>Educational Institution</i> • Marsiling Primary School – <i>Educational Institution</i> • Ricoh Asia Pacific Pte Ltd – <i>Organisation</i>
5	2015	<ul style="list-style-type: none"> • Mrs Kirtida Mekani – <i>Individual</i> • Mr Kwek Leng Joo – <i>Individual</i> • East View Primary School – <i>Educational Institution</i> • Systems on Silicon Manufacturing Company – <i>Organisation</i>
6	2014	<ul style="list-style-type: none"> • Mr Eugene Heng – <i>Individual</i> • Institute of Technical Education – <i>Educational Institution</i> • Ngee Ann Polytechnic – <i>Educational Institution</i>
7	2013	<ul style="list-style-type: none"> • Fuhua Primary School – <i>Educational Institution</i> • Dunman High School – <i>Educational Institution</i> • Siloso Beach Resort – <i>Organisation</i>
8	2012	<ul style="list-style-type: none"> • Marsiling Secondary School – <i>Educational Institution</i> • Panasonic Asia Pacific Pte Ltd – <i>Organisation</i> • HSBC Limited – <i>Organisation</i>
9	2011	<ul style="list-style-type: none"> • Dr Tan Wee Kiat – <i>Individual</i> • Woodgrove Secondary School – <i>Educational Institution</i> • SMRT Corporation Limited – <i>Organisation</i>
10	2010	<ul style="list-style-type: none"> • Singapore Polytechnic – <i>Educational Institution</i> • Nan Hua High School – <i>Educational Institution</i> • Hitachi GST – <i>Organisation</i>



List of Past Recipients		
S/N	Year	PAE Recipients
11	2009	<ul style="list-style-type: none">• Commonwealth Secondary School – <i>Educational Institution</i>• STMicroelectronics Pte Ltd – <i>Organisation</i>• National Youth Achievement Award Council of Singapore – <i>Organisation</i>
12	2008	<ul style="list-style-type: none">• Southwest CDC – <i>Organisation</i>• Alexandra Hospital – <i>Organisation</i>• Senoko Energy – <i>Organisation</i>
13	2007	<ul style="list-style-type: none">• Prof Leo Tan – <i>Individual</i>• Mr Tan Gee Paw – <i>Individual</i>• City Developments Limited – <i>Organisation</i>
14	2006	<ul style="list-style-type: none">• Dr Geh Min – <i>Individual</i>• Prof Tommy Koh – <i>Individual</i>• Waterways Watch Society – <i>Organisation</i>



Annex D

Locally Sourced Produce at the President’s Award for the Environment

This year, locally sourced produce was incorporated into the President’s Award for the Environment dinner menu, in line with the Government’s commitment to work with the Hotel, Restaurant and Catering (HoReCa) industry to increase demand and offtake for local produce. Local produce is fresh, nutritious, and incurs fewer food miles. Consumers can look out for the SG Fresh Produce logo on packaging while grocery shopping, and the Farm-to-Table Recognition Programme logo to support establishments that use locally produced ingredients.

Course / Dish	Produce used and farm description
Starter Beetroot Chicken Frittata in Kale Salad 	Egg from N&N Agriculture N&N Agriculture is a modern hen shell egg farm which produces more than 700,000 eggs a day (over 250 million eggs annually). The farm was the first to pioneer the production of pasteurised shell eggs in Singapore, and adopts automation such as robot cleaners and egg handling machines to improve productivity. It has a new quail egg farm and expansion plans in the horizon. N&N’s eggs and egg products can be found in physical, online supermarkets and convenience stores (e.g., FairPrice, RedMart, 7-11). For more information: www.eggstory.com.sg



	<p>Kale from Sustenir</p> <p>Sustenir is a high-tech indoor vertical farm that uses controlled environment agriculture to grow highly nutritious non-native superfoods such as kale. It is known for growing Singapore's first kale that's sweeter and crispier. The farming system uses 95% less water than a traditional land-based farm. Sustenir is Singapore's first three-star urban farm, certified under the Clean and Green Urban Farm (SG C&G) standards that assure consumers that the food produced is sustainable and quality assured.</p> <p>Sustenir's produce can be found at all major supermarkets and online platforms (e.g., FairPrice, Redmart).</p> <p>For more information: www.sustenir.com</p>
<p>Main Pan Seared Seabass with Mashed Potatoes and Roasted Mixed Vegetables</p> 	<p>Seabass from Grand Pacific Fishery</p> <p>Grand Pacific Fishery is a coastal fish farm located in the West Johor Strait within the borders of Singapore and a demand aggregator that also sources fish from other coastal farms. It produces Asian Seabass, Hybrid Groupers, Marine Tilapia, Mullet and Vannamei Shrimp. It has been investing in solar energy to operate the farm.</p> <p>The farm also supplies live shrimps to Alive Seafood at Tiong Bahru Market and 88 Seafood Restaurant.</p> <p>Lemon-Basil from Frux Earth</p> <p>Frux Earth (Joint venture between Kitchen Haus Group and Metro Farm) grows leafy greens in vertical growing systems on rooftop spaces around Singapore, utilising fish waste and beneficial bacteria to produce a sustainable ecosystem of green crops and freshwater fishes.</p> <p>Its produce can be found as part of Kitchen Haus Group's catering offerings.</p> <p>For more information: www.kitchenhaus.com.sg/urban-farming/</p>



	<p>Vegetables in roasted mixed vegetables from Sustenir</p> <p><i>Information on Sustenir provided earlier.</i></p>
<p>Dessert Lemon Mint Curd Tart with Blue Pea Flower Marshmallows</p> 	<p>Mint and Blue Pea Flower from Frux Earth</p> <p><i>Information on Frux Earth provided earlier.</i></p>