The Matcha Initiative

GREEN PLAN SINGAPORE

MAIN TARGETS

Curated in November 2023
The Matcha Initiative « Deep dive and Be Part of SG Green Plan » Evening

FOCUS #1: CITY IN NATURE

Plant **1 million more trees**

Develop over 130 ha of new parks, **enhance around 170 ha of existing parks** with more lush vegetation and natural landscapes (by year 2026)

Increase nature parks' land area by over 50% from 2020 baseline (by year 2030)

Add 1000 ha of green spaces (by year 2035)

Restore nature into the urban landscape

Target for **restoration and enhancement of forest, coastal and marine habitats** increased from 30 ha to 80 ha by 2030 to help native biodiversity

Strengthen connectivity between Singapore's green spaces: establish **500 km of park connectors** by 2030

Every household to be **within a 10-minute walk from a park** (by year 2030)

Enhance **veterinary care and animal management**

This will be underpinned by the **support and involvement of the community**

FOCUS #2: SUSTAINABLE LIVING

Rally Stakeholders & Energise the community to Action	A Green Citizenry that Consumes and Wastes Less	A Climate-Friendly Green Singapore	Green Commutes	Strengthen Green Efforts in Schools
SG$ 50 millions **Eco Fund** to support ground-up projects involving the community and advance environmental sustainability	**Reduce household water consumption** to 130 litres per capita per day (by year 2030)	**Energy Labels** to be introduced for portable air conditioners and more lamp types	Bringing 8 in 10 households **within a 10-minute walk of a train station** by the 2030s.	Achieve a **two-thirds reduction of net carbon emissions** from the schools sector (by year 2030)
Provide platforms that enable co-creation and action for the Green Plan	**Reduce amount of waste to landfill** per capita per day by 20% (by year 2026) & further by 30% (by year 2030)	**Energy standards for appliances** to be raised over the next 2 years	**Electric buses to make up half of the public bus fleet** (by year 2030) [launch of tender for purchase of over 400 electric public buses and **New bus depots to support electric public bus operations** by 2030]	At least **20% of schools to be carbon neutral** (by year 2030)
	Larger supermarket operators to **charge at least 5 cents per disposable carrier bag** to encourage consumers to reduce the use of disposables since July 2023	Extension and expansion of the **Climate Friendly Households Programme**	**Existing diesel buses will be replaced with cleaner energy buses** (by year 2040)	**Eco Stewardship Programme:** all MOE schools from Primary to Pre-University. MOE will **strengthen the curriculum and school programmes on sustainability.** (Focus on food sustainability education in 2023)
	Aim to be a zero-waste nation powered by a circular economy, with a **high rate of recycling** so that precious resources can be used many times over.		**Expand rail network** to 360km (by early 2030s)	
	Extended producer responsibility scheme (EPR) for e-waste		**Expand cycling path networks to around 1,300km** (by year 2030)	
	Beverage container return scheme (plastic bottles & metal cans) to establish circular business models.		**Achieve 75% mass public transport** (i.e. rail and bus) peak-period modal share (by year 2030) and **more than 80% by year 2040**	
	Creating more avenues and putting in place **Behavioural nudges** to encourage all stakeholders to live more sustainably by reducing waste and recycling right. Example: **Bloobox distribution**		**Public, active and shared transport modes to account for 9 in 10** of all peak-period journeys (by year 2040)	
			Do more **to repurpose roads, and implement pedestrianisation where possible**	

FOCUS #3: ENERGY RESET

Green Energy	Greener Infrastructure and Buildings	Sustainable Towns and Districts	Cleaner-energy Vehicles	Sustainable Aviation	Sustainable Maritime
1.5 gigawatt-peak (GWp) of solar energy deployment, i.e. around **2%** of SG 2025 projected electricity demands, meeting the annual **electricity needs of around 260,000 households** (by year 2025) & **Increase solar energy deployment to at least 2 GWp**, to meet around **3%** of 2030 projected electricity demand and meet **the annual electricity needs of around 350,000 households** (by year 2030)	**Reduce energy consumption of desalination process** from current 3.5kWh/m3 to 2kWh/m3 (by year 2025) Long-term target: Reduce desalination energy further to 1kWh/m3 (by year 2030)	**Reduce energy consumption in existing HDB** towns **by 15%** (by year 2030)	**New registrations of diesel cars and taxis to cease** from 2025	Play an active role in the **International Civil Aviation** Organization's long-term global aspirational goal (LTAG) for international aviation to **reach net zero carbon emissions by 2050**	Play an active role in the **International Maritime** Organization's target **to reduce greenhouse gas (GHG) emissions from international shipping by at least 50% by 2050** compared to 2008 levels, and **to phase out such GHG emissions in this century**
Deploy 200 megawatt-hour of Energy Storage Systems (ESS) to enhance grid resilience and support clean energy transitions [In February 2023, Singapore officially launched a **285 megawatt-hour ESS on Jurong Island**, the largest ESS in Southeast Asia]	**Tuas Nexus,** Singapore's first integrated waste and used water treatment facility **to be 100% energy self-sufficient** (by year 2025)	**Install solar panels** on HDB blocks	All HDB towns to be Electric Vehicle (EV) ready **with chargers at all HDB carparks by 2025**	Set up a **SG$ 50 millions Aviation Sustainability Programme** to support feasibility trials, research studies and proof of concepts with aviation stakeholders	**All new harbour craft** operating in SG port waters to be fully electric, be capable of using B100 biofuels, or be compatible with net zero fuels from 2030
Best-in-class power generation technology that meets emission standards and reduces carbon emissions (by year 2030) (new emissions standards to be introduced in 2023)	**Green 80% of Singapore's buildings** (by Gross Floor Area) by 2030	**Enable urban farming** at rooftops of multi-storey carparks	**All new car and taxi registrations to be of cleaner-energy models** from 2030	**All new airside light vehicles, forklifts and tractors at Changi Airport to be electric** from 2025	Harbour craft and pleasure craft sectors to achieve **net zero emissions by year 2050**
Regional power grids: aim **to import up to 4 gigawatts of low-carbon electricity** by 2035, which would make up **around 30% of Singapore's projected electricity supply**.	**80% of new buildings** (by Gross Floor Area) to be **Super Low Energy buildings** from 2030	**Provide e-waste recycling bins** and Light Emitting Surfaces signages to make HDB towns more sustainable	**Deploy 60,000 EV charging points** nationwide by 2030	**All airside vehicles at Changi Airport to run on cleaner energy** by 2040	
Exploring emerging low-carbon alternatives such as hydrogen, geothermal and carbon capture, utilisation and storage. **In October 2022, announcement of the National Hydrogen Strategy** to develop hydrogen as a major decarbonisation pathway.	**Mandatory Energy Improvement (MEI)** for existing buildings with poor energy performance to: - undergo energy audits - implement energy efficiency improvement measures		**All vehicles to run on cleaner energy** by 2040		
	Best-in-class green buildings to see an 80% improvement in energy efficiency (over 2005 levels) by 2030				

FOCUS #4: GREEN ECONOMY

Transform existing sectors and help them decarbonise	Equip workers to pursue Green Opportunities	Green Economy Regulations	New Investments to be Among the Best-in-Class	Sustainability as a New Engine for Jobs and Growth
Targeted incentives to be introduced to help companies become amongst the best-in-class globally in terms of energy and carbon efficiency. For example: 1) **Resource Efficiency Grant for Energy (by EDB)**, to support manufacturing companies to reduce their emissions. 2) **Energy Efficiency Fund (by NEA)** to support companies to build capabilities and decarbonise by adopting energy efficient technologies by **funding up to 70 per cent of qualifying costs.**	Set up a **Green Skills Committee** to bring together industry players and training providers to develop green skills and training programmes for the local workforce	**Revise Carbon Tax levels** to SG$25 in 2024, SG$45 in 2026 and target between SG$50 to SG$80 in 2030	Seek new investments to be **among the best-in-class in energy / carbon efficiency**	**Jurong Island** to be a sustainable energy and chemicals park (by year 2030): - Achieve at least 2m tonnes of carbon abatement per annum from low carbon solutions by 2030 - Increase output of sustainable products by 1.5 times from 2018 levels by 2030 **The Energy and Chemicals sector** to be a key partner in the development of emerging low-carbon technologies, such as carbon capture, utilisation, and storage.
Enterprise Sustainability Programme (by Enterprise Singapore) to support Singapore businesses on sustainability initiatives, and to capture new opportunities in the green economy. The programme supports: **- training workshops** **- capability and product development projects** **- key enablers such as certification and financing**	**Institute of Higher Learning to continue to enhance skills training** and relevant research in the area of sustainability	**Green Economy Regulatory Initiative (GERI):** Platform to allow businesses with green solutions that face regulatory challenges to be assessed on an expedited timeline		**As part of the Research, Innovation, and Enterprise (RIE) initiative,** support the development and commercialisation of innovative solutions pertaining to sustainability, **such as in clean and renewable energy, the circular economy, and low-carbon solutions.**
Launch of new **courses including in Decarbonisation and Sustainable Finance** from 2Q2023				Singapore as a **sustainable tourism destination** (by year 2030) - Hotel Sustainability Roadmap launched
Support for SMEs to adopt carbon accounting solutions through the **Productivity Solutions Grant** from 2H2023				Singapore as a **leading centre for green finance and services** (by year 2030) to facilitate Asia's transition to a low-carbon and sustainable future - Project Greenprint
Extend **support of up to 70% for eligible sustainability projects under the Enterprise Development Grant** for three more years (up to 2026)				Singapore as a **carbon services hub in Asia** (by year 2030)
More self-help resources on sustainability, including playbooks and a one-stop website for SMEs over the next three years (up to 2026)				Singapore as a **leading regional centre for developing new sustainability solutions** (by year 2030)
				Groom a strong pool of local enterprises to capture sustainability opportunities (by year 2030)

FOCUS #5: RESILIENT FUTURE

Adapt to Sea-level Rise and Enhance Flood Resilience	Grow Local	Keep Singapore Cool
To protect Singapore from the threat of rising sea levels, here is what PUB has begun doing: - Commenced the **development of the Coastal-Inland Flood Model** in 2021 to assess flood risks holistically. - **Studying engineering solutions with nature-based enhancements** to hold back the rising seas. These include sea walls, earthen bunds, revetments and mangroves. - **Carrying out site-specific studies for vulnerable areas**	Build the capability and capacity of SG Agri-Food industry to **produce 30% of Singapore's nutritional needs locally and sustainably** (by year 2030) know as the **30by30 target**	**Mitigate the Urban Heat Island (UHI) effect** through the following ways: - Understand the UHI effect better by **deploying an island-wide network of climate sensors** to collect data - Conduct research and modelling on UHI effects, e.g. the **Cooling Singapore 2.0 project**
Complete formulation of coastal protection plans for City-East Coast, North-West Coast (Lim Chu Kang and Sungei Kadut) and Jurong Island (by year 2030) **covering half of Singapore's coastline.**	**SG$ 60 millions Agri-Food Cluster Transformation (ACT) Fund** to provide funding support to farms to build and expand their production capabilities and capacities action.	**Partner the industry and public** to implement a UHI mitigation action plan, including piloting the use of cool materials and reducing human-generated heat
	New Alliance for Action (AfA) to explore solutions to raise demand for local produce.	**Increase greenery and piloting the use of cool paint on building facades**
	Expansion of sustainable fish farming in the deeper Southern Waters of Singapore and transforming the coastal fish farms in the Straits of Johor to boost local fish production.	

FOCUS #6: GREEN GOVERNMENT

EXCEL **With new and more ambitious targets for public sector**	**ENABLE** **a sustainable economy and green citizenry, by embedding sustainability in public sector core business**	**EXCITE** **public officers to contribute actively to sustainability in Singapore**
The public sector has committed to peak emissions around 2025 and achieve net-zero emissions around 2045. This is ahead of the national target to achieve net-zero emissions by 2050.	Require Government agencies **to purchase products that meet high efficiency or sustainability standards.** This will apply to electrical appliances, water fittings, printing paper and building materials for interior use.	**Regular sharing sessions** organised within the public sector to promote the exchange of ideas, best practices, and the latest technological solutions, so as to inspire and support public officers to champion ground-up initiatives.
By 2030, the public sector aims to **reduce energy** *(Energy used per unit area)* **and water use** *(Water used per person per day)* **by 10 per cent** from the average of 2018 - 2020 levels	**Factor in companies' sustainability-related policies and practices when evaluating government tenders**, starting with large construction and Information and Communications Technology (ICT) tenders. [**Up to 5% of evaluation points** for environmental sustainability for large government constructions and ICT tenders from FY2024]	**Organise campaigns to raise awareness** and encourage public officers to take simple steps to lead a more sustainable lifestyle
By 2030, the public sector aims **to reduce the amount of waste disposed** *(Waste disposed of per person per day)* **by 30 per cent** from 2022 levels.	**Incorporate sustainability features at public spaces,** such as hawker centres and community clubs to raise public awareness. Educate the community on sustainability issues through school curriculum and community programmes.	**Annual Greengov.SG report** on gvt's effort, progress and plans from FY2023
The public sector has also set **targets for buildings, information technology, transport, and solar deployment.** For instance: - **All new and existing buildings (upon major retrofit) are to achieve Green Mark Platinum Super Low Energy** (SLE) standards or equivalent, where feasible. - **All cars procured and registered are to be clean energy vehicles** with zero tailpipe emissions, starting from 2023. For all the above, the scope of GreenGov.SG will be expanded to **include public sector infrastructure and operations, such as public transport infrastructure and healthcare facilities.**		**Statutory Boards to publish annual environmental sustainability disclosures** on their efforts, progress and plans from FY2024