



INTERVIEW

IN CONVERSATION WITH
INDRANEE RAJAH

An Inclusive and Sustainable Singapore

Indranee Rajah, Singapore's Minister in the Prime Minister's Office, Second Minister for Finance and Second Minister for National Development, gives us the lowdown on the city-state's net zero transition strategy, and how green finance, technology and the community will underpin its success.



| *Image: Ministry of National Development (MND), Singapore*



Singapore has been working hard to build an inclusive and liveable city, undertaking placemaking efforts to forge strong community bonds within neighbourhoods and with the city.



What would make Singapore an inclusive and liveable city? How will the nation's drive towards net-zero emissions feature in this, and where are we now vis-à-vis the target?

An inclusive and liveable city is one with a high-quality living environment where communities are well connected and thriving. This could be achieved by applying inclusive housing concepts and offering a range of amenities that improve the quality of life, e.g., green and play spaces. Singapore has been working hard to build an inclusive and liveable city, undertaking placemaking efforts to forge strong community bonds within neighbourhoods and with the city.

These strong community bonds are not just a feature of an inclusive and liveable city but also a key driver of our net-zero emissions ambition. That's because tackling climate change whilst building an inclusive and liveable city is a long-term endeavour that will require the collective efforts of all stakeholders. People could take greater ownership of the sustainability efforts in their neighbourhoods, play an active role in coming up with solutions and partner other stakeholders, such as businesses and educational institutions.

Singapore has the right foundations in place to make the transition towards net zero. Beginning with communities, we launched the Green Action for Communities, which brings together members of the community to plan, organise and implement sustainable initiatives in engagement with stakeholders across all districts. Such community-led initiatives are an important complement to regulations and sustainable building policies.

In terms of public policy, Singapore has introduced a carbon tax to address the problem of large emitters. To enable the transition to a low-carbon future, Singapore will raise its carbon tax levels progressively from 2024. Revenue from the carbon tax will be used to support our decarbonisation efforts and transition to a green economy, including cushioning businesses and households from the impact of the shift.



Bishan-Ang Moh Kio Park, Singapore.
Image: Kandl / iStock

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Finally, on the infrastructure front, Singapore has taken great strides in improving the energy efficiency of buildings. For example, the Building and Construction Authority's Super Low Energy programme encourages the implementation of leading-edge energy-efficient solutions for new and existing buildings. There is also the practice of sustainable construction methods that encourage more recycling and upcycling of construction waste, alongside the efficient use of building materials and substitution of concrete with natural materials. Such initiatives will steadily decarbonise our built environment, for both new and existing buildings.

Together, these solutions work on various fronts to help achieve Singapore's net-zero objectives. They are also a work in progress, which Singapore has been advancing over many years and will continue to do so in our transition towards a low-carbon future.

How important is sustainable financing to Singapore's future development? How is the Singapore government leading the way in sustainable development and financing its built environment while developing partnerships with other governments, multilateral banks and the private sector?

Sustainable financing will be an important component of Singapore's future development because it incentivises businesses to help the environment. This encourages and creates a space for private-sector participation in Singapore's future development. There is better sharing of the risks and costs associated with infrastructure development; private-sector collaboration will also inject fresh ideas and greater innovation, and reduce

project completion times. Moreover, our net zero transition will require a significant redirection of capital towards sustainable financing to create and enable green solutions. This is the future trajectory of sustainable development in Singapore.

We are not new to sustainable financing though. Singapore is the largest sustainable finance market in Southeast Asia, accounting for close to 50% of the region's cumulative sustainable debt issuances, to date. To further develop Singapore into a sustainable finance hub in Asia and to achieve our vision for a sustainable future, the Monetary Authority of Singapore (MAS) has put together a Green Finance Action Plan. This includes ensuring there are consistent, comparable and reliable climate-related data, definitions and disclosures for sustainable finance to work effectively.

Singapore is also actively working with industry and international partners to put in place key enablers to scale sustainable finance globally. This means engaging with financial institutions to include environmental, social and governance (ESG) criteria in their decision-making processes; driving the adoption of industry standards and guidelines; encouraging industry-led capacity-building efforts; developing the green bond market in Singapore; and finally, collaborating with local stakeholders and international counterparts to distil best practices.

To foster the growth of a strong and diverse ecosystem of green financing capabilities in Singapore, the MAS has set up a US\$2 billion (S\$2.81 billion) green investment programme. Among its focuses are attracting sustainability-focused asset managers to Singapore and catalysing funding for environmentally sustainable projects in Asia.



Indranee Rajah, Singapore's Minister in the Prime Minister's Office, Second Minister for Finance and Second Minister for National Development, engaging stakeholders.

Image: Ministry of National Development (MND), Singapore

More recently, Singapore published the Singapore Green Bond Framework, which lays the foundations for the issuance of green bonds by the Singapore government. These new guidelines will serve as a benchmark for corporate green bonds. The sovereign green bonds will be used to finance nationally significant infrastructure, such as the upcoming Jurong Region Line and the Cross Island Line, and will help us achieve the ambitious goal of reducing land transport emissions by 80% by or around 2050. We are also exploring the use of green bonds for climate change adaptation projects, including coastal protection.

Green financing will require the use of digital enablers, such as data platforms that aggregate multiple data points for practical applications in the built environment. How will these platforms contribute to making Singapore's built environment more sustainable?

Currently, there is a shortfall of high-quality, trusted data on sustainability outcomes, which suitable data platforms can help address. Narrowing or closing these data gaps will in turn enable financial institutions to direct capital towards sustainable built environment projects in a more scalable way, in addition to effectively monitoring their sustainability performances and quantifying the risks and real-world impact of their portfolios.

For example, the MAS is currently working on two use cases, using data from its Project Greenprint's ESG Registry and Data Orchestrator to facilitate green and sustainability-linked trade finance in the sectors of building and construction, and palm oil, in collaboration with industry players. This will



Reflections at Keppel Bay.
Image: dennisthetiger / iStock

facilitate banks' digitalisation of green trade finance transactions, and provide greater assurance of these transactions meeting the criteria set out in the banks' green and sustainability financing frameworks. The industries will also gain more seamless and timely access to green trade financing from banks.

Overall, the presence of a common data platform supports the development of a green finance ecosystem, where green technology providers are connected to investors and financial institutions, boosting the uptake for sustainable urban development, moving forward.

In what other ways would technology play a part in Singapore's future urban development?

Singapore has consistently turned to technology as an enabler of city planning and a source of solutions to our urban challenges. In Singapore, "smartness" is not just about having the most sophisticated or advanced technologies; rather, it is about innovatively harnessing technology and integrating it in the planning, development and governance of our urban systems, to make people's lives more convenient and liveable.

For example, as part of Singapore's smart and sustainable efforts, our newest housing town at Tengah is planned with green design principles and smart technologies, focused on eco-friendly and improved cooling. To this end, the Housing & Development Board collaborated with local research institute, A*STAR, to study different environmental factors, such as solar heat gain, wind flow, air temperature, and their combined effects on the urban landscape. This helps our urban planners to design open spaces and optimise building layouts and orientation to promote natural ventilation within the town, thereby creating a living environment of improved breathability and comfort. The town will also have an automated rubbish collection system, as well as centralised cooling systems for homes.

The future of mobility is another area where technological innovations will serve to develop a sustainable, people-centric network while supporting efficient urban logistics. This will improve the way people move around in Singapore, and offer us adaptability in meeting our evolving needs. This could be in the use of autonomous vehicles, which would not only reduce the accidents due to human error, but also help optimise road spaces and address manpower shortages while creating new job roles. To support such innovations, Tengah will feature road networks designed to cater for autonomous vehicles. Beyond autonomous vehicles, Singapore is also analysing anonymised data from commuters' fare cards to identify commuter hotspots and in turn, better manage bus fleets. This data contributes towards Singapore's public transport planning, ensuring that the bus system is efficient while meeting commuters' needs.

What other paradigm shifts should cities prioritise to "emerge stronger"?

Cities can emerge stronger by embracing nature and ecosystem services (i.e., the benefits that ecosystems bring to our well-being) in our future urban development. For instance, initiatives like NParks' OneMillionTrees

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Artist's impression of the Tengah New Town.
Image: Housing & Development Board (HDB),
Singapore



movement which aim to plant one million additional trees is an effort to leverage the natural ecosystem to cool the built environment, store and sequester carbon, while strengthening ecological connectivity in Singapore. Moving forward, we can collectively do more by leveraging the synergies of ESG for companies to similarly invest in nature-based solutions in Singapore.

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We would also need to consider the role of the community in strengthening our cities. For example, as individuals and communities gain greater awareness of sustainability and climate change issues, we have begun to see the community getting involved in awareness building and solutions development. The Singapore government set up the S\$50 million SG Eco Fund in 2020 to support community-based projects that advance environmental sustainability. Through the fund, the community learns to build a more sustainable Singapore for the present and future generations. Awarded projects include a self-help recycling zone by the Buddhist Compassion Relief Tzu-Chi Foundation, set up to teach community residents to recycle in the right way; and an environmental education programme, Student Heroes in Environmental Leadership Development, where student leaders are mentored to implement environmental projects in their communities.

Support for ageing in place is another priority. Specifically in Singapore, the society is maturing into its third age. This may require the rejuvenation and revitalisation of housing typologies, to address the needs of an ageing population. A big part of this involves exploring new housing and care options for senior residents, such as multigenerational dwellings or service-bundled housing. Efforts are already ongoing to introduce new typologies such as those in Kampung Admiralty and the Community Care Apartments, which are elderly-friendly housing with care options. A new project I would like to highlight is the Health District @ Queenstown, where we are piloting various initiatives to support residents to lead healthy and purposeful lives. We hope this will pave the way for supporting seniors nationwide, as successful initiatives in the Health District could be included in future rejuvenation plans and scaled to other towns and estates. 📍