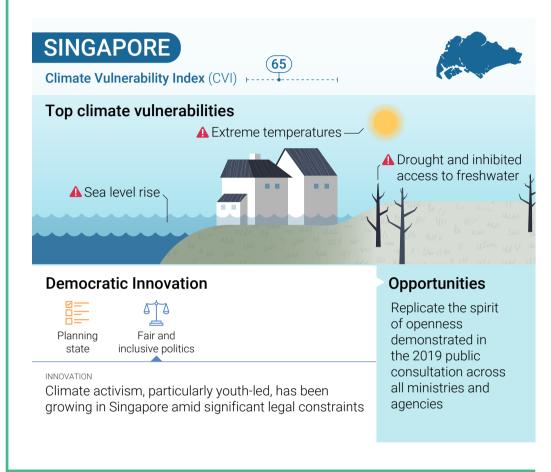
# Chapter 8 SINGAPORE

#### 8.1. INTRODUCTION

International IDEA's Global State of Democracy Indices describe Singapore's performance as mid-range (0.40–0.70) in categories such as representative government, fundamental rights, social rights and equality, and checks on government. Singapore received a high-performance rating (0.86) for Impartial Administration but a low performance rating for both Freedom of Expression (0.39) and Direct Democracy (0.01) (International IDEA 2021).

In December 2021, the CIVICUS Monitor 2021 downgraded Singapore's civic space rating to 'repressed' in response to concerns regarding 'restrictions on free speech, the curtailment of media freedoms, and the use of overly broad and ambiguous laws to restrict activism' (CIVICUS Monitor 2021b). According to CIVICUS, the Foreign Interference (Countermeasures) Act (FICA), which was enacted in October 2021, enables the Minister of Home Affairs to target individuals who act, for example, 'towards a political end', thereby creating a broad ambit within which 'almost any form of expression and association relating to politics, social justice or other matters of public interest in Singapore may be ensnarled' (CIVICUS Monitor 2021b). The downgraded rating is consistent with the low performance rating for freedom of expression assigned to Singapore by the Global State of Democracy Indices.

Figure 8.1. Singapore



Singapore has been a parliamentary democracy since independence on 9 August 1965 (Singapore Ministry of Foreign Affairs n.d.). Singapore's Head of State is President Halimah Yacob and the executive branch of government is led by Prime Minister Lee Hsien Loong of the People's Action Party (PAP). The 14th Parliament has 103 members (MPs)—92 elected constituency MPs, 2 nonconstituency MPs (NCMPs) and 9 nominated MPs (Parliament of Singapore 2022b). At the 2020 general election, the PAP won 83 seats, the Workers' Party won 10 seats and the Progress Singapore

Party was allocated 2 NCMP seats.<sup>5</sup> Having doubled its number of seats at the 2020 general election, the Secretary-General of the Workers' Party, Pritam Singh, became the Leader of the Opposition (Parliament of Singapore 2022a).

#### 8.2. CLIMATE VULNERABILITY

Singapore is vulnerable to the effects of climate change on a number of levels. First, 30 per cent of the island is less than 5 metres above sea level, leaving it vulnerable to increases in sea levels, as well as the risk of coastal erosion and inland flooding. Tide-gauge measurements in the Singapore and Johor Straits show that sea levels rose by 12–17 mm per decade between 1975 and 2009 (Tkalich et al. 2013). Swell waves swept up by the north-east monsoon storms pose an increasing threat to reclaimed land.

Second, thermal comfort will be disrupted by the 'urban heat island effect', which compounds warming and adversely affects livability and the quality of urban life. Third, food security will become an increasingly important issue as Singapore currently imports over 90 per cent of its food, exposing it to the volatility of supply and demand in the global food markets (Singapore Food Agency 2020). Fourth, Singapore has no natural water resources. It imports much of its water from Malaysia, and the remainder is drawn from collected rainwater, desalination and filtered sewage water (see e.g. Ghangaa 2018; Vietnam Investment Review 2019). Drought has affected the region, including Malaysia, so Singapore will need to strengthen its water security and its resilience to drought conditions. Singapore's climate vulnerabilities will require comprehensive adaptation efforts and strategies.

Singapore is ranked 6th of 182 countries in the University of Notre Dame Global Adaptation Initiative (ND-GAIN) Index of 2020, between Denmark (5th) and Austria (7th) (University of Notre Dame 2022a). It is the 118th most vulnerable country, with a ranking of 65, and is the

<sup>5</sup> The Singapore Constitution allows for up to 12 NCMPs to be elected. NCMPs are from opposition parties; they are offered NCMP seats if they lose the election but receive the highest percentage of votes among unelected candidates from opposition parties. This policy ensures that there will always be a minimum number of opposition members in parliament.

most ready country (ranked 1st) (University of Notre Dame 2022a, 2022b).

#### 8.3. CLIMATE ACTION

Singapore ratified the UN Framework Convention on Climate Change on 27 August 1997, which it signed on 29 May 1997. It also signed the Kyoto Protocol on 12 April 2006 and ratified it on 11 July 2006. In addition, Singapore ratified the Doha Amendment to the Kyoto Protocol on 24 September 2014 and signed the Paris Agreement on 22 April 2016, which it subsequently ratified on 21 September 2016 (see United Nations Treaty Collection n.d.).

Singapore's Constitution does not address the climate crisis but as a party to the above treaties, it has introduced climate change laws and policies (Lin 2020). In 2015, Singapore submitted an Intended Nationally Determined Contribution (INDC), which was later resubmitted as Singapore's first Nationally Determined Contribution. In the NDC, Singapore pledges to reduce emissions intensity by 36 per cent below 2005 levels by 2030 (NCCS 2020b). On 31 March 2020, Singapore updated its NDC in line with the Paris Agreement's 'ratchet mechanism' to reflect an absolute emissions limitation target of 65 million tonnes of CO<sub>2</sub> equivalent (MtCO<sub>2</sub>e), which uses the latest IPCC methodologies and includes nitrogen triflouride (NF<sub>2</sub>) as an additional gas (NCCS 2020b). This updated target represents progress beyond the first NDC. Singapore has also submitted its long-term Low Emissions Development Strategy (LEDS), pursuant to article 4, paragraph 19 of the Paris Agreement, and aims to halve emissions to 33MtCO<sub>2</sub>e by 2050, with a view to achieving net zero emissions as soon as it is viable in the second half of the century (NCCS 2020a).

In 2021, the Climate Action Tracker, which tracks countries' NDC submissions, assessed Singapore's climate target to be 'critically insufficient' and gave it the worst rating on the Climate Action Tracker's five-point scale (Climate Action Tracker 2021). A spokesperson for the National Climate Change Secretariat (NCCS) said that the government was reviewing the methodology used and observed that the Climate Action Tracker may not have fully

Singapore's
Constitution does not
address the climate
crisis but it has
introduced climate
change laws and
policies.

accounted for Singapore's unique challenges as a small city-state with limited capacity to harness alternative energy resources (Tan 2021a).

A number of laws have been passed to address climate change. For example, the Environmental Management and Protection Act 1999 consolidates the laws relating to the control, protection and management of environmental pollution. Its focus is on environmental pollution control in the air and water, and on noise pollution (Bea et al. 2019). On 13 September 2021, amending legislation was passed to provide for the control of greenhouse gases (GHG). Among other things, the Environmental Protection and Management (Amendment) Act 2021 mandates measures to mitigate the GHG impacts of the hydrofluorocarbons typically used in refrigeration and air conditioning (Singapore National Environment Agency 2021).

The Carbon Pricing Act 2018 (CPA), which took effect on 1 January 2019, together with the various regulations made under the Act, are further examples of such legislation. The CPA sets out the framework for a carbon tax and the obligations of large GHG emitters, including measurement, reporting and verification (MRV) requirements. The carbon tax covers six GHGs (Second Schedule, Part 1). An industrial facility that emits direct GHG emissions equal to or above 2,000 tonnes CO<sub>2</sub>e annually is required to register the business facility as a reportable facility and submit an Annual Emissions Report (Part 3). Once an industrial facility has emitted direct GHG emissions equal to or above 25,000 tCO<sub>2</sub>e annually, it is also required to register as a taxable facility and submit annual Monitoring Plans and Emissions Reports (Part 3). Taxable facilities will have to pay a tax at the rate of SGD 5 per tonne of GHG emissions (tCO<sub>2</sub>e) in the period 2019 to 2023 (CPA 2018).

Singapore's emissions profile for 2019 shows that total emissions were approximately 51.6 MtCO<sub>2</sub>e, of which power and industry constituted 84.3 per cent of primary emissions (NCCS 2022a, 2022c). Because Singapore's carbon tax applies to large emitters that directly emit 25,000 tCO<sub>2</sub>e per year, the CPA effectively covers around 80 per cent of Singapore's total emissions (NCCS 2022a). The carbon tax applies uniformly to all sectors without exemption, making

Singapore's carbon tax system one of the most comprehensive in terms of coverage. In 2021, it was announced that the initial carbon tax rate of SGD  $5/tCO_2$ e would be reviewed and increased to between SGD 10 and SGD  $15/tCO_2$ e by 2030; the results of the review were to be announced in the 2022 Budget (Ho 2021). In 2022, the Singapore Government announced that its carbon tax would be revised from SGD 5 to SGD  $25/tCO_2$ e in 2024 and 2025, following which it would increase to SGD  $45/tCO_2$ e in 2026 or 2027, and SGD 50 to SGD 80 per tonne by 2030 (NCCS 2022b; see also Singapore Ministry of Finance 2022).

Other relevant legislation includes the Energy Conservation Act 2012, which promotes energy conservation and improved energy efficiency. This was amended by the Energy Conservation (Amendment) Act 2017, which requires the 30 or 40 largest emitters covered by the Act to develop monitoring plans and submit verifiable emissions reports (s. 78). In 2019, parliament passed the Resource Sustainability Act 2019, which addresses relatively high waste generation streams with low rates of recycling, such as electronic waste (Part 3), and food and packaging waste including plastics (Parts 4 and 5) (Singapore Ministry of Sustainability and the Environment 2020). This Act also introduced an Extended Producer Responsibility (EPR) scheme for electronic waste in Singapore (Part 6).

#### 8.3.1. Climate action champions

In 2018, the Singapore Government worked with an informal group of green group leaders and individuals to set up the Climate Action SG Alliance (CASA), which aims to harness mass communication to inspire climate action. Its members came from the private sector and civil society, and the Senior Minister of State for the Ministry of Sustainability and the Environment attended in an advisory capacity. CASA has undertaken three broad projects on climate action—Project Education, Project Business and Project Recycling (Climate Action SG Alliance n.d.).

Climate activism has been growing in Singapore. Groups such as Eco Singapore, Singapore Youth for Climate Action and LepakInSG have organized events to raise awareness about climate action, including bringing young people to and involving them in international climate negotiations and sharing their findings on return. Inspired

Climate activism has been growing in Singapore.

by the global climate youth movement generated by the Swedish teenager Greta Thunberg, SG Climate Rally organized the country's first climate rally at Hong Lim Park on 21 September 2019. The park hosts the only designated Speakers' Corner in Singapore, where public protest is permitted subject to police permits having been obtained. Organized by students, the SG Climate Rally attracted more than 1,700 participants, all dressed in red, calling for greater action on climate change (Tan 2019; Wong 2019).

During the 2020 general election, two civil society groups—SG Climate Rally and Speak for Climate (S4C)—ran a campaign called Greenwatch to identify which political parties supported enhanced climate action (Singapore Climate Rally n.d.). They produced a Climate Scorecard to assess the party manifestos and ranked parties on how they addressed climate change (in the case of the ruling party), or how they proposed to address climate change (in the case of opposition parties) (Greenwatch n.d.). Greenwatch found that all political parties in Singapore support enhanced climate action. The scorecard was consulted widely by younger voters to understand the parties' climate ambitions.

#### 8.3.2. The role of various levels of government

The Inter-Ministerial Committee on Climate Change (IMCCC) was set up in 2007 to coordinate climate action across ministries. The IMCCC is chaired by the Senior Minister and Coordinating Minister for National Security (see Figure 8.2). The IMCCC Executive Committee oversees the work of the International Negotiations Working Group, the Long Term Emissions and Mitigation Working Group and the Resilience Working Group (Singapore National Environment Agency 2016). The National Climate Change Secretariat (NCCS) was established in July 2010, as part of the Prime Minister's Office, to ensure effective coordination of Singapore's domestic and international policies, plans and actions on climate change.

#### 8.3.3. The role of courts

Laws have been strengthened and amended over the years to manage GHG emissions, but affected firms are usually given considerable latitude in the form of transition periods to adhere to new rules, thereby reducing non-compliance (Singapore Ministry of Finance 2018). While environmental groups, activists and

Inter-Ministerial Committee on Climate Change (IMCC) Chaired by Deputy Prime Minister and coordinating Minister for National Security Members: Minister for the Environment and Water Resources, Minister for Finance, Minister for Foreign Affairs, Minister for National Development, Minister for Trade and Industry (Trade), Minister for Trade and Industry (Industry) and Minister for Transport **IMCC Executive Committee** Chaired by Permanent Secretary (PMO) (Strategy) Members: PS (Environment and Water Resources), PS (Finance) (Performance), PS (Foreign Affairs), PS (National Development), PS (National Research and Development), PS (Trade and Industry), PS (Transport) and Chairman (Economic Development Board) Resilience Working Group nternational Negotiations Long Term Emissions and Working Group (INWG) **Mitigation Working Group** Chaired by Chaired by Chaired by PS (Foreign Affairs) PS (PMO) (Strategy) PS (National Development) and and PS (Environment PS (Trade and Industry) and Water Resources) Source: Singapore National Environment Agency (NEA), Singapore's Second Biennial Update Report, 2016: Under the United Nations Framework Convention on Climate Change (Singapore: NEA, 2016), <a href="https://unfccc.int/">https://unfccc.int/</a>

Figure 8.2. Inter-Ministerial Committee on Climate Change

communities elsewhere have used the law and the courts to influence governments and corporations to take climate action, this has not yet happened in Singapore.

documents/180715>, accessed 21 May 2022.

## 8.4. DEMOCRATIC DEBILITATION AND INNOVATION IN ADDRESSING THE CLIMATE CRISIS

The Singapore Government regularly issues calls to action directed at individuals, the wider community and businesses. In developing policy responses, the NCCS and the Ministry of Sustainability and the Environment have held public consultations to understand the interests of and barriers experienced by various stakeholders. Public consultations have been held either physically or online since 2015, and form part of a democratic process to address the climate crisis.

In-person public consultations regularly involve 50–100 participants. The government has organized sector-focused stakeholder dialogues and sought to capture responses online, in order to canvass a range of views (see e.g. NCCS 2015).

In February 2020, the government announced that it would publish a summary of the responses to the consultation on the websites of the government's feedback unit, REACH, and the NCCS in the first quarter of 2020. The NCCS reached out to those who submitted feedback for permission to publish their responses but only 21 of the around 2,000 responses were published on 4 March 2020 (NCCS 2020a). These responses were from well-known climate activists and observers in Singapore. The small number of published responses could indicate that most of the respondents were not keen to have their feedback published for fear of repercussions.

On 1 February 2021, the 14th Parliament debated and passed a motion recognizing climate change as a global emergency and threat to mankind and calling

on the Government, in partnership with the private sector, civil society and the people of Singapore, to deepen and accelerate efforts to mitigate and adapt to climate change, and to embrace sustainability in the development of Singapore.

(Parliament of Singapore 2021)

During the nine-hour parliamentary debate, 18 MPs shared their views and highlighted the low level of the carbon tax. Following the debate, the Minister for Sustainability and the Environment, Grace Fu, announced a new Green Plan to help Singapore improve its approach to sustainability. The Deputy Prime Minister and then Finance Minister, Heng Swee Keat, announced that the trajectory and level of Singapore's carbon tax would be reviewed after 2023 'in consultation with industry and expert groups' (Tan 2021b). He added that businesses would be given time to adjust to any revision in the carbon tax trajectory.

There was no further reference to public consultations on the carbon tax review until 13 September 2021, when the MP Louis Ng Kok

Kwang asked the current Minister for Finance, Lawrence Wong, whether public consultations would be held. The Minister replied that the government planned to 'engage widely' as part of the review. On 7 December 2021, the Ministry of Finance invited 'views and suggestions' from the public on three themes ahead of the 2022 Budget statement, which was scheduled for 18 February 2022. The third theme referred to 'preparing Singaporeans for a greener and more sustainable future'. However, there was no mention of the carbon tax review in the press release or annex document (Singapore Ministry of Finance 2021b). A small number of climate activists were invited to a 'Pre-Budget engagement' with the Second Minister for Finance, Indranee Rajah, on 24 January 2022.

Public consultations are an important tool for ensuring public participation in democracy, as a means of disseminating information or as a forum for responding to policies, such as those to address the climate crisis. The Singapore Government has attempted to provide avenues for public feedback in the past year, such as through REACH or in conversations with a broad agenda (e.g. the Singapore Green Plan Conversations). At their best, these public consultations allow some members of the public to provide feedback to public servants. At worst, they can lack meaning-it is not always transparent whether or how feedback has been considered in policymaking on climate change. The NCCS public consultation in 2019 was innovative, as it provided a clear response in the form of a 94-page document and allowed those who submitted feedback to have their responses published on an official government website. One possible reason for this could be that the consultation was in relation to long-term policies rather than policies with a more immediate implementation timeline. This appears to have been a one-off effort, however, as the spirit of openness demonstrated in the 2019 public consultation does not appear to have been replicated across ministries or agencies since.

Han (2017) refers to Singapore's approach to environmental policymaking in the context of authoritarian environmentalism, describing it as top-down and non-participatory in nature, partly due to the prioritization of economic development. Han refers to the government as 'maintain[ing] a top-down, managerial, and non-participatory approach to environmental governance based on an

Public consultations are an important tool for ensuring public participation in democracy, as a means of disseminating information or as a forum for responding to policies.

instrumental view of nature', and highlights how non-state actors, such as environmental and non-governmental organizations, are marginalized (Han 2017: 6). This is problematic, as meaningful engagement with organizations and NGOs will be important if Singapore wishes to address the climate crisis within a democratic framework. At the SG Climate Rally in 2019, organizers demanded that the government: (a) face the truth about the climate emergency; (b) combat the crisis with a national climate mitigation plan; and (c) engage with the people on the climate crisis. To this end, they called on the government to remove the 'roadblocks' that are currently discouraging open political discussion on the matter, and to provide safe and open spaces to encourage dialogue.

SG Climate Rally has asked that policy information and statistics be made publicly accessible and transparent, and for the government to involve 'independent' academics and members of the public when drafting policies (Singapore Climate Rally n.d.). On the subject of climate mitigation, SG Climate Rally has demanded: a Climate Change Act; a commitment to net zero emissions by 2050; a just transition away from the petrochemical industry; an increase in the carbon tax, with the proceeds used to support low-income households; and that the government support renewable energy projects in the region.

### 8.5. THREATS TO DEMOCRACY FROM THE CLIMATE CRISIS AND POSSIBLE RESPONSES

In 2020, the police investigated two Singaporeans for allegedly participating in a public assembly without a police permit (lau 2020). The incidents occurred on 13 March and 22 March and involved an 18-year-old woman and a 20-year-old man, respectively. The woman was holding placards that read 'Planet Over Profit', 'School Strike 4 Climate', and 'ExxonMobil Kills Kittens &Puppies' outside HarbourFront Tower One. The man held up a placard that read 'SG IS Better Than Oil @fridays4futuresg' in front of the Toa Payoh Central Community Club and the Toa Payoh Neighbourhood Police Centre. In both cases, photographs were posted and circulated on social media, which led to the police seizing electronic devices including laptops and mobile phones during their investigation. Both were 'strongly

advised' by the police to take down the 'Fridays for Future Singapore' website and social media accounts (Han 2020). There is no publicly available information regarding the outcome of the investigation, including whether the two Singaporeans were charged under the Public Order Act.

On 4 October 2021, after a 10-hour debate, the Singapore Parliament passed the Foreign Interference (Countermeasures) Act 2021 (FICA). Lawyers, the opposition and civil society groups such as Climate Rally, among others, raised concerns that the proposed law would undermine civic freedom in Singapore, but it was passed without substantive amendments to address such concerns (CIVICUS Monitor 2021b). CIVICUS published an open letter from a group of concerned organizations which described FICA's provisions as 'contraven[ing] international legal and human rights principles—including the right to freedom of expression, association, participation in public affairs, and privacy' which, it stated, would 'further curtail civic space, both online and offline' (CIVICUS Monitor 2021a).

Academics have argued that FICA is too broad and threatens academic freedom (see e.g. George et al. 2021). In response, the Ministry of Home Affairs stated in a Facebook post that: 'If the professors are able to get their articles accepted in international journals, their books published by prestigious academic presses overseas, or if they receive splendid fellowships and awards from any foreign university, they will face no hindrance whatsoever from FICA—or for that matter, any other law in Singapore' (Singapore Ministry of Home Affairs 2021). The ministry also stated that the FICA would not hinder the activities of academics involved in 'foreign collaboration and online dissemination', unless they 'were acting on behalf of a foreign agency to conduct a hostile information campaign online directed against Singapore's public interest'.

It remains to be seen whether academic discussions on controversial issues in foreign journals or at foreign universities will be affected by passage of the FICA. Concerns raised in this context include FICA curtailing the 'free-flowing exchange of ideas and resources' that has contributed to the global climate youth movement and foreign research funding; and, ultimately, that it will 'leave Singapore

academia and society worse off' (George et al. 2021). The SG Climate Rally and Academic.SG are concerned that broad legislation like FICA could deter open and frank discussions about addressing climate change, particularly in respect of potentially sensitive information relevant to evaluating the effectiveness of policies.

The MP Louis Ng Kok Kwang queried whether the Ministry for the Environment and Water Resources (now the Ministry of Sustainability and the Environment) planned to publish the total amount collected by the carbon tax in respect of 2019 emissions, and whether the ministry would consider releasing a breakdown of the revenue collected from each taxable facility when the data became available. In response, the relevant minister, Masagos Zulkifli, stated that the government was 'unable to disclose company- or facility-specific data due to data confidentiality requirements as provided for in the [Carbon Pricing Act]', and because it was not 'productive or correct to actually put any company under scrutiny' (Parliament of Singapore 2020).

This response offers insight into the government's mindset and strategic relationships when it comes to addressing climate change and navigating issues such as the carbon tax—both of which involve negotiating the tension between Singapore's developmental (growth) approach and the government's efforts to tackle climate change and mitigate emissions, which it appears to manage by maintaining a fine balance between economic imperatives and sustainability goals. The government will need to prioritize meaningful dialogue and public consultation—and publicize the nature of such communications—to ensure transparency in policymaking. This will encourage members of the public and environmental NGOs to engage in socio-political discussions, where previously they might have been somewhat reticent, and thereby promote fair and inclusive political processes for managing and responding to the climate crisis.

### 8.6. SIGNIFICANCE OF THE GLASGOW OUTCOMES FOR SINGAPORE

The 26th meeting of the Conference of the Parties to the UN Framework Convention on Climate Change (COP 26), held in Glasgow

in November 2021, resulted in the completion of the Paris Agreement rulebook, including article 6 on international cooperative approaches (European Commission 2021). The article 6 mechanisms presents a significant opportunity for Singapore to advance its ambition to become a carbon services hub, as greater clarity on cross-border carbon markets will help to generate demand for associated services on a global scale (Low and Bea 2021). Furthermore, Grace Fu has committed Singapore to review its Nationally Determined Contribution in line with the Glasgow Climate Pact (Board 2021). After more than 80 countries submitted net zero targets at COP 26, Lawrence Wong announced in February 2022 that Singapore would increase its ambition to achieving net zero emissions by around midcentury. He also stated that the government would 'consult closely with industry and citizen stakeholder groups' in 2022 to finalize the date for achieving net zero (Singapore Ministry of Finance 2022).

### References

- Bea, E. J. W., Fang, M. M., Feng, J. L. Y. and Rui, T. Z., *The APCEL Guide to Singapore and ASEAN Environmental Law: Pollution Control* (Singapore: National University of Singapore and the Asia-Pacific Centre for Environmental Law, 2019), <a href="https://law.nus.edu.sg/apcel/media/the-apcel-guide-to-singapore-and-asean-environmental-law-on-climate-change-and-pollution-control-were-made-available-online">https://law.nus.edu.sg/apcel/media/the-apcel-guide-to-singapore-and-asean-environmental-law-on-climate-change-and-pollution-control-were-made-available-online</a>, accessed 19 May 2022
- Board, J., 'Singapore to review its climate change target as world leaders agree COP 26 deal', Channel News Asia, 14 November 2021, <a href="https://www.channelnewsasia.com/singapore/cop26-singapore-climate-change-target-grace-fu-2312456">https://www.channelnewsasia.com/singapore/cop26-singapore-climate-change-target-grace-fu-2312456</a>, accessed 24 February 2022
- CIVICUS Monitor, 'Singapore: Withdraw Foreign Interference (Countermeasures) Bill', Open letter, 13 October 2021a, <a href="https://www.civicus.org/index.php/media-resources/media-releases/open-letters/5342-singapore-withdraw-foreign-interference-countermeasures-bill">https://www.civicus.org/index.php/media-resources/media-releases/open-letters/5342-singapore-withdraw-foreign-interference-countermeasures-bill</a>, accessed 22 May 2022
- -, 'Singapore downgraded in global human rights report as assault on free speech continues',
   Press release, 8 December 2021b, <a href="https://findings2021.monitor.civicus.org/country-ratings/singapore.html">https://findings2021.monitor.civicus.org/country-ratings/singapore.html</a>, accessed 13 December 2021
- Climate Action SG Alliance (CASA), 'Welcome to the Climate Action SG Alliance', [n.d.], <a href="https://www.climateactionsg.org">https://www.climateactionsg.org</a>, accessed 9 December 2022
- Climate Action Tracker, 'Singapore', updated 15 September 2021, <a href="https://climateactiontracker.org/countries/singapore">https://climateactiontracker.org/countries/singapore</a>, accessed 10 July 2022
- European Commission, 'COP26: EU helps deliver outcome to keep the Paris Agreement targets alive', Press release, 13 November 2021, <a href="https://ec.europa.eu/commission/presscorner/detail/en/ip\_21\_6021">https://ec.europa.eu/commission/presscorner/detail/en/ip\_21\_6021</a>, accessed 22 May 2022
- George, C., Ian, C. J., Lim, L. and Yenn, T. Y., 'FICA's threat to Singapore academia', Academia. SG, 1 October 2021, <a href="https://www.academia.sg/editorials/fica-threat">https://www.academia.sg/editorials/fica-threat</a>, accessed 3 October 2021
- Ghangaa, M., 'Singapore's water supply: Where does it come from?', *The Straits Times*, 26 June 2018, <a href="https://www.straitstimes.com/singapore/environment/singapores-water-supply-where-does-it-come-from">https://www.straitstimes.com/singapore/environment/singapores-water-supply-where-does-it-come-from</a>, accessed 7 July 2022
- Greenwatch, 'SG climate rally, 2020', [n.d.], <a href="https://www.sgclimaterally.com/greenwatch">https://www.sgclimaterally.com/greenwatch</a>, accessed 3 October 2021
- Han, H., 'Singapore, a garden city: Authoritarian environmentalism in a developmental state', Journal of Environment and Development, 26/1 (2017), pp. 3–24, <a href="https://doi.org/10.1177/1070496516677365">https://doi.org/10.1177/1070496516677365</a>
- Han, K., 'Climate change activists test strict Singapore protest laws', Al Jazeera, 10 April 2020, <a href="https://www.aljazeera.com/news/2020/4/10/climate-change-activists-test-strict-singapore-protest-laws">https://www.aljazeera.com/news/2020/4/10/climate-change-activists-test-strict-singapore-protest-laws</a>, accessed 8 June 2022

- Ho, G., 'S'pore's revised carbon tax rate for 2024 to be announced in Budget 2022: Lawrence Wong', *The Straits Times*, 15 October 2021, <a href="https://www.straitstimes.com/singapore/politics/revised-carbon-tax-rate-for-2024-what-to-expect-till-2030-to-be-announced-in">https://www.straitstimes.com/singapore/politics/revised-carbon-tax-rate-for-2024-what-to-expect-till-2030-to-be-announced-in</a>, accessed 29 November 2021
- lau, J., 'Two Singaporeans being investigated for allegedly taking part in public assembly without a permit', *The Straits Times*, 1 April 2020, <a href="https://www.straitstimes.com/singapore/courts-crime/two-singaporeans-being-investigated-for-allegedly-taking-part-in-public">-public</a>, accessed 5 October 2021
- International IDEA, Global State of Democracy Indices: Singapore (as of 31 December 2021), <a href="https://www.idea.int/gsod-indices/countries-regions-profile?rsc=%5B830%5D">https://www.idea.int/gsod-indices/countries-regions-profile?rsc=%5B830%5D</a>, accessed 21 September 2022
- Lin, J., 'Environmental rights', NUS Law Working Paper 2020/015 and NUS Asia-Pacific Centre for Environmental Law Working Paper 20/03, May 2020, <a href="https://law.nus.edu.sg/wp-content/uploads/2020/05/015\_2020\_Jolene.pdf">https://law.nus.edu.sg/wp-content/uploads/2020/05/015\_2020\_Jolene.pdf</a>, accessed 18 May 2022
- Low, M. and Bea E., 'COP26 Article 6 outcomes: Untangling the spaghetti', ESI Policy Brief No. 50, November 2021, <a href="https://esi.nus.edu.sg/docs/default-source/esi-policy-briefs/cop26-article-6-outcomes-untangling-the-spaghetti.pdf">https://esi.nus.edu.sg/docs/default-source/esi-policy-briefs/cop26-article-6-outcomes-untangling-the-spaghetti.pdf</a>, accessed 22 May 2022
- Ministry of Foreign Affairs, Singapore, About Singapore, [n.d.], <a href="https://www.mfa.gov.sg/">https://www.mfa.gov.sg/</a> Overseas-Mission/Xiamen/About-Singapore, accessed 2 May 2023
- National Climate Change Secretariat (NCCS), 'Public consultation on climate change and Singapore', 31 March 2015, <a href="https://www.nccs.gov.sg/public-consultation/public-consultation-on-climate-change-and-singapore">https://www.nccs.gov.sg/public-consultation/public-consultation-on-climate-change-and-singapore</a>, accessed 9 December 2021
- -, 'Feedback from public on Singapore's Long-Term Low-Emissions Development Strategy', 4 March 2020a, <a href="https://www.nccs.gov.sg/public-consultation/feedback-from-public-on-singapores-long-term-low-emissions-development-strategy">https://www.nccs.gov.sg/public-consultation/feedback-from-public-on-singapores-long-term-low-emissions-development-strategy</a>, accessed 9 December 2021
- -, Strategy Group, Prime Minister's Office, 'Singapore's enhanced Nationally Determined Contribution and Long-Term Low-Emissions Development Strategy', Press Release, 28 February 2020b, <a href="https://www.nccs.gov.sg/media/press-release/singapores-enhanced-nationally-determined-contribution-and-long-term-low-emissions-development-strategy">https://www.nccs.gov.sg/media/press-release/singapores-enhanced-nationally-determined-contribution-and-long-term-low-emissions-development-strategy</a>, accessed 8 June 2022
- –, Strategy Group, Prime Minister's Office, Charting Singapore's Low-Carbon and Climate Resilient Future (2020c), <a href="https://www.nccs.gov.sg/files/docs/default-source/publications/nccsleds.pdf">https://www.nccs.gov.sg/files/docs/default-source/publications/nccsleds.pdf</a>>, accessed 8 June 2022
- –, Strategy Group, Prime Minister's Office, 'FAQs: Carbon tax', updated 13 June 2022a, <a href="https://www.nccs.gov.sg/faqs/carbon-tax">https://www.nccs.gov.sg/faqs/carbon-tax</a>, accessed 10 July 2022
- –, Strategy Group, Prime Minister's Office, 'Carbon tax', updated 13 June 2022b, <a href="https://www.nccs.gov.sg/singapores-climate-action/carbon-tax">https://www.nccs.gov.sg/singapores-climate-action/carbon-tax</a>, accessed 10 July 2022
- -, 'Singapore's emission profile', updated 13 June 2022c, <a href="https://www.nccs.gov.sg/singapores-climate-action/singapores-climate-targets/singapore-emissions-profile">https://www.nccs.gov.sg/singapores-climate-action/singapores-climate-targets/singapore-emissions-profile</a>, accessed 10 July 2022
- Parliament of Singapore, 'Collection of Carbon Tax and Release of Information for Carbon Tax Collections', Oral Answers to Questions, Masagos Zulkifli, Minister for the Environment

- and Water Resources, 13th Parliament, Session 2, Vol. 94, 3 February 2020, <a href="https://sprs.parl.gov.sg/search/#/sprs3topic?reportid=oral-answer-2114">https://sprs.gov.sg/search/#/sprs3topic?reportid=oral-answer-2114</a>, accessed 22 May 2022
- -, 'Accelerate and Deepen Efforts Against Climate Change', Motion, 14th Parliament, Session 1, Vol. 95, 1 February 2021, <a href="https://sprs.parl.gov.sg/search/#/sprs3topic?reportid=motion-1563">https://sprs.parl.gov.sg/search/#/sprs3topic?reportid=motion-1563</a>, accessed 8 June 2022
- -, 'Leader of the Opposition', updated 7 February 2022a, <a href="https://www.parliament.gov.sg/">https://www.parliament.gov.sg/</a>
   about-us/structure/leader-of-the-opposition>, accessed 17 May 2022
- -, 'Members of Parliament', updated 7 February 2022b, <a href="https://www.parliament.gov.sg/about-us/structure/members-of-parliament">https://www.parliament.gov.sg/about-us/structure/members-of-parliament</a>>, accessed 17 May 2022
- Singapore Climate Rally, 'Our demands', [n.d.], <a href="https://www.sgclimaterally.com/our-demands">https://www.sgclimaterally.com/our-demands</a>, accessed 8 June 2022
- Singapore Food Agency, 'Singapore's food supply', updated 30 June 2020, <a href="https://www.sfa.gov.sg/food-farming/singapore-food-supply/the-food-we-eat">https://www.sfa.gov.sg/food-farming/singapore-food-supply/the-food-we-eat</a>, accessed 31 May 2022
- Singapore Ministry of Finance (MOF), 'Together, a better future', Budget Speech, 11 February 2018, <a href="https://www.mof.gov.sg/docs/default-source/default-document-library/singapore-budget/budget-archives/2018/fy2018\_budget\_statement.pdf?sfvrsn=55b42e95\_2">https://www.mof.gov.sg/docs/default-source/default-document-library/singapore-budget/budget-archives/2018/fy2018\_budget\_statement.pdf?sfvrsn=55b42e95\_2</a>, accessed 8 June 2022
- --, 'Building a sustainable home for all', Budget Speech, 16 February 2021a, <a href="https://www.mof.gov.sg/singapore-budget/budget-2021">https://www.mof.gov.sg/singapore-budget/budget-2021</a>, accessed 8 June 2022
- -, 'MOF invites views and suggestions for Budget 2022', Press release, 7 December 2021b, <a href="https://www.mof.gov.sg/news-publications/press-releases/mof-invites-views-and-suggestions-for-budget-2022">https://www.mof.gov.sg/news-publications/press-releases/mof-invites-views-and-suggestions-for-budget-2022</a>, accessed 13 December 2021
- --, 'Charting our new way forward together', Budget Speech, 18 February 2022, <a href="https://www.gov.sg/article/budget-2022">https://www.gov.sg/article/budget-2022</a>, accessed 8 June 2022
- Singapore Ministry of Home Affairs, 'Academics Cherian George, Chong Ja Ian, Linda Lim and Teo You Yenn have claimed that FICA ...', Facebook, 3 October 2021, <a href="https://www.facebook.com/mhasingapore/posts/227133189447847">https://www.facebook.com/mhasingapore/posts/227133189447847</a>, accessed 4 October 2021
- Singapore Ministry of Sustainability and the Environment, 'The Resource Sustainability Act', 30 July 2020, <a href="https://www.mse.gov.sg/resource-room/category/2020-07-30-resource-sustainability-act">https://www.mse.gov.sg/resource-room/category/2020-07-30-resource-sustainability-act</a>, accessed 5 October 2021
- Singapore National Environment Agency (NEA), Singapore's Second Biennial Update Report, 2016: Under the United Nations Framework Convention on Climate Change (Singapore: NEA, 2016), <a href="https://unfccc.int/documents/180715">https://unfccc.int/documents/180715</a>>, accessed 21 May 2022
- –, 'EPM (Amendment) Bill to Mandate Measures to Mitigate HFC Emissions and Enhance Surveillance at Construction Sites for No-Work Rule', 13 September 2021, <a href="https://www.nea.gov.sg/media/news/news/index/epm-(amendment)-bill-to-mandate-measures-to-mitigate-hfc-emissions-and-enhance-surveillance-at-construction-sites-for-no-work-rule">https://www.nea.gov.sg/media/news/news/index/epm-(amendment)-bill-to-mandate-measures-to-mitigate-hfc-emissions-and-enhance-surveillance-at-construction-sites-for-no-work-rule>, accessed 29 November 2021
- -, 'Climate change: Carbon tax', updated 31 March 2022, <a href="https://www.nea.gov.sg/our-services/climate-change-energy-efficiency/climate-change/carbon-tax">https://www.nea.gov.sg/our-services/climate-change-energy-efficiency/climate-change/carbon-tax</a>, accessed 8 June 2022

- Tan, A., 'Young activists planning "green dot" gathering on Sept 21', *The Straits Times*, 13 August 2019, <a href="https://www.straitstimes.com/singapore/environment/young-activists-planning-green-dot-gathering-on-sept-21">https://www.straitstimes.com/singapore/environment/young-activists-planning-green-dot-gathering-on-sept-21</a>, accessed 4 October 2021
- --, 'Budget 2021: Govt will review carbon tax rate, which will remain at \$5 per tonne until 2023', The Straits Times, 16 February 2021a, <a href="https://www.straitstimes.com/singapore/budget-2021-government-will-review-carbon-tax-rate-which-will-remain-at-5-per-tonne-until">https://www.straitstimes.com/singapore/budget-2021-government-will-review-carbon-tax-rate-which-will-remain-at-5-per-tonne-until</a>, accessed 8 June 2022
- -, 'Analysis panning S'pore's climate targets as "critically insufficient" lacks nuance: Govt', The Straits Times, 22 September 2021b, <a href="https://www.straitstimes.com/singapore/environment/analysis-panning-spores-climate-targets-as-critically-insufficient-lacks">https://www.straitstimes.com/singapore/environment/analysis-panning-spores-climate-targets-as-critically-insufficient-lacks</a>, accessed 8 June 2022
- Tkalich, P., Verhamony, P., Luu, Q.-H. and Babu, M. T., 'Sea level trend and variability in the Singapore Strait', *Ocean Science*, 9/2 (2013), pp. 293–300, <a href="https://doi.org/10.5194/os-9-293-2013">https://doi.org/10.5194/os-9-293-2013</a>

United Nations Treaty Collection, [n.d.], <a href="https://treaties.un.org">https://treaties.un.org</a>, accessed 2 May 2023

- University of Notre Dame, Global Adaptation Initiative (ND-GAIN), 'Rankings', 2022a, <a href="https://gain.nd.edu/our-work/country-index/rankings">https://gain.nd.edu/our-work/country-index/rankings</a>, accessed 13 November 2022
- --, 'Singapore', 2022b, <a href="https://gain-new.crc.nd.edu/country/singapore">https://gain-new.crc.nd.edu/country/singapore</a>, accessed 13 November 2022
- Vietnam Investment Review, 'Singapore imports 17 million bottles of water from Malaysia monthly: Masagos', 6 November 2019, <a href="https://vir.com.vn/singapore-imports-17-million-bottles-of-water-from-malaysia-monthly-masagos-71633.html">https://vir.com.vn/singapore-imports-17-million-bottles-of-water-from-malaysia-monthly-masagos-71633.html</a>, accessed 7 July 2022
- Wong, K., 'More than 1,700 turn up at first Singapore Climate Rally', Channel News Asia, 21 September 2019, <a href="https://www.channelnewsasia.com/singapore/1700-participants-sg-climate-rally-die-in-1316636">https://www.channelnewsasia.com/singapore/1700-participants-sg-climate-rally-die-in-1316636</a>, accessed 4 October 2021

#### **LEGISLATION**

Carbon Pricing Act 2018, 2020 revised edition, <a href="https://sso.agc.gov.sg/Act/CPA2018">https://sso.agc.gov.sg/Act/CPA2018</a>, accessed 2 May 2023

Energy Conservation Act 2012

Energy Conservation (Amendment) Act 2017

**Environmental Protection and Management Act 1999** 

Foreign Interference (Countermeasures) Act 2021

Resource Sustainability Act 2019