SINGAPORE'S SECOND UPDATE OF ITS FIRST NATIONALLY DETERMINED CONTRIBUTION (NDC) AND ACCOMPANYING INFORMATION

Singapore intends to reduce emissions to around 60 million tonnes of carbon dioxide equivalent ($MtCO_2e$) in 2030 after peaking its emissions earlier[1]	
ACCOMPANYING INFORMATION[2] ON SINGAPORE'S 1ST NDC	
1. Quantifiable information on the reference point (including, as appropriate, a base year):	
(a) Reference year(s), base year(s), reference period(s) or other starting point(s);	Emissions level (in terms of CO_2e) in 2030: ≈ 60 million tonnes (Mt) CO_2e
(b) Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year;	Singapore's 2030 emissions will be demonstrated in the national greenhouse gas (GHG) inventory time series reported in its Biennial Transparency Reports.

[1] This is contingent on technological maturity and effective international cooperation. Singapore's ability to fulfil its pledge, like all Parties, will depend on the continued international commitment by Parties to the Paris Agreement and their climate pledges.

[2] The accompanying information to clarify Singapore's NDC is provided taking reference from the guidance on "Information to facilitate clarity, transparency and understanding of nationally determined contributions, referred to in decision 1/CP.21, paragraph 28" as contained in Annex 1 of decision 4/CMA.1 adopted in December 2018.

(c) For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or polices and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information;	Not applicable. Singapore's NDC is an economy-wide absolute GHG emissions limitation target.
(d) Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction;	See 1(a) above.
(e) Information on sources of data used in quantifying the reference point(s);	Not applicable. Singapore's NDC is an economy-wide absolute GHG emissions limitation target.
(f) Information on the circumstances under which the Party may update the values of the reference indicators.	Not applicable. Singapore's NDC target, which aims to peak and subsequently reduce emissions to an absolute emissions level, does not take reference from any baseline.

2. Time frames and/or periods for implementation:	
(a) Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA);	Beginning 2021 to end 2030.
(b) Whether it is a single-year or multi-year target, as applicable.	Single-year target.
3. Scope and coverage:	
(a) General description of the target;	Singapore's NDC is an economy-wide absolute GHG emissions limitation target to reduce its GHG emissions to around 60 $MtCO_2e$ in 2030 after peaking emissions earlier.
(b) Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with	Singapore's NDC is an economy-wide absolute GHG emissions limitation target. Key sectors covered: Energy, Industrial Processes and Product Use, Agriculture, Land Use, Land-Use Change and Forestry (LULUCF) and Waste.

Intergovernmental Panel on Climate Change (IPCC) guidelines;	Greenhouse gases covered: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3)[3].	
(c) How the Party has taken into consideration paragraphs 31 (c) and (d) of decision 1/CP.21;	All categories of anthropogenic emissions or removals are included and will continue to be included.	
(d) Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans.	Not applicable. Singapore will account for any mitigation co-benefits from adaptation actions and/or economic diversification as mitigation actions in accordance with the assumptions and methodological approaches indicated in Section 5 of this document.	
4. Planning processes:		
(a) Information on the planning processes that the Party undertook to prepare its nationally determined	(i) Domestic institutional arrangements, public participation	The Inter-Ministerial Committee on Climate Change (IMCCC), chaired by a Senior Minister and comprising Ministers from relevant Ministries, drives Singapore's whole-of-government efforts to develop and implement coherent and coordinated climate change

[3] NF_3 was included in the GHG coverage as part of the first update to Singapore's first NDC in 2020.

contribution and, if available, on the Party's implementation plans, including, as appropriate:	and engagement with local communities and indigenous peoples, in a gender-responsive manner;	mitigation and adaptation measures. This includes the preparation and implementation of Singapore's NDC. The NDC was prepared taking into account Singapore's national circumstances, challenges and opportunities for mitigation. Studies and technology roadmaps, developed in collaboration and consultation with industry stakeholders, academic experts and technical consultants, served as additional inputs on the potential of future technologies for long-term mitigation in Singapore. The Singapore Government also carried out stakeholder consultations, including with members of the public, to obtain feedback on possible measures to reduce carbon emissions.	
	(ii) Contextual matters, including, inter alia, as appropriate:	a. National circumstances, such as geography, climate, economy, sustainable development and poverty eradication;	Singapore's national circumstances include, inter alia, a small low-lying land area, high population density, constraints in deploying clean energy, an export-oriented economy that is highly dependent on international trade, and climate vulnerabilities. Please refer to Section 6 for more details.
		b. Best practices and experience related to the preparation of the nationally	In Singapore's experience, a key best practice for preparing an NDC is to put in place effective and pragmatic institutional arrangements to coordinate domestic climate efforts. In particular, the IMCCC's role in

		determined contribution;	closely coordinating Singapore's climate change policies from a whole-of-government perspective facilitates opportunities for optimising Singapore's climate efforts, including making possible trade-offs or synergies across the sectors. Singapore has developed a comprehensive suite of mitigation measures to achieve its NDC target which is outlined in the Singapore Green Plan 2030. To achieve the NDC target, a whole-of-nation effort is needed. As part of the Singapore Green Plan 2030, the Singapore Government will continue to engage stakeholders (including businesses, civil society, youths, schools, and the research community) to co-create and co-deliver solutions, amplify awareness, and encourage a whole-of-nation effort to address climate change. The Singapore Government believes that setting out Singapore's climate policy aspirations and strategies well in advance will help provide a clear sense of direction, minimise disruptions to the economy and

			workforce, and keep Singapore competitive in a carbon-constrained world. Apart from the Singapore Green Plan 2030, Singapore's climate strategies are reflected, inter alia, in the *National Climate Change Strategy 2012*, the *Sustainable Singapore Blueprint 2015*, *Singapore's Climate Action Plan: Take Action Today, for a Sustainable Future* (published in 2016), *Charting Singapore's Low-Carbon and Climate Resilient Future* (published in 2020 and updated in 2022), and various sectoral roadmaps and masterplans published by the respective government agencies.
		c. Other contextual aspirations and priorities acknowledged when joining the Paris Agreement;	Singapore recognises the need for sustainable development in the economic, social and environmental dimensions, and is a strong supporter of the 2030 Agenda for Sustainable Development, and the Rio Conventions on Biodiversity, Climate Change, and Desertification.
(b) Specific information applicable to Parties, including regional economic	Not applicable. Singapore is not part of any joint fulfilment agreement under Article 4, paragraph 2 of the Paris Agreement.		

integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement;		
(c) How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement;	The first global stocktake will take place in 2023. Singapore participated in the Talanoa Dialogue in 2018, which generated political momentum for enhanced climate action, including calling for Parties to update their NDCs. The preparation of Singapore's second update of its first NDC was informed by the recommendations of the Talanoa Call for Action, and scientific literature such as the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report, taking into account Singapore's national circumstances.	
(d) Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action	(i) How the economic and social consequences of response measures have been	Not applicable. Please refer to Section 3(d) above.

and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	considered in developing the nationally determined contribution;	
	(ii) Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and	Not applicable. Please refer to Section 3(d) above as well as to Singapore's first Adaptation Communications, which is submitted as a component of its 5th National Communication, Chapter 4 on "Vulnerability and Adaptation Measures".

	forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries.	
5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:		
(a) Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's	Singapore will account for its anthropogenic GHG emissions and removals using the *2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories*, *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* and *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands* (collectively, the "2006 IPCC Guidelines"), specifically, by way of the Sectoral approach.	

nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA;	
(b) Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution;	See 5(a) above. Singapore will also apply specific assumptions and methodologies, where relevant, when accounting for progress of various policies and measures in its Biennial Update Report or Biennial Transparency Report.
(c) If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate;	See 5(a) above.

(d) IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals;	Singapore's emissions for CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3 will be derived using the 2006 IPCC Guidelines, via the Sectoral approach. The Tier 1 methodology will be used for most emissions estimates. Higher tier methodology will be used, where relevant and depending on availability of data. The aggregation of GHG emissions and removals will be reported using the 100-year time-horizon global warming potential (GWP) values from the *IPCC Fifth Assessment Report*.[4]	
(e) Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	Singapore will account for reporting of GHG emissions and removals from the LULUCF sector in accordance with the *2006 IPCC Guidelines*, up to Tier 3 level where available and covering all prescribed land-use categories and all carbon pools. The *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands* will also be incorporated. Singapore will continue to enhance and streamline its methodologies as well as incorporate new technology where relevant and applicable.	
	(i) Approach to addressing emissions and subsequent removals from natural disturbances on managed lands;	GHG emissions and removals from natural disturbances, if any, will be accounted for in accordance with the prescribed *2006 IPCC Guidelines*, coupled with field inventory measurements where applicable.

[4] This methodological update was included as part of the first update to Singapore's first NDC in 2020. Previously, Singapore's first NDC applied the GWPs from the *IPCC Second Assessment Report*.

	(ii) Approach used to account for emissions and removals from harvested wood products;	Not applicable. There is no timber industry in Singapore. Hence, Singapore at present has no GHG emissions and removals from harvested wood products.
	(iii) Approach used to address the effects of age-class structure in forests;	Singapore will estimate GHG emissions and removals in the LULUCF sector with up to Tier 3 approaches where feasible, and apply very high-resolution satellite images, coupled with collection of country-specific data resulting from field inventory measurements undertaken at regular intervals and estimated by modelling approaches. The field measurements will take into consideration tree growth information across the range of tree species and diameter classes.
(f) Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:	(i) How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed,	To develop the NDC, extensive technical studies were undertaken, including an assessment of Singapore's economy-wide mitigation potential. These take into account Singapore's national circumstances and challenges (as outlined in Section 6 below). Studies and technology roadmaps developed in collaboration with industry stakeholders, academic experts and technical consultants, served as additional inputs on the potential of future technologies for long-term mitigation in Singapore. Stakeholder consultations were also carried out to obtain feedback on possible measures to reduce carbon emissions.

	including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	
	(ii) For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable;	Not applicable. The scope and coverage of Singapore's NDC, as indicated in Section 3(b) above, do not contain non-GHG components.
	(iii) For climate forcers included in nationally	Not applicable. The scope and coverage of Singapore's NDC, as indicated in Section 3(b) above, do not include climate forcers not covered by IPCC guidelines.

	determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	
	(iv) Further technical information, as necessary;	Nil.
(g) The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.	Singapore intends to achieve the mitigation objectives under its NDC primarily through domestic emissions reduction. It will also pursue opportunities to leverage international cooperation under Article 6 of the Paris Agreement. This includes the use of internationally transferred mitigation outcomes (ITMOs), guided by Decision 2/CMA.3 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, as well as the need to ensure environmental integrity.	
6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:		
(a) How the Party considers that its nationally determined contribution is	The second update of Singapore's first NDC and the accompanying information reflect Singapore's commitment under the Paris Agreement in support of the multilateral framework of cooperation to address climate change.	

fair and ambitious in the light of its national circumstances;	In response to the Glasgow Climate Pact's request for Parties to revisit and strengthen the 2030 targets in their NDCs as necessary to align with the Paris Agreement temperature goal, and in support of the objectives of Article 2, paragraph 1(a), and Article 4 of the Paris Agreement, Singapore's second update of its first NDC builds on the enhancements of the first update in 2020, and has been updated with a more ambitious goal to reduce emissions to around 60 $MtCO_2e$ in 2030 after peaking emissions earlier. This will entail more stringent emissions reduction efforts than previously targeted in the first update. This is a challenging and ambitious target given Singapore's national circumstances. Nevertheless, Singapore will press ahead with this ambitious goal to do its part in the global effort to address climate change. Consideration of the fairness and ambition of Singapore's NDC must take into account the following: a) <u>Singapore has taken ambitious early actions</u>. Singapore made early policy choices that reduced its GHG emissions, for example, by switching from fuel oil to natural gas – the cleanest form of fossil fuel – for power generation. In 2021, about 95% of its electricity was generated from natural gas, compared to 18% in 2000. There is no subsidy for electricity, to ensure that households and businesses use energy judiciously. Singapore was also the first country to impose a vehicle quota system to cap vehicle growth, and the only country to set a zero-growth rate for cars and motorcycles. These policy choices provide Singapore with a good foundation to achieve further decarbonisation; b) <u>Singapore is alternative energy disadvantaged</u>. Singapore's urban density and limited land area (733.1 km^2), relatively flat land, low wind speeds and lack of high-quality hydrothermal resources present serious difficulties in pursuing alternative

	energy options. Its limited land resources also make it challenging to deploy solar power on a large scale. Given Singapore's small land area and high population density, current nuclear fission technologies are not suitable for deployment in Singapore. Singapore is monitoring newer technologies and will assess their suitability for deployment. Such circumstances are recognised under Article 4, paragraph 10 of the Convention; c) Singapore has one of the highest population densities globally. Singapore has one of the highest population densities in the world (7,485 persons per km^2). In addition, as a low-lying island state of 733.1 km^2 with no natural resources, Singapore has to accommodate not only housing and commercial centres, but also power plants, reservoirs, air/seaports and industries within its city boundaries. The limited land space and high urban density mean that there is limited scope for solar photovoltaics (PV) deployment and for Singapore's forests to be a significant carbon sink; d) Singapore is a very open economy and is dependent on the global supply chain for food and energy. As one of the most globalised economies and a trading nation with no natural resources, Singapore is heavily dependent on the global supply chain for its food and energy. Its economic activity and emissions are also highly sensitive to the volatility of regional and global developments and escalating climate impacts. These challenges mean that Singapore's climate strategies have to respond to international developments that may affect its economy, water, food, and energy, including preparing Singapore to be more climate resilient; e) Singapore is dependent on effective international cooperation for the success of its decarbonisation measures. Collaboration with other countries, such as on clean energy technologies, regional power grids, clean energy trade, and carbon storage

	opportunities will be essential to Singapore. The ability for Singapore to achieve its decarbonisation targets will be contingent on such effective international cooperation and early maturity of decarbonisation technologies; f) Singapore is one of the top performers for carbon intensity globally. While Singapore's share of the global GDP is small at 0.4%, as an advanced manufacturing hub it plays a key role to meet the demands of the region and the world, accounting for 2.1% of the world's total merchandise exports.[5] Energy efficiency is a key strategy for emissions reduction and Singapore aims to produce goods in an energy- and carbon-efficient manner. As energy is not subsidised in Singapore, companies are incentivised to use energy judiciously and embrace new energy efficient technologies. Strong pollution control laws also encourage industries to switch to cleaner fuel sources such as natural gas. The Singapore Government facilitates the adoption of energy efficiency and emissions reduction technologies through grants and other policy tools to overcome high upfront capital investments and other non-market barriers. Singapore is already among the 20 best-performing countries in terms of emissions intensity.[6] This reflects the substantial early action Singapore has taken to grow in an environmentally responsible way. This provides Singapore with a strong foundation to continue to strive for sustainable growth. Singapore is continuing to invest significantly in research and development to harness the potential of low-carbon technologies and explore effective international cooperation; g) Singapore is pushing ahead on solar deployment despite constraints. Singapore is pushing ahead to spur the deployment of solar PV through continued investment in research, development, and demonstration (RD&D) to reduce cost, improve

[5] Source: World Trade Organization, Trade Profiles 2022 – Singapore.
[6] Source: International Energy Agency (IEA), World CO_2 Indicators (2022).

	efficiency and enable innovative modes of deployment such as floating, offshore, and building-integrated PV. Singapore has achieved its 2020 solar target of 350 megawatt-peak (MWp), and aims to achieve at least 2 gigawatt-peak (GWp) by 2030. This will contribute around 3% of Singapore's total electricity demand in 2030. Singapore is also deploying Energy Storage System (ESS) with 200MWh of energy storage capacity and 200MW of discharge capacity, to enhance the resilience of its energy supply and power grid. While this level of renewable energy cannot match those of countries with abundant land for solar PV deployment and access to alternative energy resources, Singapore's context and constraints must be taken into account. 2 GWp of solar would require between 10 and 20 km^2 of space, out of Singapore's land area of 733.1 km^2; h) Singapore is undertaking concrete implementation efforts. Singapore's carbon tax, the first in Southeast Asia, came into effect in 2019. The carbon tax is applied to direct emissions from facilities producing 25 ktCO_2e or more of GHG emissions in a year, without exemption. This covers 80% of Singapore's carbon emissions and provides an economy-wide price signal to incentivise emissions reductions, supports other mitigation measures, and facilitates transition to a low-carbon economy. In February 2022, Singapore announced its intention to raise the carbon tax progressively to around S$50 to S$80 (~US$36.90 to US$59.00) per tCO_2e by 2030. Singapore is also implementing concrete measures within the various sectors: a. For example, for the transport sector, Singapore is taking steps to make public and shared transport, and active mobility the preferred mode of travel; phase out internal combustion engine vehicles by 2040 and promote the adoption of

	cleaner and greener vehicles such as electric vehicles; and enhance the environmental friendliness of its transport infrastructure. b. For the buildings sector, Singapore has raised the minimum energy performance standards for new buildings and existing buildings undergoing retrofitting, and enhanced funding for the Green Buildings Innovation Cluster programme, which supports the research, development and demonstration of energy-efficient technologies. c. For industry, Singapore has enhanced its grant schemes to help individual companies reduce their emissions. The Singapore Economic Development Board (EDB) has also released the Sustainable Jurong Island report which details the Government's plans to transform Jurong Island into a Sustainable Energy and Chemicals Park; i) Singapore is supporting businesses and households in adopting low-carbon practices. The Government has put in place support programmes to minimise the impact of the low-carbon transition. By 2022, about 70,000 households have registered for the Climate-Friendly Household Package which subsidises the upfront cost of switching to energy-efficient appliances; j) Singapore's climate vulnerabilities will require comprehensive adaptation efforts. As a small, low-lying island state, Singapore needs to pursue a comprehensive adaptation programme to protect its coasts, low-lying areas and communities (for details of Singapore's adaptation vulnerabilities and strategies, see Singapore's first Adaptation Communications, which is submitted as a component of its 5th National Communication, Chapter 4 on "Vulnerability and Adaptation Measures"). These adaptation actions will impose significant costs for the Singapore Government and people; and

	k) Singapore is working actively to foster effective international cooperation on climate action, and to support other developing countries in their efforts to build capacity for climate efforts. Singapore has played an active role to support the multilateral framework of cooperation on climate change under the UNFCCC, including co-facilitating the negotiations at COP-26 that finalised the Paris Agreement Article 6 rulebook. Singapore also collaborates actively with international partners, such as the UNFCCC, the UN Development Programme (UNDP), the UN Environment Programme (UNEP), ASEAN, and city-networks such as the C40, on sharing of best practices and experiences on climate change and green growth issues. To date, close to 150,000 officials from fellow developing countries have participated in capacity-building programmes conducted under the Singapore Cooperation Programme (SCP) in key areas such as sustainable development, urban planning, water, and transport management. Singapore launched a dedicated Climate Action Package under the SCP in 2018, to offer capacity-building support in areas such as climate change adaptation and mitigation strategies, flood management, disaster risk reduction, and green finance. The CAP runs until March 2023 and will be succeeded by a three-year Sustainability Action Package (SAP). The SAP will give greater focus to the global sustainability agenda and support capacity-building in areas including strategies to build resilience for water resources and food security, managing and financing green projects, developing sustainable infrastructure, and managing carbon markets. Singapore will continue to deepen and broaden its technical cooperation programmes with other developing countries.
(b) Fairness considerations, including reflecting on equity;	Even though Singapore accounts for only 0.1% of global emissions and has limited options to deploy renewable energy at scale, Singapore's second update of its first NDC targets to reduce emissions to around 60 $MtCO_2e$ after peaking earlier. This represents Singapore's

	commitment do its part in the global effort to address the global climate crisis and steward its resources for future generations.
(c) How the Party has addressed Article 4, paragraph 3, of the Paris Agreement;	Singapore's second update of its first NDC builds on the enhancements in the first update in 2020. It has been updated with a more ambitious goal to reduce emissions to around 60 $MtCO_2e$ in 2030 after peaking emissions earlier. This will entail more stringent emissions reductions efforts than previously targeted in the first update. This is a challenging and ambitious target given Singapore's national circumstances.
(d) How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;	Singapore's NDC is an economy-wide absolute GHG emissions limitation target, which reflects its effort as a developing country Party to address Article 4, paragraph 4, of the Paris Agreement.
(e) How the Party has addressed Article 4, paragraph 6, of the Paris Agreement.	Singapore's NDC is an economy-wide absolute GHG emissions limitation target.
7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:	
(a) How the nationally determined contribution contributes towards achieving the objective of	Singapore's target to reduce emissions to around 60 $MtCO_2e$ in 2030 after peaking emissions earlier is an important milestone, in line with the objectives of the Paris Agreement. In addition, Singapore will also aim to achieve net zero emissions by 2050, as outlined in *Charting Singapore's Low-Carbon and Climate Resilient Future* (published in

the Convention as set out in its Article 2;	2020 and updated in 2022). The combination of Singapore's 2030 NDC and 2050 net zero target will contribute towards achieving the objective set out in Article 2 of the Convention. Given its unique national circumstances and particular set of challenges, Singapore's NDC is challenging and ambitious, and aims to support the collective effort to reach global peaking of GHG emissions as soon as possible, as set out in Article 4, paragraph 1, of the Paris Agreement.
(b) How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement.	

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ANNEX

ACCOMPANYING INFORMATION ON SINGAPORE'S ADAPTATION EFFORTS

To ensure that current and future generations continue to thrive in a low-carbon and resource-constrained future, Singapore has taken decisive steps to strengthen its climate, resource, and economic resilience. Given the complexity and challenges in adaptation planning, Singapore has integrated long-term adaptation planning into national policies. This will result in measures that will entail significant costs for the Singapore Government and people but will support global climate action.

For comprehensive information on Singapore's adaptation efforts, please refer to Singapore's first Adaptation Communication, which is submitted as a component of its 5th National Communication, Chapter 4 on "Vulnerability and Adaptation Measures", pursuant to the Paris Agreement, and prepared taking into account Decision 9/CMA.1.

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