

Table 1. ASEAN+3, EU, and US: Climate-Related Pledges, Roadmaps, and Financing

Economy	Adaptation Efforts (Response to physical risks)		Mitigation Efforts (Response to physical and transition risks)				Enabling Guidelines and Regulations for Climate Resilience (Specific to the financial system)						
	National Strategy or Roadmap	Estimated Financing Needs	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Key Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-related Financial Disclosure Standards
Brunei Darussalam	• National Adaptation Plan (under development)	• USD 0.022 billion (0.2 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP)	• Reduce GHG emissions by 20 percent relative to BAU level in 2030 (Dec 2020)	• Net zero by 2050		• National Climate Change Policy (Jul 2020)	• Transition away from unabated coal power generation in the 2030s (or as soon as possible thereafter), such as by ceasing issuance of new permits and new construction of unabated coal-fired power generation projects • End new direct government support for new unabated coal-fired power generation projects and strengthen domestic and international efforts to provide a robust framework for a just and inclusive transition to clean energy • Implement energy efficiency standards and labelling scheme (Jun 2022) • Release Directive on Mandatory Reporting on Greenhouse Gases (Apr 2023)			Financial institutions			
										Non-financial corporates			
Cambodia	• National Adaptation Plan (submitted to the UNFCCC in Oct 2021)	• USD 0.6 billion (2.6 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) • USD 2 billion through 2030 based on the updated NDC (Dec 2020)	• Reduce GHG emissions by 41.7 percent relative to BAU level in 2030 (target mostly conditional on international support) (Dec 2020)	• Carbon neutrality by 2050	• Over USD 5.8 billion through 2030 based on the updated NDC (Dec 2020)	• National REDD+ Strategy 2017–2026 (May 2017) • NDC Roadmap (2019) • Circular Economy Strategy and Action Plan (Jun 2021) • Long-Term Strategy for Carbon Neutrality (Dec 2021) • National Cooling Action Plan (Mar 2023)	• Ban development of new coal generation capacity beyond the already committed projects as of 2019		• Cambodian Sustainable Finance Principles Implementation Guidelines (Feb 2019)	Financial institutions			
										Non-financial corporates			
China	• National Climate Change Adaptation Strategy 2035 (Jun 2022)	• USD 78.4 billion (0.5 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP)	• Reduce carbon intensity (carbon dioxide emissions per unit of GDP) by over 65 percent relative to 2005 level in 2030, and achieve peak carbon dioxide emissions before 2030 (Oct 2021) • Reduce energy consumption per unit of GDP by 13.5 percent by 2025 compared to 2020, building on the 7.3 percent reduction at end-2023 (May 2024)	• Carbon neutrality before 2060	• USD 291 billion in annual investments between 2020–50 • USD 14.4–19.9 trillion of energy system investments between 2020–50	• Mid-Century Long-Term Low Greenhouse Gas Emission Development Strategy (Oct 2021) • 1+N Framework (Nov 2021) • 14th Five-Year-Plan—Workplan for Energy saving and Emission reduction 2021–2025 (Jan 2022) • Green and Low-Carbon Transformation Industry Guidance Catalogue (Feb 2024) • Action Plan for Energy Saving and Carbon Reduction for 2023–25 (May 2024) • Sector roadmaps: • National Hydrogen Development Plan (Mar 2022) • 14th Five-Year-Plan—Modern	• Accelerate the pace of coal reduction during the 14th Five-Year Plan period (2021–25) • Stop building new coal-fired power projects abroad • Offer financial incentives for renewable energy adoption by firms • Encourage adoption of electric vehicles via subsidies and infrastructure development • Establish national ETS (Jan 2021) • Launch the China Certified Emission Reduction (CCER) program (Jan 2024), which expands the coverage of the existing ETS beyond enterprises with designated emission quotas to companies within specific sectors that have	• Electric Power Law (Dec 2018) • Carbon Allowance Trading Regulations , a legal framework for the operation of China's carbon credit market and ensure the effectiveness of related policies (issued in Feb 2024, effective May 2024)	• Green Bond Endorsed Projects Catalogue (Apr 2021)	Financial institutions	• Guidelines for Green Finance in the Banking and Insurance Industry (Jun 2022)		
										Non-financial corporates	• New Green Catalogue (Jun 2020) • Common Ground Taxonomy-Climate Change Mitigation (Nov 2021)	• Administrative Measures for Legal Disclosure of Enterprise Environmental Information (Dec 2021)	

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						<ul style="list-style-type: none"> Energy System Planning (Mar 2022) Methane Emissions Control Action Plan (Nov 2023) 	voluntary emission reduction initiatives						
Hong Kong, China	<ul style="list-style-type: none"> Hong Kong's Climate Action Plan 2050 (Oct 2021) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Reduce carbon intensity by 65–70 percent relative to 2005 level in 2030 (equivalent to an absolute carbon emission reduction of 26–36 percent) (Oct 2021) 	<ul style="list-style-type: none"> Carbon neutrality before 2050 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Climate Action Plan 2050 (Oct 2021) Climate Change Framework for Built Environment (Jun 2023) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Roadmap on Popularisation of Electric Vehicles (Mar 2021) Clean Air Plan for Hong Kong 2035 (Jun 2021) 	<ul style="list-style-type: none"> Phase out coal as a power generation source by 2035 Develop renewable energy projects Encourage adoption of electric vehicles via tax incentives and charging deployment Allocate HKD 240 billion to combat climate change in the next 15 to 20 years Introduce the Buildings Energy Efficiency Ordinance to reduce electricity consumption of commercial and residential buildings (Jul 2022) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Strategic Framework for Green Finance (Sep 2018) White Paper on Green and Sustainable Banking (Jun 2020) Green Bond Framework (Feb 2022) 	Financial institutions	<ul style="list-style-type: none"> Prototype of a Green Classification Framework for Hong Kong (May 2023) Hong Kong Taxonomy for Sustainable Finance (May 2024) 	<ul style="list-style-type: none"> Climate Risk Measurement (Dec 2022) Physical Risk Assessment Platform (May 2024) 	<ul style="list-style-type: none"> Publication of Conclusions on Climate Disclosure Requirements for Listed Companies (Apr 2024)
										Non-financial corporates	<ul style="list-style-type: none"> Hong Kong Taxonomy for Sustainable Finance (May 2024) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Publication of Conclusions on Climate Disclosure Requirements for Listed Companies (Apr 2024)
Indonesia	<ul style="list-style-type: none"> National Adaptation Plan (Dec 2019) Indonesia's Adaptation Communication (Oct 2022) 	<ul style="list-style-type: none"> USD 9.9 billion (1.0 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 31.89 percent relative to BAU level in 2030, or by 43.20 percent conditional on international financial and technical support (Sep 2022) 	<ul style="list-style-type: none"> Net zero by 2060 or sooner 	<ul style="list-style-type: none"> USD 20 billion in annual investments between 2020–50 USD 1.0–1.4 trillion of energy system investments between 2020–50 	<ul style="list-style-type: none"> Long-Term Strategy for Low Carbon and Climate Resilience 2050 (Jul 2021) Green Recovery Roadmap 2021–24 (Sep 2021) NDC Roadmap (Sep 2022) FOLU Net Sink 2030 (May 2023) 	<ul style="list-style-type: none"> Phase out unabated coal power generation in the 2040s (or as soon as possible thereafter) Reduce share of coal in the power generation mix to 38 percent by 2050 (from 59 percent in 2019) Encourage adoption of electric vehicles via subsidies Raise the mandatory blending ratio for biodiesel to 35 percent from 30 percent (Feb 2023), with a plan to increase to 40 percent in the future Enact a law to implement a carbon tax under a "cap-and-tax" scheme that is projected to be implemented by 2025 (Oct 2021) Launch carbon trading on the Indonesia Stock Exchange (Sep 2023), following the first phase of carbon trading for state-owned coal power plants (Feb 2023) 	<ul style="list-style-type: none"> Tax Regulation Harmonization Law (Oct 2021) 	<ul style="list-style-type: none"> Indonesia Climate Change Trust Fund (2009) Green Bond and Green Sukuk Framework (2018) SDG Indonesia One (2018) Indonesia Environment Fund (2019) Indonesia Integrated National Financing Framework (INFF) (2022) 	Financial institutions	<ul style="list-style-type: none"> Indonesia Taxonomy for Sustainable Finance (Feb 2024) 	<ul style="list-style-type: none"> Climate Risk Management & Scenario Analysis (CRMS) (Mar 2024) 	<ul style="list-style-type: none">
										Non-financial corporates	<ul style="list-style-type: none"> Indonesia Taxonomy for Sustainable Finance (Feb 2024) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Japan	<ul style="list-style-type: none"> Climate Change Adaptation Plan (Oct 2021) 	<ul style="list-style-type: none"> USD 16.5 billion (0.4 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 46 percent in FY2030 relative to FY2013 level (FY ends on March 31 of the following year) (Oct 2021) 	<ul style="list-style-type: none"> Net zero by 2050 	<ul style="list-style-type: none"> USD 10 trillion in investments between 2020–50 USD 2.0–2.7 trillion of energy system investments between 2020–50 	<ul style="list-style-type: none"> 6th Strategic Energy Plan (Oct 2021) Long-Term Strategy under the Paris Agreement (Oct 2021) GX Basic Plan (Feb 2023) Strategy for Promoting the Transition to a 	<ul style="list-style-type: none"> Issue new fuel economy standards for passenger vehicles starting in model year 2030 (Jun 2019) Reduce the share of coal in the power supply to 19 percent by 2030 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Basic Guidelines on Climate Transition Finance (May 2021) Bank of Japan's Strategy on Climate Change (Jul 2021) Green Bond and Sustainability-Linked Bond Guidelines (Jul 2022) 	Financial institutions	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Release of "Climate-Related Scenario Analysis - Next Step in the Banking Sector" (May 2024) 	<ul style="list-style-type: none"> Basic Guidelines for Disclosure and Evaluation of Climate-Related Opportunities (Mar 2023) Bank of Japan's Climate Change Initiatives: Disclosure Based on TCFD Recommendations (May 2024)

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	National Strategy or Roadmap	Estimated Financing Needs	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Key Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-related Financial Disclosure Standards
						<ul style="list-style-type: none"> Decarbonized Growth-Oriented Economic Structure (GX Promotion Strategy) (Jul 2023) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Green Growth Strategy (Jun 2021) Roadmap for Carbon Recycling Technologies (Jul 2021) Basic Hydrogen Strategy (Jun 2023) 	<ul style="list-style-type: none"> Encourage adoption of electric vehicles via subsidies Introduce financial incentives (tax breaks, feed-in-tariffs) to encourage renewable energy deployment Restart nuclear power fleet (Dec 2022) Considering national ETS, after implementing regional ETSs in 2010–11 Considering new surcharge on industries that are major GHG-emitters 		<ul style="list-style-type: none"> Climate Transition Bond Framework (Nov 2023) 	Non-financial corporates			<ul style="list-style-type: none"> Basic Guidelines for Disclosure and Evaluation of Climate-Related Opportunities (Mar 2023)
Korea	<ul style="list-style-type: none"> Third National Climate Change Adaptation Plan (Dec 2020) 	<ul style="list-style-type: none"> USD 6.1 billion (0.4 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 40 percent relative to 2018 level in 2030 (Dec 2021) 	<ul style="list-style-type: none"> Carbon neutrality by 2050 	<ul style="list-style-type: none"> USD 1.3–1.8 trillion of energy system investments between 2020–50 	<ul style="list-style-type: none"> Korean New Deal (Jul 2020) 2050 Carbon Neutral Strategy (Dec 2020) 2050 Carbon Neutral Scenario (Oct 2021) 2050 Climate Neutrality Roadmap for Korea: K-Map Scenario (Feb 2022) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Hydrogen Economy Roadmap (Jan 2019) Third Energy Master Plan (2021) 	<ul style="list-style-type: none"> Phase out unabated coal power generation by 2050; stop issuing permits for new unabated coal-fired power generation projects Lower reliance on fossil fuel imports to under 70 percent by 2030 Introduce energy efficiency standards and financial incentives for energy saving technologies Encourage adoption of electric vehicles via subsidies Introduce Emissions Trading Scheme (K-ETS) (Jan 2015) 		<ul style="list-style-type: none"> Korean Green Bond Guideline (Dec 2020) 	Financial institutions	<ul style="list-style-type: none"> K-Taxonomy Guideline (Dec 2021) Conducted pilot project for K-Taxonomy (Dec 2022) 	<ul style="list-style-type: none"> Introduce guideline on the management of climate risks in the financial sector (Dec 2021) 	<ul style="list-style-type: none"> Exposure Draft of the 'Korean Sustainability Disclosure Standards (May 2024)
										Non-financial corporates	<ul style="list-style-type: none"> K-Taxonomy Guideline (Dec 2021) Conducted pilot project for K-Taxonomy (Dec 2022) 		<ul style="list-style-type: none"> Exposure Draft of the 'Korean Sustainability Disclosure Standards (May 2024)
Lao PDR	<ul style="list-style-type: none"> National Adaptation Plan (under development) 	<ul style="list-style-type: none"> USD 0.3 billion (1.4 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 60 percent relative to baseline level in 2030 (or by around 62.0 MtCO₂e), and by an additional 45.7 MtCO₂e conditional on increased financial support from advanced economies (May 2021) 	<ul style="list-style-type: none"> Net zero by 2050 		<ul style="list-style-type: none"> Long-Term Low Emission Development Strategy (under development) National Strategy on Climate Change (Apr 2021) 		<ul style="list-style-type: none"> Decree on Climate Change (Sep 2019) 	<ul style="list-style-type: none"> The Bank of the Lao PDR to develop a sustainable finance policy framework, with the support from the IFC (Dec 2023) 	Financial institutions			
										Non-financial corporates			
Malaysia	<ul style="list-style-type: none"> National Adaptation Plan (under development) Specific initiatives: MYR 15 billion Flood Mitigation Plan until 2030 Increased annual transfers to state governments for biodiversity conservation to MYR 150 million in 2023 from MYR 70 million in 2022 	<ul style="list-style-type: none"> USD 2.4 billion (0.7 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG intensity (emissions per unit of GDP) by 45 percent relative to 2005 level in 2030 (Jul 2021) 	<ul style="list-style-type: none"> Net zero by 2050 at the earliest 	<ul style="list-style-type: none"> USD 3 billion in annual investments between 2020–50 Increase investments to USD 375–415 billion from the current USD 159 billion to expand renewable energy capacity USD 500–700 billion of energy system investments between 2020–50 	<ul style="list-style-type: none"> Long-term Low Emission Development Strategies (LT-LEDS) (under development) NDC Roadmap (under development) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Low Carbon Mobility Blueprint (2020) National Low Carbon Cities Masterplan (2021) National Energy Policy 2022–2040 (Sep 2022) National Energy Transition Roadmap (Aug 2023) 	<ul style="list-style-type: none"> Halt construction of new coal-fired power plants from 2040, increase share of renewable energy in power generation Encourage adoption of electric vehicles via tax breaks/exemptions Introduce sustainable technology financing schemes for SMEs and other businesses Launch Bursa Carbon Exchange voluntary carbon market (Dec 2022) 	<ul style="list-style-type: none"> Climate Change bill to be tabled in 2025 	<ul style="list-style-type: none"> Sustainable and Responsible Investment Sukuk Framework (Aug 2014) Sustainable and Responsible Investment linked (SRI-linked) Sukuk Framework (Jun 2022) Transition Finance Framework (under development) 	Financial institutions	<ul style="list-style-type: none"> Climate Change and Principle-Based Taxonomy (Apr 2021) 	<ul style="list-style-type: none"> 2024 Climate Risk Stress Testing Exercise: Discussion Paper (Jun 2022) Climate Risk Management and Scenario Analysis (Nov 2022) 	<ul style="list-style-type: none"> TCFD Application Guide for Malaysian Financial Institutions (Jun 2022)
										Non-financial corporates	<ul style="list-style-type: none"> Principles-Based Sustainable and Responsible Investment Taxonomy for the Malaysian Capital Market (Dec 2022) 		<ul style="list-style-type: none"> Simplified ESG Disclosure Guide (Oct 2023)

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	National Strategy or Roadmap	Estimated Financing Needs	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Key Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-related Financial Disclosure Standards
Myanmar	<ul style="list-style-type: none"> National Adaptation Plan (under development) Myanmar Climate Change Master Plan 2018–2030 (2019) Myanmar Climate Change Policy (2019) 	<ul style="list-style-type: none"> USD 1.2 billion (1.9 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce carbon dioxide emissions by 244.5 MtCO₂e in 2030, and by an additional 170.3 MtCO₂e conditional on international financial and technical support (Jul 2021) 	<ul style="list-style-type: none"> Net zero emissions from forestry and other land use by 2040 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> National Environmental Policy (2019) Myanmar Climate Change Policy (2019) Myanmar Climate Change Strategy 2018–2030 (2019) Myanmar Climate Change Master Plan 2018–2030 (2019) 	<ul style="list-style-type: none"> Decrease the share of coal in the electricity generation mix by 73.5 percent (from 7940MW to 2120MW) by 2030 Increase total share of renewable energy (solar and wind) to 53.5 percent (from 2000MW to 3070MW) by 2030 	<ul style="list-style-type: none"> Environmental Conservation Law (2012) Environmental Conservation Rules (2014) 	<ul style="list-style-type: none"> 	Financial institutions			
										Non-financial corporates			
Philippines	<ul style="list-style-type: none"> National Climate Change Action Plan 2011–28 (Nov 2011) Philippine Development Plan 2023–2028 (Dec 2022) National Adaptation Plan 2023–2050 (Dec 2023) 	<ul style="list-style-type: none"> USD 4.6 billion (1.3 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce cumulative GHG emissions by 2.71 percent between 2020–30 compared to the projected cumulative BAU level, and by an additional 72.29 percent conditional on international financial and technical support (Apr 2021) 	<ul style="list-style-type: none"> No net zero target 	<ul style="list-style-type: none"> USD 200–300 billion of energy system investments between 2020–50 	<ul style="list-style-type: none"> National Framework Strategy on Climate Change 2010–2022 (2010) National Climate Change Action Plan 2011–2028 (2011) Philippine Energy Plan 2020–2040 (2020) 	<ul style="list-style-type: none"> Ban new coal-fired power plants starting in October 2020 Phase out unabated coal power generation in the 2040s (or as soon as possible thereafter) Promote energy efficiency and conservation via campaigns and implementation of energy usage standards 	<ul style="list-style-type: none"> People's Survival Fund (2012) Energy Efficiency and Conservation Act (Apr 2019) Renewable Energy Act (amended in Nov 2022) 	<ul style="list-style-type: none"> Sustainable Finance Framework for Banks (Apr 2020) National Government Sustainable Finance Framework (Nov 2021) Philippine Sustainable Finance Roadmap and Guiding Principles (Feb 2022) 	Financial institutions	<ul style="list-style-type: none"> SEC Guidelines for Broad Categories of Eligible Projects for Green Bonds (Aug 2018) SEC Guidelines for Broad Categories of Eligible Projects for Social Bonds (Apr 2019) SEC Guidelines for Broad Categories of Eligible Projects for Sustainability Bonds (Apr 2019) Sustainable Taxonomy Guidelines (Feb 2024) 	<ul style="list-style-type: none"> Environmental and Social Risk Management Framework (Oct 2021) Guidelines on the Integration of Sustainability Principles in Investment Activities of Banks (Aug 2022) Guidance on the Implementation of the Environmental and Social Risk Management System (Sep 2022) 	<ul style="list-style-type: none"> Sustainability Reporting Guidelines for the Philippine Publicly-Listed Companies (Oct 2019) Sustainable Finance Framework for Banks (Apr 2020)
										Non-financial corporates	<ul style="list-style-type: none"> SEC Guidelines for Broad Categories of Eligible Projects for Green Bonds (Aug 2018) SEC Guidelines for Broad Categories of Eligible Projects for Social Bonds (Apr 2019) SEC Guidelines for Broad Categories of Eligible Projects for Sustainability Bonds (Apr 2019) 		<ul style="list-style-type: none"> Sustainability Reporting Guidelines for the Philippine Publicly-Listed Companies (Oct 2019)
Singapore	<ul style="list-style-type: none"> Second National Climate Change Study (2015) First Adaptation Communication Pursuant to the Paris Agreement (Nov 2022) 	<ul style="list-style-type: none"> USD 0.6 billion (0.2 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions to around 60 MtCO₂e in 2030, after peaking emissions earlier (Nov 2022) 	<ul style="list-style-type: none"> Net zero by 2050 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Charting Singapore's Low Carbon and Climate Resilient Future (Mar 2020) Singapore Green Plan 2030 (Feb 2021) Addendum to Singapore's Long-Term Low-Emissions Development Strategy (Nov 2022) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Land Transport Master Plan 2040 (Sep 2018) National Hydrogen Strategy (Oct 2022) 	<ul style="list-style-type: none"> Phase out unabated coal power generation; stop issuing permits for new unabated coal power stations by 2040 Finance the deployment of renewable energy (solar energy systems, etc.) and other alternative energy sources Encourage adoption of electric vehicles via tax incentives and charging deployment Introduce carbon tax (Jan 2019) 	<ul style="list-style-type: none"> Carbon Pricing Act (Jan 2019) 	<ul style="list-style-type: none"> Singapore Green Bond Framework (Jun 2022) 	Financial institutions	<ul style="list-style-type: none"> Taxonomy for Sustainable Finance (Dec 2023) 	<ul style="list-style-type: none"> Handbook on Implementing Environmental Risk Management (Jan 2021) Project Viridis—A Climate Risk Platform for Financial Authorities (Jun 2024) 	<ul style="list-style-type: none"> Climate Reporting and Assurance Roadmap (Feb 2024)
										Non-financial corporates	<ul style="list-style-type: none"> Taxonomy for Sustainable Finance (Dec 2023) 		<ul style="list-style-type: none"> Climate Reporting and Assurance Roadmap (Feb 2024)

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Thailand	<ul style="list-style-type: none"> Climate Change Master Plan 2015–50 (Jul 2015) 13th National Economic and Social Development Plan 2023–27 (Jun 2023) National Adaptation Plan (Nov 2023) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> 20-Year Agriculture and Cooperatives Strategy 2017–2036 (Apr 2017) 	<ul style="list-style-type: none"> USD 6.1 billion (1.4 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 30 percent relative to BAU level in 2030, and by an additional 10 percent conditional on international financial and technical support (Nov 2022) 	<ul style="list-style-type: none"> Carbon neutrality by 2050, net zero by 2065 	<ul style="list-style-type: none"> USD 600–900 billion in energy system investment between 2020–50 	<ul style="list-style-type: none"> Climate Change Master Plan 2015–2050 (Jul 2015) National Energy Plan Framework (2022) Long-Term Low Greenhouse Gas Emission Development Strategy (Nov 2022) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Thailand Integrated Energy Blueprint (Jun 2015) Master Plan for Sustainable Transport System and Mitigation of Climate Change Impacts (2013–30) Smart Grid Development Master Plan 2015–36 	<ul style="list-style-type: none"> Introduce carbon tax (for implementation in 2025) Introduce a domestic emissions trading system Scale up activity in the existing carbon market Offer financial incentives for renewable energy deployment and energy-saving technologies Target 100 percent zero-emission EVs in car sales by 2035; 50 percent of total auto production by 2030 Implement energy efficiency labels and standards Enhance and maintain existing carbon sinks 	<ul style="list-style-type: none"> Climate Change Act (draft currently under review by the cabinet/parliament); subsidiary laws to subsequently be created to implement the mechanisms under the Act 	<ul style="list-style-type: none"> Kingdom of Thailand Sustainable Financing Framework (Jul 2020) Policy Statement of the Bank of Thailand Re: Internalizing Environmental and Climate Change Aspects into Financial Institution Business (Feb 2023) 	Financial institutions		<ul style="list-style-type: none"> Sustainable Banking Guidelines (2019) 	<ul style="list-style-type: none"> Guidelines on Management and Disclosure of Climate-Related Risk by Asset Managers (Jan 2023)
										Non-financial corporates	<ul style="list-style-type: none"> Thailand Taxonomy Phase 1 (Jun 2023) Thailand Taxonomy Phase 2 (In Progress) 	<ul style="list-style-type: none"> The Stock Exchange of Thailand Guidelines for Sustainability Reporting (including One Report) (2021) 	
Vietnam	<ul style="list-style-type: none"> National Adaptation Plan 2021–30 (May 2023) 	<ul style="list-style-type: none"> USD 4.0 billion (1.5 percent of GDP) per annum under a worst-case economic scenario with 2.0-degree warming (UNESCAP) 	<ul style="list-style-type: none"> Reduce GHG emissions by 15.8 percent relative to BAU level in 2030, and by an additional 27.7 percent conditional on international financial and technical support (Nov 2022) 	<ul style="list-style-type: none"> Net zero by 2050 	<ul style="list-style-type: none"> USD 400–600 billion of energy system investments between 2020–50 	<ul style="list-style-type: none"> National Climate Change Strategy to 2050 (Jul 2022) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> Power Development Plan 8 (PDP8) (May 2023) Resource Mobilization Plan (Dec 2023) 	<ul style="list-style-type: none"> Phase out unabated coal power generation in the 2040s (or as soon as possible thereafter); stop issuance of new permits, construction, and direct government support for new unabated coal-fired power generation projects Offer financial incentives for renewable energy deployment and energy-saving technologies Implement energy efficiency labels and standards Establish a domestic carbon market (under development) 	<ul style="list-style-type: none"> Environmental Protection Law (enacted in Jan 2022) National Climate Change Strategy to 2050 (enacted in Jul 2022) 		Financial institutions	<ul style="list-style-type: none"> Circular 17/2022 on environmental risk management in lending activities by credit institutions (issued in Dec 2022, effective June 2023) 	<ul style="list-style-type: none"> Circular No. 96/2020/TT-BTC guiding the disclosure of information on the securities market (Nov 2020) 	
									Non-financial corporates		<ul style="list-style-type: none"> Circular No. 96/2020/TT-BTC guiding the disclosure of information on the securities market (Nov 2020) 		
ASEAN									<ul style="list-style-type: none"> ASEAN Green Bond Standards (Nov 2017) ASEAN Social Bond Standards (Oct 2018) ASEAN Sustainability Bond Standards (Oct 2018) Roadmap for ASEAN Sustainable Capital Markets (May 2020) ASEAN Sustainability-Linked Bond Standards (Oct 2022) 	Financial institutions	<ul style="list-style-type: none"> ASEAN Taxonomy for Sustainable Finance Version 1 (Nov 2021) ASEAN Taxonomy for Sustainable Finance Version 2 (Mar 2023, updated in Feb 2024) ASEAN Taxonomy for Sustainable Finance Version 3 (Apr 2024) 	<ul style="list-style-type: none"> ASEAN Sustainable and Responsible Fund Standards (Oct 2022) ASEAN Sustainable and Responsible Funds under ASEAN CIS Framework (Oct 2023) 	
										Non-financial corporates	<ul style="list-style-type: none"> ASEAN Taxonomy for Sustainable Finance Version 1 (Nov 2021) ASEAN Taxonomy for Sustainable Finance Version 2 (Mar 2023, 		

Table 1. ASEAN+3, EU, and US: Climate-Related Pledges, Roadmaps, and Financing (Cont'd)

Economy	Adaptation Efforts (Response to physical risks)		Mitigation Efforts (Response to physical and transition risks)				Enabling Guidelines and Regulations for Climate Resilience (Specific to the financial system)						
	National Strategy or Roadmap	Estimated Financing Needs	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Key Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-related Financial Disclosure Standards
											updated in Feb 2024) • ASEAN Taxonomy for Sustainable Finance Version 3 (Apr 2024)		
European Union	<ul style="list-style-type: none"> • Biodiversity strategy for 2030 (May 2020) • Farm to Fork Strategy (May 2020) • EU Adaptation strategy (Feb 2021) 	<ul style="list-style-type: none"> • EUR 35–500 billion (USD 38–541 billion) per annum (EIB) 	<ul style="list-style-type: none"> • Reduce net domestic GHG emissions by at least 55 percent relative to 1990 level in 2030 (Dec 2020, re-submitted Oct 2023) 	<ul style="list-style-type: none"> • Net zero by 2050 	<ul style="list-style-type: none"> • EUR 28 trillion (USD 30 trillion) in investments between 2020–50 	<ul style="list-style-type: none"> • Long-term Low Greenhouse Gas Emission Development Strategy of the European Union and its Member States (Mar 2020) • 2030 Climate Target Plan (Sep 2020) • European Green Deal (Dec 2019) • Fit for 55 Packages (Jul 2021) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> • European Industrial Strategy (Mar 2020) • European Green Deal Investment Plan (Jan 2020) • Circular economy action plan (Mar 2020) • EU Chemicals Strategy for Sustainability (Mar 2021) • REPowerEU (May 2022) 	<ul style="list-style-type: none"> • Introduce EU Emissions Trading System (Jan 2005) • Introduce the Just Transition Mechanism (Jan 2020) • Introduce EU renewable energy financing mechanism • Introduce EU Energy Platform (Apr 2022) • Introduce Carbon Border Adjustment Mechanism (May 2023) • Encourage adoption of electric vehicles via subsidies 	<ul style="list-style-type: none"> • Renewable Energy Directive (Dec 2018) • Directive on Energy Efficiency (revised in Nov 2018) • Climate Transition Benchmarks Regulation (Nov 2019) • European Climate Law (Jul 2021) • Corporate Sustainability Reporting Directive (Dec 2022) • Effort Sharing Regulation (amended in 2023) • LULUCF Regulation (revised in 2023) • ETS Directive (amended in 2023) 	<ul style="list-style-type: none"> • New sustainable finance strategy (Jul 2021) • European Green Bond Standard (Feb 2023) • Financing the Corporate Climate Transition with Bonds (Nov 2023) 	Financial institutions	<ul style="list-style-type: none"> • EU Taxonomy Regulation (Jun 2020) 	<ul style="list-style-type: none"> • Guide on climate-related and environmental risks (Nov 2020) • Development of tools and mechanisms for the integration of ESG factors into the EU banking prudential framework and into banks' business strategies and investment policies (Aug 2021) 	<ul style="list-style-type: none"> • Guidelines on Disclosure Requirements Applicable to Credit Ratings (Jul 2019) • Sustainability-related disclosures in the financial services sector (Nov 2019) • ECB report on institutions' climate-related and environmental risk disclosures (Nov 2020) • ESRB publishes report on how climate-related risks are reflected in IFRS financial statements (Apr 2024)
										Non-financial corporates	<ul style="list-style-type: none"> • EU Taxonomy Regulation (Jun 2020) 	<ul style="list-style-type: none"> • Commission guidelines on non-financial reporting (Jun 2019) • ECB report on institutions' climate-related and environmental risk disclosures (Nov 2020) • ESRB publishes report on how climate-related risks are reflected in IFRS financial statements (Apr 2024) 	
United States	<ul style="list-style-type: none"> • Climate Adaptation Plan (Oct 2021) • National Climate Resilience Framework (Sep 2023) 	<ul style="list-style-type: none"> • USD 25–128 billion per annum (The White House) 	<ul style="list-style-type: none"> • Reduce net GHG emissions by 50–52 percent relative to 2005 level in 2030 (Apr 2021) 	<ul style="list-style-type: none"> • Net zero by 2050 	<ul style="list-style-type: none"> • USD 27 trillion in investments between 2020–50 	<ul style="list-style-type: none"> • US National Climate Strategy (under development) • Justice40 Initiative (Jan 2021) • Climate Action Plan (Jul 2021) • The Long-Term Strategy of the United States (Nov 2021) <p>Sector roadmaps:</p> <ul style="list-style-type: none"> • Hydrogen Program Plan (2020) • Methane Emissions Reduction Action Plan (Nov 2021) • Industrial Decarbonization Roadmap (Sep 2022) 	<ul style="list-style-type: none"> • Offer financial incentives for investment and utilisation of clean and renewable energy • Encourage adoption of electric vehicles via tax credits and infrastructure • Implement energy efficiency and GHG standards for transportation and products • Phase down the production and consumption of hydrofluorocarbons to 15 percent of their baseline levels by 2036 by trading and allocation of allowances 	<ul style="list-style-type: none"> • American Innovation and Manufacturing Act (2020) • Energy Act (2020) • Executive Order on Climate-Related Financial Risk (May 2021) • Bipartisan Infrastructure Law (Nov 2021) • Inflation Reduction Act (2022) • New Corporate Average Fuel Economy (CAFE) standards (Apr 2022) 	<ul style="list-style-type: none"> • International Climate Finance Plan (Apr 2021) • Roadmap to Build a Climate-Resilient Economy (Oct 2021) 	Financial institutions	<ul style="list-style-type: none"> • Principles for Climate-Related Financial Risk Management for Large Financial Institutions (Oct 2023) 	<ul style="list-style-type: none"> • SEC's enhancement and standardization of climate-related disclosures for investors (Mar 2024) 	
										Non-financial corporates	<ul style="list-style-type: none"> • SEC's enhancement and standardization of climate-related disclosures for investors (Mar 2024) 		

Sources: Media reports; national authorities; United Nations; and AMRO staff compilations.

Note: Net zero emissions refer to cutting GHG emissions to as close to zero as possible, with any remaining emissions reabsorbed from the atmosphere, for instance, by oceans and forests. Carbon neutrality refers to net zero emissions of carbon dioxide, the most common GHG. Targeted greenhouse gases (GHGs) in countries' Nationally Determined Contributions vary. They may include, in addition to carbon dioxide, hydrofluorocarbons, methane, nitrogen trifluoride, nitrous oxide, perfluorocarbons, and sulphur hexafluoride. The UNESCAP worst-case scenario corresponds to the third Shared Socioeconomic Pathways Scenario (SSP3), which envisions a fragmented world with limited international cooperation and thus resulting in higher adaptation and mitigation costs. ASEAN = Association of Southeast Asian Nations; BAU = business as usual; ECB = European Central Bank; EIB = European Investment Bank Group; ESRB = European Systemic Risk Board; ETS = Emission Trading System; EU = European Union; FY = fiscal year; GDP = Gross Domestic Product; LULUCF = Land Use, Land-Use Change and Forestry; MtCO₂e = million tons of carbon dioxide equivalent; NDC = nationally determined contributions; RE = renewable energy; SDG = sustainable development goals; SEC = Securities and Exchange Commission TCFD = Task Force on Climate-Related Financial Disclosures; UNESCAP = United Nations Economic and Social Commission for Asia and the Pacific; US = United States. Amounts in euros (EUR) have been converted to US dollar (USD) using July 10, 2024 USD/EUR rate of 1.081.

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Table 2. International Standard-Setting Bodies: Enabling Regulations for Climate Resilience

Economy / Organization	Adaptation Efforts (Response to physical risks)		Mitigation Efforts (Response to physical and transition risks)				Enabling Guidelines and Regulations for Climate Resilience (Specific to the financial system)						
	National Strategy or Roadmap	Estimated Financing Needs (USD billion)	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Existing Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-Related Financial Disclosure Standards
Bank for International Settlements (BIS)	•	•	•	•	•	•	•	•	•	Financial institutions	• A taxonomy of sustainable finance taxonomies (Oct 2021)	• Principles for the effective management and supervision of climate-related financial risks (Jun 2022)	•
										Non-financial corporates	•	• Disclosure of climate related financial risks (Nov 2023)	
International Capital Market Association (ICMA)	•	•	•	•	•	•	•	•	• Green Bond Principles (Jun 2021) • Social Bond Principles (Jun 2021) • Sustainability Bond Principles (Jun 2021) • Sustainability Bond Principles (Jun 2023) • Transition Finance in the Debt Capital Market (Feb 2024)	Financial institutions	•	•	• Climate Transition Finance Handbook (Jun 2023)
										Non-financial corporates	•	•	• Climate Transition Finance Handbook (Jun 2023)
International Organization for Standardization (ISO)	•	•	•	•	•	•	•	•	•	Financial institutions	• Net Zero Guidelines (2022)	•	•
International Sustainability Standards Board (ISSB), under the International Financial Reporting Standards (IFRS) Foundation	•	•	•	•	•	•	•	•	•	Financial institutions	•	•	•
										Non-financial corporates	•	•	• IFRS S1 General Requirements for Disclosure of Sustainability-Related Financial Information (Jun 2023) • IFRS S2 Climate-related Disclosures (Jun 2023) • IFRS Sustainability Disclosure Taxonomy 2024 (Apr 2024) <i>Both standards incorporate TCFD recommendations.</i>
Organisation for Economic Co-operation and Development (OECD)	•	•	•	•	•	•	•	•	• Framework for SDG Aligned Finance (Nov 2020) • Assessing the climate consistency of finance (Apr 2022) • Assessing net-zero metrics for financial institutions (Dec 2023)	Financial institutions	•	• Managing Climate Risks and Impacts Through Due Diligence for Responsible Business Conduct (Oct 2023)	•
										Non-financial corporates	•	•	•
Task Force on Climate-Related Financial Disclosures (TCFD) - Financial Stability Board (disbanded and taken over by IFRS Foundation)	•	•	•	•	•	•	•	•	•	Financial institutions	•	• Guidance on Risk Management Integration and Disclosure (Oct 2020)	• Recommendations of the Task Force on Climate-Related Financial Disclosures (Jun 2017) • Guidance on Risk Management Integration and Disclosure (Oct 2020)
										Non-financial corporates	•	• Guidance on Risk Management	• Guidance on Risk Management

Table 1. ASEAN+3, EU, and US: Climate-Related Pledges, Roadmaps, and Financing (Cont'd)

Economy / Organization	Adaptation Efforts (Response to physical risks)		Mitigation Efforts (Response to physical and transition risks)				Enabling Guidelines and Regulations for Climate Resilience (Specific to the financial system)						
	National Strategy or Roadmap	Estimated Financing Needs (USD billion)	Nationally Determined Contribution (NDC) per Paris Agreement	Long-Term Target	Estimated Financing Needs (USD billion)	Framework(s) and Policy Transition Roadmap(s)	Existing Strategy(ies)	Legislation(s)	Sustainable (Climate) Finance Framework	Sector	Taxonomy	Risk Management	Climate-Related Financial Disclosure Standards
												<ul style="list-style-type: none"> Integration and Disclosure (Oct 2020) Guidance on Scenario Analysis for Non-Financial Companies (Oct 2020) 	<ul style="list-style-type: none"> Integration and Disclosure (Oct 2020)
United Nations (UN)	•	•	•	•	•	•	•	•	<ul style="list-style-type: none"> Common Framework of Sustainable Finance Taxonomies (For Latin America and the Caribbean) (Jul 2023) 	Financial institutions	•	•	•
										Non-financial corporates	•	•	<ul style="list-style-type: none"> Framework for Reporting Climate Change Risks & Opportunities in Corporate Reports (Oct 2012)

Sources: BIS; ICMA; IFRS; ISO; OECD; TCFD; UN.

Note: Net zero emissions refer to cutting GHG emissions to as close to zero as possible, with any remaining emissions reabsorbed from the atmosphere, for instance, by oceans and forests. IFRS= International Financing Reporting Standards; SDG= sustainable development goals.

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