



International Carbon Market Update  
States and Trends in the Asia Pacific

August 2024



## What we are seeing globally

- **Global revenues from compliance carbon pricing instruments surpassed USD100 billion in 2023**, reaching a record USD 104 billion from 75 carbon taxes and emissions trading schemes (ETSs) worldwide, according to the World Bank's 2024 State and Trends of Carbon Pricing Report.<sup>1</sup>
- **The coverage of compliance carbon pricing could expand from 24% to 30% of global emissions if all planned mandatory schemes are implemented.** However, this will remain significantly below the 50% coverage recommended by the High-Level Commission on Carbon Prices for 2030 to meet the Paris Agreement goals.<sup>1</sup>
- **Voluntary carbon markets (VCMs) are undergoing a consolidation phase**, with a maturing trend towards standardisation of supply and demand driven by market integrity initiatives such as the Voluntary Carbon Market (ICVCM) and the Voluntary Carbon Markets Integrity Initiative (VCMI).
- **In 2022 and 2023, VCMs saw a decline in credit issuances, while credit retirements stayed relatively stable.** According to information reported by the Science Based Targets Initiative (SBTi), over half of companies with SBTi-validated targets retire carbon credits. The main purpose is to support mitigation efforts beyond value chains to achieve net zero.<sup>2</sup>
- **Nature-based removal credits are increasingly valued by buyers for their significant mitigation potentials, environmental and social co-benefits, and cost efficiency.**<sup>2</sup> Notably, Google, Meta, Microsoft, and Salesforce have formed the Symbiosis Coalition, committing to contract up to 20 million tons of nature-based carbon removal credits by 2030.
- **A decision by the SBTi on the use of carbon credits within its Corporate Net-Zero Standard (CNZS) is not anticipated before next year.** Some had hoped for a decision sooner to support more VCM investment, but this will be delayed at best. In July, SBTi released four technical outputs as part of its review, including a synthesis report of evidence on the effectiveness of carbon credits in corporate climate targets.<sup>3</sup> SBTi invited stakeholder feedback on its Scope 3 Discussion Paper that elaborates on preliminary options to improve the value chain framework.<sup>4</sup>
- **The International Organisation for Standardisation (ISO) is also reviewing the use of carbon credits** in its development of the first International Standard on Net Zero for organisations, anticipated for launch at COP30 in November 2025.
- **CORSIA entered its first phase (2024-2026) following the pilot period, accepting only eligible credits with host country authorisations.** The two approved standards are the American Carbon Registry (ACR) and ART Trees. Meanwhile, Verra (VCS), Gold Standard (GS), and Climate Action Reserve (CAR) have resubmitted applications for assessment in September 2024, with market projections indicating potential demand outstripping supply by 2030.<sup>5</sup>
- **Under Article 6 international markets, emissions avoidance is currently ineligible for inclusion in the Article 6.2 and Article 6.4 mechanisms, with a review set for 2028.** The specific activities that qualify as emissions avoidance are not clearly defined due to the absence of a UN-agreed definition. However, emissions reductions and removals are considered eligible activities under the current rules.
- **Article 6 has made one of the top three 'enabling action' priorities for COP29 alongside climate finance and the operationalisation of the Loss and Damage Fund.** At SB60, the UNFCCC Secretariat was requested to organise a hybrid workshop on Article 6 before November 2024. This workshop will address technical matters related to authorisations, registries, reporting templates, sequencing of reporting and reviews, inconsistencies, and application of first transfers.
- **Article 6.2 cooperative approaches continue progressing at the jurisdictional level, with some governments beginning to issue Letters of Authorisations (LOAs) for independent projects.** As of May 2024, 37 VCM projects have received LOAs to supply credits with corresponding adjustments.<sup>6</sup>
- **The operationalisation of the Article 6.4 mechanism will require consensus on methodological guidelines**, along with the establishment of registry infrastructure, grievance and appeal procedures, and a sustainable development tool to ensure appropriate social and environmental safeguards.

<sup>1</sup> World Bank (2024) [State and Trends of Carbon Pricing](#)

<sup>2</sup> Ecosystem Marketplace (2024) [State of the Voluntary Carbon Market](#); Climate Focus (2023) [Voluntary Carbon Market Review](#), SBTi (2023) [Beyond Value Chain Mitigation \(BVCM\) Research](#)

<sup>3</sup> SBTi (2024) [Evidence Synthesis Report 1: Carbon Credits](#).

<sup>4</sup> SBTi (2024) [Scope 3 Discussion Paper: Aligning Corporate Value Chains to Global Climate Goals](#).

<sup>5</sup> Abatable Analysis (2024) [CORSIA Carbon Credit Demand Expected to Outstrip Supply by 2030](#)

<sup>6</sup> AlliedOffsets (2024) [Credits Bridging Voluntary and Compliance Carbon Markets](#)



## State of Carbon Markets in the Asia Pacific (APAC)

Country	NDC targets	Compliance mechanisms	Voluntary Crediting schemes	Acceptance of international credits in compliance schemes	Bilateral collaborations
<b>Indonesia</b> <sup>7</sup>	<p><b>2030:</b> Reduce GHG emissions by 31.9% below BAU (unconditional); up to 43.2% below BAU (conditional)</p> <p><b>2060:</b> Climate neutrality.</p>	Phase One (2023 and 2024) of the mandatory ETS in the power sector regulates 99 coal-fired power plants with a capacity of 25 MW or more. A carbon tax is anticipated around 2025.	IDXCarbon was launched in September 2023 to trade credit certificates known as Sertifikat Pengurangan Emisi Gas Rumah Kaca (SPE-GRK).	Through mutual recognition agreed by the Minister of Environment and Forestry.	<p><b>Japan:</b> 35 projects under the JCM.</p> <p><b>Norway:</b> MOU to support GHG reductions from FOLU</p> <p><b>Singapore:</b> MOU to collaborate on climate change, including carbon markets.</p>
<b>Vietnam</b> <sup>7</sup>	<p><b>2030:</b> Reduce emissions by 43.5% compared to BAU levels.</p> <p><b>2050:</b> Net zero domestic emissions.</p>	A pilot ETS is planned to be implemented between 2025 and 2027 to cover the steel, cement and thermal power sectors.	A domestic pilot carbon crediting mechanism and a carbon trade exchange (CTX) are planned for 2025.	To be determined.	<p><b>Japan:</b> 18 projects under the JCM.</p> <p><b>South Korea:</b> 3 projects contracted under Article 6.2.</p> <p><b>Singapore:</b> Article 6 MOU signed.</p>
<b>Malaysia</b> <sup>7</sup>	<p><b>2030:</b> 45% reduction of economy-wide carbon intensity compared to 2005 levels (unconditional)</p> <p><b>2050:</b> Net zero emissions.</p>	A feasibility study with the World Bank is being conducted to explore the implementation of carbon pricing instruments.	Bursa Carbon Exchange (BCX) was launched in December 2022 to trade VCS-registered carbon credits.	To be determined.	<b>Singapore:</b> Framework on Cooperation (FOC) In Green Economy, including carbon industry collaboration.
<b>Singapore</b> <sup>7</sup>	<p><b>2030:</b> reduce emissions to around 60 MtCO<sub>2</sub>e.</p> <p><b>2050:</b> Net zero emissions.</p>	A carbon tax was introduced in 2019 and raised from SGD5/tCO <sub>2</sub> e to SGD25/tCO <sub>2</sub> e in 2024, aiming to reach SGD50-80/tCO <sub>2</sub> e by 2030.	No domestic scheme. International credits are traded through AirCarbon Exchange (ACX) and Climate Impact X (CIX).	Yes. From 2024 onwards, international credits meeting the eligible criteria can cover up to 5% of taxable emissions.	Bilateral agreements with 18 countries across Latin America, Asia, Africa, and the Pacific.
<b>Thailand</b> <sup>7</sup>	<p><b>2030:</b> 30% reduction (unconditional) and 40% (conditional) compared to BAU.</p> <p><b>2065:</b> Net-zero emissions.</p>	The government is exploring options to develop either an ETS or a carbon tax.	Thailand Voluntary Emission Reduction Scheme (T-VER) was established in 2013 to promote domestic carbon trading.	To be determined.	<p><b>Japan:</b> 24 projects under the JCM.</p> <p><b>Switzerland:</b> The Bangkok E-Bus Program is authorised under Article 6.2.</p>

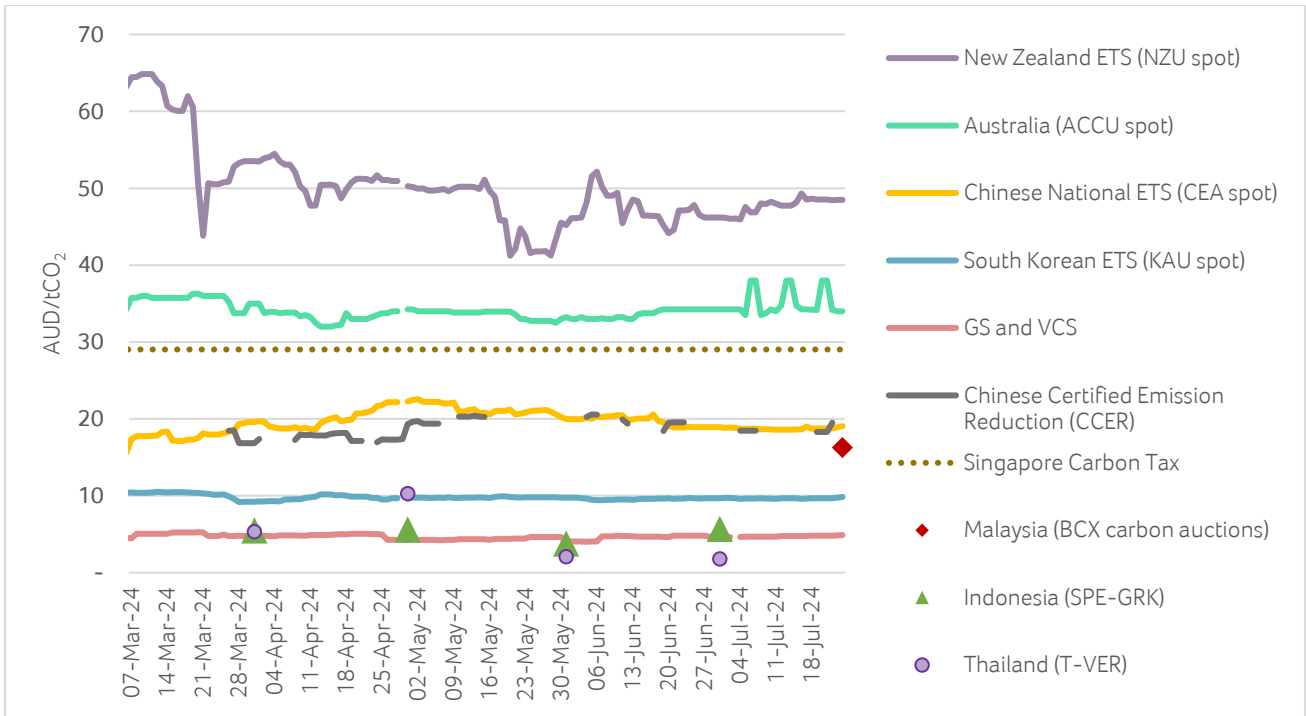
<sup>7</sup> Members States of the Association of Southeast Asian Nations (ASEAN), which comprises 10 countries including Brunei, Cambodia, Laos, Myanmar, and the Philippines.



Country	NDC targets	Compliance mechanisms	Voluntary Crediting schemes	Acceptance of international credits in compliance schemes	Bilateral collaborations
<b>China</b>	<p><b>2030:</b> Peak CO<sub>2</sub> emissions and reduce carbon intensity by over 65% from 2005 levels.</p> <p><b>2050:</b> Carbon neutrality.</p>	The Chinese national ETS (CETS) has operated since 2021 to regulate the power sector alongside eight pilot ETSs at the regional level.	The Chinese Certified Emissions Reduction Scheme (CCER) was relaunched in January 2024 to supplement the national ETS, covering up to 5% of verified emissions.	Not currently.	Not currently.
<b>India</b>	<p><b>2030:</b> 45% reduction of emissions intensity below 2005 levels.</p> <p><b>2070:</b> Net zero emissions.</p>	A Carbon Credit Trading Scheme (CCTS) is currently being developed and is expected to launch in 2026.	A voluntary baseline-and-credit system is anticipated to be established by 2024, with trading expected to commence in 2025.	To be determined.	Not currently. An updated list of eligible Article 6.2 activities is <a href="#">available</a> .
<b>South Korea</b>	<p><b>2030:</b> 40% reduction below 2018 levels.</p> <p><b>2050:</b> Carbon neutrality.</p>	Launched in 2015, the Korean ETS (KETS) covers large emitters across seven sectors: power, industry, buildings, waste, transport, domestic aviation, and maritime.	The Korean Carbon Offset Scheme is a key part of the KETS in supplying Korean Offset Credits (KOCs) for up to 5% of compliance use in Phase III (2021 - 2025).	Yes. The government plans to use 37.5 Mt of international credits to meet its 2030 NDC target.	Article 6 bilateral agreements with <b>Gabon, Ghana, Mongolia, Uzbekistan, Vietnam, Laos, Indonesia, Kazakhstan, Cambodia, and Bangladesh.</b>
<b>Japan</b>	<p><b>FY2030:</b> 46% reduction from FY2013 levels.</p> <p><b>2050:</b> Net zero emissions.</p>	A carbon tax is currently set at JPY289/tCO <sub>2</sub> (AUD2.87/ tCO <sub>2</sub> ). A voluntary ETS (GX-ETS) is also being piloted and will transition to a mandatory scheme in 2026.	Implemented in 2013, the J-Credit Scheme issues credits (J-Credits) to support voluntary targets, the new GX-ETS, and Saitama ETS at the prefecture level.	Yes. The government aims to secure 100 Mt of overseas reductions through the Joint Crediting Mechanism (JCM) to meet its 2030 NDC target.	Partner with 29 countries spanning Africa, the Americas, Asia, Europe, and the Pacific under the JCM.
<b>Australia</b>	<p><b>2030:</b> 43% below 2005 levels.</p> <p><b>2050:</b> Net zero emissions.</p>	In 2023, the Safeguard Mechanism was reformed into a declining baseline-and-credit system to cover the industrial sector.	The Australian Carbon Credit Unit Scheme (ACCU) operates alongside the Safeguard Mechanism to supplement compliance and voluntary uses.	To be determined.	Article 6 bilateral agreements with <b>Fiji and Papua New Guinea.</b>
<b>New Zealand</b>	<p><b>2030:</b> 50% reduction of net emissions below 2005 levels.</p> <p><b>2050:</b> Net zero emissions except biogenic methane.</p>	The New Zealand ETS (NZ ETS), operational since 2008, covers eight sectors, including forestry, maritime, and domestic aviation.	Not currently.	The government intends to use high-integrity international credits to meet its 2030 target.	In discussions with <b>Singapore and the Philippines</b> to collaborate on carbon markets.



# Carbon Prices in Selected APAC Countries



Sources: CarbonCredits.com, AlliedOffsets, Beijing Carbon Exchange, IDXCARBON, BCX, TGO

## VCMs in Emerging Asian Economies



### Malaysia

BCX conducted its inaugural auction of Malaysian nature-based carbon credits in July 2024. The auction featured credits from the Kuamut Rainforest Conservation Project in Sabah, with contracts clearing at MYR50 (AUD16.46) each.



### Indonesia

IDXCARBON serves as the national trading platform for domestic allowance and credit markets. Since January 2024, the platform has traded 114,486 certificates (SPE-GRK) from two energy projects, generating a total revenue of around IDR5,881 million (AUD 551,538).



### Thailand

T-VER has registered over 438 projects, including 434 standard and 4 premium projects. As of June 2024, more than 3.42 million carbon credits have been traded, amounting to over THB299 million (AUD12.7 million).

Sources: [BCX](#), [IDXCARBON](#), [Carbon Pulse](#)

## Facts and Figures about APAC



**51.2%**  
Share of global emissions (2021)



**50%**  
World's low-carbon opportunities



**17** National and subnational carbon pricing instruments



**3** ETSs under development  
**5** In consideration



**USD4.35 Billion**  
Carbon revenue collected through compliance ETSs

Sources: [International Energy Agency](#), [Wood Mackenzie](#), [ICAP](#), [World Bank](#)

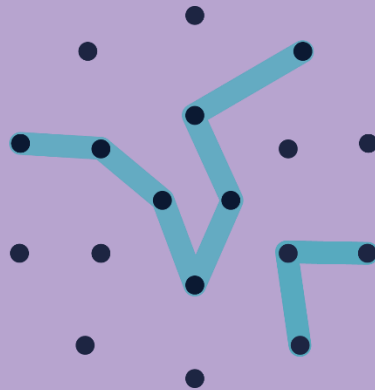


## Market Trends in APAC

- **APAC is well-positioned to leverage carbon pricing for emission reductions and climate finance.** The International Monetary Fund (IMF) estimates that a carbon price of USD25/tCO<sub>2</sub>, gradually implemented over the next decade, could reduce APAC's emissions by 21% by 2030, surpassing the region's Paris Agreement targets by 8%. It could also generate additional revenue equivalent to 0.8% of GDP per country.<sup>8</sup>
- **There is a growing momentum to integrate compliance carbon pricing into national climate strategies.** Most ASEAN member states (see Table above), as well as India and Japan, are actively working on establishing domestic carbon pricing frameworks. These efforts are expected to intensify over the next few years to mitigate the impacts of the EU CBAM by 2026.
- **Compliance carbon markets (CCMs) have gained wider adoption than carbon taxes amidst a challenging global economic context.** Singapore stands out as the only country in the region to have implemented a rising carbon tax. Meanwhile, Indonesia, Vietnam, Thailand, India, and Japan are progressing through various phases of voluntary carbon trading before transitioning to a compliance ETS or a hybrid system.
- **The regional markets are rapidly evolving but remain fragmented due to varying regulatory environments and diverse trading platforms.** The presence of multiple carbon exchanges in emerging APAC economies, such as IDXCarbon in Indonesia, BCX in Malaysia, and FTIX in Thailand, has led to low market liquidity and limited price discovery (see graph above) for driving investment and operational decisions.
- **To create effective carbon price signals, regional governments should explore feasible options for linking market infrastructures, enhancing system interoperability, and improving resource efficiency.** While developing an integrated market like the EU ETS can be legally and administratively challenging, the strong political will for collaboration among APAC countries provides a solid foundation for considering synergies between different types of carbon markets.
- **As VCMs mature, the demand for credits could increasingly be driven by compliance obligations** due in part to (a) the lack of domestic crediting mechanisms to prevent duplication of efforts with independent carbon standards and (b) the introduction or expansion of national carbon pricing schemes in APAC. For instance, in Australia, the demand for ACCUs is shifting towards retirements by compliance entities under the reformed Safeguard Mechanism.<sup>9</sup>
- **Clarification of rules surrounding CCMs, VCMs, and Article 6 is anticipated to drive carbon market growth in the region.** An upsurge in carbon market activities could emerge from APAC as emissions trading regulations and related ecosystems are being established to improve investment confidence and certainty around supply, demand, quality, and prices.

<sup>8</sup> IMF (2021) [Fiscal Policies to Address Climate Change in Asia and the Pacific](#)

<sup>9</sup> Clean Energy Regulator (2024) [Quarterly Carbon Market Report March Quarter 2024](#)



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