Global Carbon Prices

<table>
<thead>
<tr>
<th>Country</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>China (CEA spot)</td>
<td>$12.27</td>
</tr>
<tr>
<td>Beijing Pilot (spot)</td>
<td>$23.75</td>
</tr>
<tr>
<td>South Korea (KAU spot)</td>
<td>$13.01</td>
</tr>
<tr>
<td>US (latest RGGI auction)</td>
<td>$18.97</td>
</tr>
<tr>
<td>Australia (15th ERF auction)</td>
<td>$17.12</td>
</tr>
<tr>
<td>Australia (ACCU spot)</td>
<td>$34.75</td>
</tr>
<tr>
<td>New Zealand (NZU spot)</td>
<td>$125.75</td>
</tr>
<tr>
<td>European Union (EUA spot)</td>
<td>$96.75</td>
</tr>
</tbody>
</table>

Sources: Carbon Pulse | CER | Jarden | ICE | KRX | Commttrade | MAG | Carbon Credits.com
Price dates: China ETS (2/6/23), South Korea (2/6/23), Aus Spot (2/6/23), RGGI (8/3/23), EU (2/6/23), UK (2/6/23), Beijing (9/5/23) | Aus Auction (29/3/23 and 30/3/23), New Zealand (2/6/23)

Global Climate Policy Update

Internationally:

- **The Intergovernmental Panel on Climate Change (IPCC)** released the 6th **Synthesis Report** on 20 March 2023, restating that global emissions need to decline by at least 43% by 2030 and 60% by 2035 (compared to 2019 levels) to keep warming to 1.5°C. The Synthesis Report estimates that the average surface temperature has risen by 1.1°C since the pre-industrial era. While reaching net zero emissions by 2050 requires deep reductions in gross emissions, the IPCC acknowledged that some sectors could face prohibitive costs or technological constraints in their transition. For these hard-to-abate industries, the use of carbon removal technologies is ‘unavoidable’ to counterbalance residual emissions.

- **The Integrity Council for the Voluntary Carbon Market (ICVCM)** launched the global benchmark for high-integrity carbon credits. The Core Carbon Principles (CCPs) and the Program-Level Assessment Framework provide global threshold standards to identify carbon credits that generate real, verifiable climate impact based on science and best practice. Carbon credits will be labelled as CCP compliant only if the carbon-crediting program that issues them and the category of the carbon credits are assessed as high-quality using robust criteria. A Category-level Assessment Framework will be released mid-year.

- **The G7 Ministers’ Meeting** on Climate, Energy and Environment in Sapporo, Japan, produced a comprehensive **communique** affirming the Group’s commitment to accelerating the clean energy transition and emphasising the critical role of carbon markets in the transformation to net zero. The document also highlighted the urgent need to safeguard the integrity of carbon credits from both supply and demand sides. To this end, the G7 adopted the **Principles of High Integrity Carbon Markets**, acknowledging the importance of creating rules and procedures through independent multistakeholder initiatives such as the ICVCM.

- **The Supervisory Body (SB) of Article 6.4** conducted its 4th meeting from 7-10 March and its 5th meeting from 31 May-3 June 2023. During the March meeting, the SB adopted a work plan comprising 73 agenda items to be accomplished within the year. Ahead of the June meeting, it released an **information note** on removal activities,
expressing scepticism towards engineering-based activities and their alignment with Article 6.4 objectives. While the carbon capture industry has opposed to the statement highlighting the critical role of carbon dioxide removals (CDRs), the final decisions and methodological guidance regarding this matter will likely be determined only at COP28.

- **The 58th session of the Subsidiary Bodies of the UNFCCC (SB58)** is taking place in Bonn from 5–15 June 2023. This meeting will resume negotiations from COP27 on key topics such as loss and damage, mitigation, and adaptation. Notably, the second component of the first Global Stocktake (GST), the technical assessment, will be completed to evaluate countries’ collective progress in achieving the goals of the Paris Agreement and identify opportunities for enhanced action and support, including international cooperation for climate action.

- An updated research report by the International Emissions Trading Association (IETA) and the University of Maryland shows that the effective implementation of Article 6 mechanisms could significantly reduce the resources needed for achieving emissions reductions. Emissions mitigation efforts could be more than doubled by reinvesting the resulting savings in increased ambition. The report further highlights that countries engaging in cooperative mitigation, whether as sellers or buyers, always benefit from such collaboration irrespective of the number of participating countries.

### In Europe, the Middle East and Africa:

- **The European Parliament** approved reforms to the European Union Emissions Trading Scheme (EU ETS) on 18 April 2023. These reforms are related to a provisional agreement reached among the European Parliament, Council and Commission in December 2022 as part of the Fit for 55 package, which aims to reduce the Bloc's greenhouse gas emissions by at least 55% by 2030. The key legislative changes adopted include:
  - Ratcheting up the EU ETS's 2030 emissions reduction target from 43% to 62% compared to 2005 levels;
  - Expanding the scope of the EU ETS to maritime transport;
  - Phasing out free allowances to companies from 2026 until 2034;
  - Phasing in the Carbon Border Adjustment Mechanism (CBAM)1 over the same period for the importers of iron, steel, cement, aluminium, fertilisers, electricity and hydrogen;
  - Establishing a new ETS (i.e. EU ETS II) to regulate fuel use in road transport and buildings in 2027; and
  - Setting up an EU Social Climate Fund (€86.7 billion, or USD 95.8 billion) to ensure a fair and socially inclusive climate transition.

- **The United Arab Emirates (UAE)** has become the 26th country to partner with Japan under the Joint Crediting Mechanism (JCM). According to the bilateral agreement signed by the two parties, Japan will implement projects in the UAE to generate carbon credits that the countries will share. Separately, the UAE has signed a memorandum of understanding (MOU) with Zambia, Tanzania and Liberia to enhance cooperation in carbon project development. Blue Carbon, a newly founded carbon project developer based in Dubai, has also inked a similar deal with Papua New Guinea (PNG) to assist in developing frameworks and strategies to regulate PNG-based carbon market activities.

- **The African Carbon Markets Initiative (ACMI)** announced 13 action programs at the January 2023 Abu Dhabi Sustainability Week. The initiative aims to advance Africa's participation in the global carbon market by launching voluntary carbon market (VCM) activation plans, promoting market commitments to purchase African credits, and developing new methodologies suitable for the continent. Seven countries – Burundi, Gabon, Kenya, Malawi, Mozambique, Nigeria and Togo – have signed up for the initiative, while another seven are considering their participation. At COP 27, ACMI secured USD200 million from large corporates such as Bloomberg Philanthropies and the Rockefeller Foundation as advanced credit purchasing commitments.

### In China:

- **Beijing Green Exchange** announced the completion of the registration and trading systems for the Chinese Certified Emission Reduction (CCER) in February 2023, signalling that the country's VCM may resume shortly following six years of suspension. The Ministry of Ecology and Environment has called for proposals for new and revised CCER methodologies that meet additionality requirements which are easy to verify. Under the current

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1 The CBAM entered into force on 17 May 2023 and will be operational from 1 January 2026. During the transition period from 1 October 2023 to 31 December 2025, importers will be obliged to report their emissions on a quarterly basis, but the purchase of CBAM certificates will be optional.
arrangements in China, entities regulated by the Chinese National Emissions Trading Scheme are allowed to use CCER credits to account for 5% of their verified emissions. Due to the supply-demand imbalance, the CCER price has increased from CNY45/tonne (May 2021) to CNY57 (May 2023). The relaunch of the CCER is expected to improve market liquidity and limit the credit price rise.

- The Ministry of Ecology and Environment (MEE) issued the Allowance Allocation Plan for 2021 and 2022 on 15 March 2023. The national ETS remains intensity-based, and all allowances will be distributed freely, with the carbon emission benchmark for power and heat supply generating units reduced by only 0.5%. Regulated entities will receive pre-allocated free allowances of up to 80% of their verified emissions in 2021 for 2022. They can also borrow pre-allocated allowances for 2023 to address the shortfall in 2022. The information related to the national ETS can now be assessed via the National Carbon Market Comprehensive Information Portal launched on 7 February 2023.

In the Asia Pacific:

- Indonesia launched the compliance carbon market (CCM) for the power sector in February 2023. The CCM will feature an ETS to regulate facilities with a production capacity exceeding 100 MW. It will cover 99 coal-fired power plants that account for 81.4% of the national power generation capacity. The scheme will be implemented in three phases, with the first phase running from 2023 to 2024 to deliver an estimated emissions reduction of 500,000 tCO2-e in the first compliance year. On the other hand, Indonesia has also lifted the ban on the international transfer of carbon credits from its domestic VCM.
- Malaysia’s Bursa Carbon Exchange completed its inaugural auction in March 2023, with 15 buyers from various industries purchasing 150,000 Verra-registered carbon credits from the Linshu Biogas Recovery and Power Generation Project in China, and the Southern Cardamom REDD+ Project in Cambodia. Additionally, the Malaysian Government has committed to a seed fund of RM10 million (approximately AUD3.4 million) to support Malaysian-generated carbon credits.
- India released draft guidelines for its Carbon Credit Trading Scheme (CCTS) in March 2023. The document outlines the institutional framework and defines the roles and responsibilities of the agencies involved. A governing board will be established to oversee the market and propose regulations for trading with foreign buyers. India has also identified 12 eligible activities under the Article 6.2 mechanism, including renewable energy storage, offshore wind and green hydrogen.
- Thailand plans to impose a carbon tax on the energy, transport and industry sectors to help achieve its carbon neutrality goal by 2050 and net zero greenhouse gas emissions by 2063. Thailand’s energy sector accounts for 35% of the country’s carbon emissions, while the transport and industry sectors make up 59%. According to the nation’s Excise Department, a carbon tax would help the country address the rising fuel import costs and the implementation of the Carbon Border Adjustment Mechanism by the European Union in 2026.
- South Korea set a new deadline to finalise the 4th basic plan for its national ETS in December 2023. The South Korean Government will align the ETS allocation plan with the country’s updated NDC target of a 40% emissions reduction below 2018 levels. According to Carbon Pulse, the South Korean ETS has recorded a suboptimal performance in its monthly auctions over the past few months due to permit oversupply. In March 2023, the auction cleared at ₩12,700 (AUD14.40), representing a 13.6% decrease in permit price compared to the sale in December 2023. As a result, the Government has cancelled auction plans for 3.7 million permits by June 2023.
- Japan has called for JCM project proposals for the fiscal year of 2023. The application will open from 6 April 2023 to 30 November 2023, with a total budget of ¥15 billion (AUD 169 million) to be invested over the next three years. The country has 26 bilateral partners under the JCM. It has recently announced an intention to form a new partnership with India to ratchet up the supply of JCM credits, which will be used for meeting its NDC targets and be traded on the GX League – the country’s voluntary carbon market.
- New Zealand announced in March 2023 a review of the New Zealand Emissions Trading Scheme (NZ ETS) to strengthen incentives for at-source decarbonisation. The New Zealand Government will reassess the role of the ETS as part of its climate change strategy and consider policy options to drive emissions reductions in the energy, transport, industry and waste sectors. Due to regulatory uncertainties, the price of the NZ ETS Unit has dropped to an 18-month low, with the March auction failing to sell a single unit as bids fell below the Government’s confidential reserve price.
- In Australia, the Safeguard Mechanism (Crediting) Amendment Bill passed through both houses of Parliament in late March 2023. The primary amendment is the introduction of tradable, below-baseline Safeguard Mechanism
Credits, creating an additional incentive for driving at-source emissions reductions by covered facilities. The agreement made between the Government and the Greens will require the aggregate absolute emissions of covered entities to further reduce over time with reference to a rolling five-year average. The revised scheme rules are expected to be finalised before they take effect on 1 July 2023.

- **Papua New Guinea (PNG)** is expected to release carbon market regulations and REDD+ guidelines in June 2023. In March this year, the country finalised its Climate Change Management Act, which has been submitted to the National Executive Council for approval. Additionally, PNG has recently signed an IPCOS Joint Action Plan with Australia to collaborate on participating in global carbon markets and enhancing technical capacity. Similar to Fiji, PNG was one of the initial signatories to Australia’s Indo-Pacific Carbon Offset Scheme.

**In the Americas:**

- **Canada's 2023 Budget** in March set forth CAD35 billion (AUD39 billion) worth of tax credits for clean investments, including a 15% refundable tax credit for eligible investment in non-emitting electricity generation systems (including abated gas-fired power generation), a 30% tax credit for clean technology manufacturing, and a tax credit for green hydrogen ranging from 15% to 40% of eligible project costs. Additionally, the Canadian Government announced it would consult on ‘carbon contracts for difference’ (CCfDs) to help de-risk emissions reduction projects by guaranteeing a fixed price for carbon or hydrogen over a contract period. These measures came as a response to the US Inflation Reduction Act, which allocated around USD370 billion (AUD553 billion) towards climate initiatives.

- The **US-led Energy Transition Accelerator (ETA) scheme** has selected Winrock International to develop a carbon crediting standard to generate high-quality carbon credits in developing countries. The company will be responsible for establishing the methodologies, procedural and governance matters, rules for accounting and reporting, and energy transition strategies and safeguards. The ETA was launched at COP 27 in partnership with the Bezos Earth Fund and the Rockefeller Foundation. In parallel with the development of the crediting standard, the ETA partners are working to create a coalition of the private sector and sovereign government buyers that will make advance commitments to purchase carbon credits that meet the standard.

**Market Commentary**

**Growing carbon markets in Southeast Asia**

On 23 May 2023, the World Bank released the tenth edition of its **State of Trends of Carbon Pricing report**. The report highlights the rising adoption of carbon-pricing instruments in the post-pandemic recovery period when governments are faced with fiscal constraints. This trend indicates a growing recognition among policymakers of the role of market mechanisms in raising revenue and driving innovation to support both sustainable development and climate mitigation goals.

Southeast Asia (SEA) is an emerging participant in voluntary and compliance carbon markets. Over the past two decades, the region has contributed around 170 MtCO2e of emissions reductions and removals, accounting for approximately 11% of the global supply of VCM credits. However, the reported untapped potential of the region in generating sustainable economic opportunities through the expansion of new carbon market activities is estimated at USD 10 billion annually by 2030.

**Medium-term slowdown with anticipated growth ahead**

The private sector in SEA is increasingly considering environmental, social and governance (ESG) principles as critical to long-term business opportunities and growth. However, global disruptions have hindered the immediate incorporation of these principles into business decisions at all levels.

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2 Climate Focus and UNDP. (2023) VCM Access Strategy Toolkit: Considerations for host countries when engaging in high-integrity voluntary carbon markets, p.13.
According to the 12th United Nations Global Compact-Accenture CEO Study, economies in Asia have been hit hard by supply chain disruptions, escalating costs of raw materials, and the upsurge in energy prices. As a result, many regional corporate entities may prioritise short-term profitability goals over long-term sustainability commitments.

Despite economic challenges, governments in SEA are expected to persist in their efforts to price carbon emissions in the future. One of the driving factors behind this momentum is the adoption of CBAM by the European Union (EU). SEA commodity producers rely significantly on the EU market for their exports of chemicals, iron and steel, aluminium, and fertiliser. Implementing carbon-pricing instruments would enable developing governments to retain carbon revenues that would otherwise escape to the EU.

**Targeted support for regional capacity building**

Extensive capacity-building activities are essential to assist SEA countries in enhancing their regulatory frameworks, market infrastructure and technical expertise on carbon markets. These activities include technology transfer, knowledge sharing and policy guidance.

The table below depicts six SEA countries in varying stages of carbon market implementation. The uneven progress underscores the importance for potential development partners to recognise and address the specific capacity gaps in individual countries. This strategic approach will help SEA countries establish systems aligned with their priorities and national circumstances.

For instance, CMI, with the support of the Australian Government, is assisting the Fiji Government in conducting technical assessments and stakeholder consultations to develop a Fiji National Carbon Market Strategy Roadmap. Fiji’s NDC contains a provision that outlines its intention to use voluntary market cooperation to promote the achievement of its NDC targets. The strategy roadmap will set out strategic priorities and objectives that help guide Fiji’s engagement in carbon markets moving forward.

**Strengthening collaboration within SEA and beyond**

During the ASEAN Climate Dialogue at COP26, SEA countries reflected on the diversity of national circumstances across the region and highlighted the need for enhanced cross-government coordination in areas such as carbon pricing, nature-based solutions and the energy transition. They acknowledged the role of carbon markets in facilitating the achievement of their NDC targets under the Paris Agreement.

To collaborate under Article 6, several countries in SEA have engaged in bilateral agreements with partner countries within the region and beyond. For example, Singapore has signed MOUs with Vietnam, Thailand and Cambodia to develop carbon projects that comply with Article 6.2 requirements. Additionally, seven SEA countries, namely Vietnam, Laos, Indonesia, Cambodia, Myanmar, Thailand and the Philippines, have collaborated with Japan under the JCM.

With the completion of the first authorisation process for ITMOs transfer from Ghana to Switzerland, countries in other regions now have a valuable reference point to build collaborative approaches in line with their NDC targets and the Paris rules. SEA countries could also benefit from the experiences of governments in the Indo-Pacific region in designing and operating their carbon trading systems. Australia, in particular, has a unique opportunity to capitalise on its renewed climate ambition to establish itself as a frontrunner in carbon markets in the Indo-Pacific region. The iterations of the Australian carbon markets have provided an invaluable experience to share the best practices learnt with SEA countries as they establish their domestic carbon-pricing systems and the Article 6 market mechanisms.

### Development status of market mechanisms in selective SEA countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Intention to use market mechanisms</th>
<th>Institutional arrangement</th>
<th>Regulatory framework</th>
<th>Market type</th>
<th>Carbon registry</th>
<th>MRV system</th>
<th>Trading platform</th>
<th>External collaboration</th>
</tr>
</thead>
</table>

3 CMI’s compilation and analysis based on information drawn from ICAP, World Bank’s Carbon Pricing Dashboard, World Bank’s State and Trends of Carbon Pricing 2023, Carbon Pulse, Gold Standard’s Implementing Article 6 report, and other news articles.
## June 2023 Quarterly Update
International Climate Policy and Market Developments

<table>
<thead>
<tr>
<th>Country</th>
<th></th>
<th>Inter-Ministerial Committee on Climate Change</th>
<th>Carbon Pricing Act</th>
<th>Carbon system with the flexibility to use carbon credits against 5% taxable emissions by 2024</th>
<th>Carbon Action Data Trust</th>
<th>Emissions Data Monitoring and Analysis (EDMA) system</th>
<th>Climate Impact X</th>
<th>AirCarbon Exchange</th>
<th>Article 6 MOUs with multiple countries, including Indonesia and Vietnam.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>✓</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>✓</td>
<td>Thailand Greenhouse Gas Management Organisation (TGO)</td>
<td></td>
<td>Climate Change Act is currently under review.</td>
<td></td>
<td>TGO is in partnership with STACS, a fintech company, to develop a carbon registry.</td>
<td></td>
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</tr>
<tr>
<td>Indonesia</td>
<td>✓</td>
<td>Ministry of Energy and Mineral Resources (MEMR)</td>
<td>Presidential Regulation 98/2021</td>
<td>A hybrid 'cap-tax-and-trade' is under development.</td>
<td>National Registry System for Climate Change Control (SRN-PPI)</td>
<td>An integrated monitoring system will be set up to link to SRN-PPI.</td>
<td></td>
<td></td>
<td>Japan's JCM</td>
</tr>
<tr>
<td>Malaysia</td>
<td>✓</td>
<td>Ministry of Natural Resources, Environment and Climate Change</td>
<td>National Guidance on Voluntary Carbon Market Mechanisms</td>
<td>A voluntary carbon market and a preliminary plan to implement a mandatory ETS</td>
<td>The VCM is supported by Verified Carbon Standard (Verra)</td>
<td>Bursa Carbon Exchange</td>
<td></td>
<td></td>
<td>A bilateral agreement with Singapore to cooperate in areas including carbon markets.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>✓</td>
<td>Ministry of Natural Resources and Environment</td>
<td>Law of Environmental Protection</td>
<td>A mandate to implement a domestic ETS and a national crediting mechanism</td>
<td>Operates a basic carbon registry as part of participation under the JCM</td>
<td>A carbon exchange is expected to be established by around 2028.</td>
<td></td>
<td></td>
<td>Japan's JCM, bilateral agreements with South Korea and Singapore</td>
</tr>
<tr>
<td>Philippines</td>
<td>✓</td>
<td>Department of Environment and Natural Resources</td>
<td>Low Carbon Economy Act House Bill</td>
<td>A cap-and-trade system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Japan's JCM, MOU between a Japanese start-up and a Philippines state-owned enterprise</td>
</tr>
</tbody>
</table>

| Limited data | Early development | Development in progress | Near completion or completed |

Note: The table highlights the various climate policy and market developments across different countries, with notes on the status of each initiative ranging from early development to near completion or completion.