Bird & Bird

Carbon Credits framework comparison across Singapore, Malaysia & Indonesia

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How is a carbon credit measured?

Singapore

Carbon credits refer to carbon emission reductions, measured in tonnes of carbon dioxide equivalent (tCO2e). They can be generated from projects that take in carbon from the atmosphere, or reduce the amount of carbon released into the atmosphere. These reduction/removals are then quantified and verified, before the relevant verification programme issues carbon credits under their registries, which can be traded. In Singapore, from 1 January 2024, carbon tax-liable companies will be able to rely on the international carbon credit framework to use eligible carbon credits to fulfil part of their carbon tax liability by offsetting up to 5% of their taxable emissions.

Malaysia

In Malaysia, carbon credits are measured in metric tonnes of carbon dioxide equivalent (tCO2e). Carbon credits are measured based on the reduction, avoidance, or removal of greenhouse gas emissions.

At the federal level, there are no laws defining how a carbon credit is measured.

However, at the state level, section 70B of the Sarawak Forests Ordinance, 2015, defines a "carbon credit unit" as a unit of account representing one tonne of emission reductions issued by a Carbon Standard pursuant to the applicable Carbon Standard Rules and held in a Carbon Registry. Additionally, rule 30(1) of the Forests (Forest Carbon Activity) Rules, 2022, i.e. the corresponding subsidiary legislation to the Sarawak Forests Ordinance, 2015, provides that an emission reduction generated by a carbon stock from Forest Carbon Activity, upon verification pursuant to the applicable Carbon Standard Rules is referred to as a "carbon credit unit".

Indonesia

In Indonesia, a carbon credit is referred to as a **carbon unit** and are measured in tonnes of carbon dioxide equivalent (tCo2e). This is based on Article 1 number 24 of Minister of Environment and Forestry of the Republic Indonesia ("**MOEF**") Regulation Number 21 of 2022 concerning Procedures for the Application of Carbon Economic Value ("**MOEF Regulation 21/2022**") in conjunction with Article 1 number 15 of President Regulation Number 98 of 2021 concerning The Implementation of Carbon Economic Value Achieve Nationally Determined Contribution Targets and Control Over Greenhouse Gas Emission in Relation to National Development ("PR 98/2021") which define carbon units as evidence of carbon ownership in the form of a certificate or technical approval and expressed in 1 (one) tonne of carbon dioxide equivalent. These carbon units are recorded in the National Registry System for Climate Change Control / Sistem Registri Nasional Pengendalian Perubahan Iklim ("SRN **PPI**"), which functions as a platform or system for the management and provision of web-based data and information on measures and resources for Climate Change Mitigation, Climate Change Adaptation, and Carbon Pricing / Nilai Ekonomi Karbon ("NEK") in Indonesia.

How is a carbon credit treated legally?

Singapore

Clarity is required in Singapore on how carbon credits are to be treated legally – however, carbon credits are likely to be treated as intangible property that can be defined and identified through unique serial numbers, having a certain degree of permanence and stability since they can exist in specialised registries, and are capable of being sold to and purchased by third parties.

Malaysia

In Malaysia, the legal landscape of carbon trading is still developing. At the federal level, there are no specific laws directly addressing carbon credits as a tradable instrument since there are no specific carbon trading laws in place.

Similarly, at the State level, the legal treatment of a carbon credit is also unclear, as the legislations relating to carbon credits in States which did legislate on the matter, i.e. Sarawak and Sabah, are also silent on this matter.

Currently, carbon credit transactions rely on general contract law principles to protect the commercial and legal interests of sellers and buyers of carbon credits.

Indonesia

In Indonesia, based on Article 3 paragraph (1) of the Financial Services Authority ("**OJK**") Regulation Number 14 of 2023 concerning Carbon Trading through Carbon Exchanges ("**POJK 14/2023**"), carbon units are treated as securities (*efek*). Carbon units as securities are securities or investment contracts either in conventional or digital form or other forms in accordance with technological developments that give the owner the right to obtain economic benefits either directly or indirectly from the issuer or certain parties based on agreements and any derivatives of securities that can be transferred and/or traded on the capital market.

Carbon units as securities may be traded on carbon exchanges that are regulated and supervised by OJK. Carbon units traded on the Carbon Exchange must first be listed on the SRN PPI of the Carbon Exchange Operator, which is the party that organises and provides the carbon exchange.

Furthermore, the Indonesian government also assigns **an economic value to carbon units**. The economic value in question is the value of each unit of greenhouse gas ("**GHG**") emissions resulting from human and economic activities. Giving economic value to carbon units is one of Indonesia's efforts to mitigate GHG emissions.

On 29 October 2021, just ahead of the 2021 United Nations Climate Change Conference, the Indonesian government issued PR 98/2021, introducing NEK (carbon pricing). PR 98/2021, which serves as the foundational framework for the performance of NEK and as the guideline for the reduction of GHG emissions through policies, measures, and measures to achieve Nationally Determined Contribution ("**NDC**") targets and control GHG emissions in national development.

Subsequently, in 2022, the MOEF issued MOEF Regulation 21/2022, which regulates the implementation of NEK through detailed provisions. This regulation includes specific policies for carbon pricing, mechanisms for domestic and international carbon trading, buffer obligations, guidelines for voluntary carbon markets, and protocols for mutual recognition. MOEF Regulation 21/2022 represents a significant milestone in operationalising NEK and demonstrates Indonesia's commitment to combating climate change and promoting sustainable development. The performance of NEK shall be implemented with the following mechanisms:

- a. Carbon trading;
- b. Result-based payments;
- c. Carbon levy; and/or
- d. Other mechanisms in accordance with the development of science and technology.

Moreover, the performance of NEK may be carried out on (i) sectors (referring to NDC sectors with activities linked to GHG emissions) and (ii) sub-sectors (which entails activities of sub-sectors associated with GHG emissions). Parties within these sectors include those involved in energy, waste, industrial process and product use, agriculture, forestry, and or other sectors in accordance with the development of science and technology.





Does the concept of a compliance credit exist?

Singapore

Yes, certain carbon credits can be used towards fulfilling regulatory obligations. Singapore has introduced a carbon tax as part of a comprehensive suite of measures to encourage companies to adopt technologies for decarbonisation at an early juncture, and implemented a staged (but significant) increase in carbon tax from 2022, from S\$5 per tonne to S\$45 per tonne in 2026 and 2027. In addition to fixed priced carbon credits issued by the National Environment Agency of Singapore ("NEA"), the Ministry of Sustainability and the Environment ("MSE") and the NEA have published an eligibility criteria for certified emissions reductions/removals occurring between 1 January 2021 and 31 December 2030 under the International Carbon Credit ("ICC") framework, which was effective from 1 January 2024. The eligibility criteria comprises 7 principles, including no double counting, quantified and verified, no net harm, and no leakage, to demonstrate high environmental integrity. Under this framework, eligible ICCs can be used to offset up to 5.0% of taxable emissions. Based on the eligibility criteria, the Singapore government then developed a list of eligible host countries, which currently includes carbon crediting programmes in the host country of Papua New Guinea. This follows the signing of an implementation agreement between Singapore and Papua New Guinea on carbon credits cooperation under Article 6 of the Paris Agreement. Singapore is continuing to expand the eligibility list by entering into more implementation agreements further to the memorandum of understanding entered into globally, and has noted that the eligibility list will be reviewed annually to maintain relevance and uphold high environmental integrity standards, based on the latest science and evidence.

Malaysia

companies can participate based on their environmental goals.

Indonesia

Yes, there are compliance credits in Indonesia. These compliance credits may be obtained from the following carbon trading mechanisms: (i) emission trading (cap and trade), and (ii) GHG emissions offset.

A. Emissions Trading (Cap and Trade)

The carbon unit cap-and-trade scheme is for businesses and activities that have GHG emission limits that are determined through the Technical Approval of Emission Limits / Persetujuan Teknis Batas Atas Emisi – Pelaku Usaha ("PTBAE-PU") by the relevant Ministry. The emissions trading mechanism was actively implemented after MOEF Regulation 21/2022 was officially promulgated. One of which is the energy sector, which began actively conducting emissions trading after this regulation was introduced.

To date, the implementation of the stipulation of approval for the granting of PTBAE-PU has been actively implemented in the power plant sub-sector, specifically for coal-fired steam power plants connected to the electricity network of PT Perusahaan Listrik Negara (Persero). The implementation of NEK in the power plant sub-sector is regulated by Minister of Energy and Mineral Resources Regulation No. 16 of 2012 and Minister of Energy and Mineral Resources Decree No. 14.K/TL.04/MEM.L/2023.

While Malaysia has ambitious goals for reducing greenhouse gas emissions, it has not implemented a mandatory carbon trading scheme yet. The Bursa Carbon Exchange ("BCX") only focuses on a voluntary market where

Based on Article 10 of MOEF Regulation 21/2022, the determination of PTBAE-PU is carried out based on a business' proposal or direct determination. A PTBAE-PU that has been determined by the relevant ministry can be traded at the beginning of the compliance period through domestic emission trading and/or among PTBAE-PU owners. The remaining PTBAE-PU and/or unused emissions quota can be traded domestically and/or among PTBAE-PU owners or stored for a maximum of two years after the compliance year. The PTBAE for each type of power plant is implemented in three phases, which include:

- a. the first phase, for the period of 2023 through 2024;
- b. the second phase, for the period of 2025 to 2027; and
- c. the third phase, for the period of 2028 to 2030.



Carbon units are traded when actual emissions exceed the PTBAE-PU, in which case business entities shall purchase carbon units from other business entities. If actual emissions are below PTBAE-PU, carbon units may be traded domestically among business entities within a sub-sector or a sub-sub-sector that has the same GHG emission upper limit or emissions quota. In addition, if actual emissions are below the PTBAE-PU, business entities may apply for the issuance of a GHG Emission Reduction Certificate / Sertifikasi Pengurangan Emisi Gas Rumah Kaca ("SPE-GRK") so that these business entities can conduct carbon trading domestically, internationally, or across sectors.

The SPE-GRK, issued by the MOEF through the Directorate General for Climate Change Control, serves as evidence of emission reduction accomplished by businesses or activities that have undergone measurement, reporting, and verification processes. Each certificate is recorded in the SRN-PPI, documented through distinct numbers and registry codes.

B. GHG Emissions Offsets

Furthermore, carbon units can be traded through offsets. Based on Article 14 paragraph (1) of Regulation 21/2022, GHG emission offsets are carried out for businesses and/or activities that:

- a. do not have GHG emissions upper limits;
- b. emission surplus, if the GHG emission reduction achievement results from the climate change mitigation action are below the specified GHG emission target and baseline; or
- c. emission deficit, if the results of GHG emission reduction achievements from climate change mitigation actions are above the target and below the stipulated GHG emission baseline.

Based on these provisions, carbon units traded through offsets are carried out when business entities produce an emission surplus, they can then sell the surplus emissions to other parties. On the other hand, in the event of an emission deficit, business entities can offset the difference by purchasing from other businesses that have an emissions surplus.



Does the concept of a voluntary credit exist?

Singapore

Yes, carbon credits can be utilised by individuals and organisations on a voluntary basis to compensate for their carbon footprint and slow climate change. Voluntary carbon credits may be a bundle of contractual rights or personal and tangible property, and unless there is legislation or a court ruling, there is no certainty on their legal characterisation. In addition, voluntary carbon credits are currently neither mandated by law nor regulated.

Malaysia

Yes, the concept of voluntary credits exists in Malaysia.

Malaysian laws and regulations are silent on the status of international carbon standards, of which voluntary carbon markets are based on. There are no prohibitions from the federal law nor State laws with regards to the usage of international carbon standards. However, presently, there are multiple Malaysian carbon projects which have been registered on the Verified Carbon Standard ("**VCS**") and Gold Standard Impact registries.

Additionally, Malaysia also has a voluntary carbon market exchange, i.e. the Bursa Carbon Exchange ("**BCX**"), which allows for the trading of voluntary credits. BCX is operated and managed by Bursa Malaysia Carbon Market Sdn Bhd, a wholly owned subsidiary of Bursa Malaysia Berhad, which is the national stock exchange of Malaysia. It offers various modes of trading such as auctions, off-market transactions, and continuous spot trading. Participation in BCX is open to both Malaysian and international corporations, who can engage as traders, suppliers, brokers, or market makers. However, as stated in the Voluntary Carbon Market Handbook ("**VCM Handbook**") and the BCX's website, the only project types which are allowed to be traded on the BCX are nature-based or tech-based solution (removal or avoidance) projects issued by the VCS. Additionally, the vintage of the carbon projects must be from 2016 onwards. Vintage typically refers to the calendar year during which the emission reduction, avoidance or sequestration occurs. With that being said, the BCX has entered into an Memorandum of Understanding ("**MOU**") with Gold Standard, intending to incorporate Gold Standard-certified carbon credits onto the exchange at a later date. At the moment, this inclusion is pending, with only the MOU being finalised.

Indonesia

Yes, there are voluntary credits in Indonesia. These credits were issued before PR 98/2021 came into force and are traded voluntarily.

However, it is worth to note that according to PR 98/2021, business entities which were previously engaged in carbon trading or result-based payments before the regulation came into effect, specifically on October 20, 2021, are required to record and report their climate change mitigation actions and carbon units through the SRN PPI **within one year from the promulgation of this presidential regulation**, which is in October 2022.

The failure in fulfilling these recording and reporting obligations would cause businesses to not be able to sell their remaining carbon units. Carbon units that have been registered and reported through the SRN PPI are only eligible for domestic carbon trading. Additionally, business entities which were already carried out carbon trading or performance-based payments before the regulation came into effect are obliged to adjust to the provisions related to the implementation of carbon pricing as specified in PR 98/2021, in which such adjustments shall be made no later than 2023.

In its development, Indonesia is obliged to develop policies to achieve the NDC targets that Indonesia has committed to by 2030, so the carbon trading system in Indonesia is now clearly regulated and transparent. The enactment of carbon-related laws and regulations to date is a tangible effort by the government of Indonesia to reduce GHG emissions and to achieve Indonesia's NDC target.

What is the carbon credit standard that is mandated? If none, which standard is commonly used?

Singapore

Singapore does not have a mandated carbon credit standard. However, please see the responses above on the eligibility criteria and list for eligible ICCs which can be used to offset carbon tax liabilities.

In addition, the National Climate Change Secretariat of Singapore announced in December 2023 a collaboration with the word's largest independent carbon crediting programmes - Verra's Verified Carbon Standard ("**VCS**") and Gold Standard to develop a playbook that sets out streamlined standard operating procedures that countries can use to increase their use of existing carbon crediting programmes to achieve and exceed their Nationally Determined Contributions under the Paris Agreement. It was recognised that how governments and carbon crediting programmes such as ("**VCS**") and Gold Standard should work under Article 6 of the Paris Agreement is still being defined and may lead to divergent approaches hindering its implementation. As such, the collaboration recognises the benefit of defining the respective roles of national registries and crediting programme registries to allow for efficient information exchange and a harmonised approach in complying with the rules.

Malaysia

There are no carbon credit standards that are mandated for carbon projects which are carried out in Malaysia.

Nevertheless, as mentioned earlier, in order to trade on BCX, as stated in the VCM Handbook and the BCX's website, the only project types which are allowed to be traded on the BCX are nature-based or tech-based solution (removal or avoidance) projects issued by the VCS. Additionally, the vintage of the carbon projects must be from 2016 onwards. With that being said, the BCX has entered into an MOU with Gold Standard, intending to incorporate Gold Standard-certified carbon credits onto the exchange at a later date. At the moment, this inclusion is pending, with only the MOU being finalised.

Indonesia

The mandatory carbon credit standard in Indonesia is the Certification of Greenhouse Gas Emissions Reduction of Indonesia (*Sertifikasi Pengurangan Emisi Gas Rumah Kaca Indonesia*/ "SPEI"), which is regulated under Decree of the Minister of Environment and Forestry Number: SK.1131/MENLK/PPI.PPI.2/10/2023 concerning the Indonesian Greenhouse Gas Emissions Reduction Certification Scheme.

The SPEI adopts standards determined by the United Nations Framework Convention on Climate Change ("**UNFCCC**") Paris Agreement by considering the TACCC principles (Transparency, Accuracy, Completeness, Comparability, Consistency). From the standards implemented by the UNFCCC Paris Agreement, Indonesia has adopted them in the system of verification and validation process and Measurement, Reporting, and Verification ("**MRV**") process that is regulated in the MOEF Regulation 21/2022. If a validation and verification team conduct sampling, the standard that has been adopted from the UNFCCC for sampling and surveys for Clean Development Mechanism ("**CDM**") project activities and program of activities are used.



Are there any regulations relating to carbon credit accreditation?

Singapore

Please see above responses. There are currently no regulations in Singapore targeting the issuing organisations of carbon credits in respect of the verification and accreditation process.

Malaysia

At the federal level, there are no regulations relating to carbon credit accreditation.

At the state level, Sarawak is the only state that has legislation relating to carbon credit accreditation in the Sarawak Forests Ordinance, 2015.

Section 70A of the said Ordinance stipulates that the Sarawak Director of Forests may grant a Forest Carbon Licence for any person to carry out a Forest Carbon Activity. The licence will grant its holder the full legal and beneficial title to the carbon stock or greenhouse gas stock, or carbon credit units associated with the Forest Carbon Activity.

Furthermore, Rule 49 of Sarawak's Land (Carbon Storage) Rules, 2022, provides that approval must be sought from the Sarawak State Planning Authority in the event a person wishes to seek validation of the scheme for the capture and storage of scheduled gases to secure certification for the issuance of carbon credits.

Indonesia

Yes, there is regulation around carbon credit accreditation in Indonesia. The regulation stipulates that the validation and verification process during the performance of NEK shall be carried out by a third party independent validator and verifier that has been accredited by the

National Accreditation Committee/ Komite Akreditasi Nasional ("KAN"). KAN is a subdivision of National Standardization Agency of Indonesia/ Badan Standarisasi Nasional ("BSN").

In granting accreditation to carbon validation and verification institutions, KAN applies several standards that must be met, namely:

- requirements for validation and verification bodies;
- validating and verifying environmental information;
- greenhouse gas validation teams and verification teams;
- e. IAF MD 6:2014 Application of ISO 14065:2013.

Currently, Indonesia has four independent institutions as validators and verifiers, namely*:

- a. PT Mutuagung Lestari;
- Services);
- c. PT TUV NORD Indonesia; and
- d. PT TUV Rheinland Indonesia.

*(source: National Climate Change Registry System website, https://srn.menlhk.go.id/index.php?r=lvv%2Findex).

a. SNI/ISO/IEC 17029:2019, Conformity assessment - General principles and

b. ISO/IEC 14065:2020, *General principles and requirements for bodies*

c. ISO 14066:2011, Greenhouse gases - Competence requirements for

d. ISO 14064-3:2019, Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements; and

b. PT Superintending Company of Indonesia (PT Sucofindo) - SBU Certification & Eco Framework (Sucofindo International Certification



What is the regulatory framework relating to the sale and purchase of carbon credits within a jurisdiction? Are carbon credit trading platforms regulated?

Singapore

The trading of carbon credits may not be caught by the regulatory regime in Singapore under the Commodity Trading Act 1992 of Singapore as a "commodity" - While the definition of a "commodity" is very broadly defined, as the Commodity Trading Act targets tangible property (defined as "any produce, item, goods, article"), trading of carbon credits may not be subject to licensing. As carbon credits do not appear to exhibit the characteristics of traditional capital markets products (including derivatives), they are also unlikely to trigger licensing under the Securities and Futures Act 2001. Carbon credits are also unlikely to be a digital payment token and should not be regulated under the Payment Services Act 2019 of Singapore (the "**Payment Services Act**") since it is not a "digital payment token". For completeness, while carbon credits are not an unallocated commodity for the purpose of GST, the issuance, sale or transfer of any carbon credit (or digital representation of a carbon credit) is an excluded transaction and GST is not chargeable on the consideration received for such issuance, sale or transfer.

Carbon credit trading platforms are unlikely to be regulated by the Payment Services Act if they are not involved in the collection or transfer of money of platform users. Even where carbon credits may be regulated, carbon credit traders and trading platforms are likely to be able to rely on certain licensing exemptions set out in the Commodity Trading Act to negate the necessity for a commodity broker licence or a spot commodity broker licence. However, depending on the business model adopted, the carbon credit trading platforms may require licensing as a market operator under the Securities and Futures Act.

Malaysia

At the federal level, there isn't a dedicated regulatory framework governing the sale and purchase of carbon credits within Malaysia. However, such transactions do occur, relying on general contract law principles to protect the commercial and legal interests of both sellers and buyers of carbon credits.

At the state level, Sarawak is the only state that has legislation relating to the sale and purchase of carbon credits. Section 70A of the Sarawak Forests Ordinance, 2015, stipulates that the Sarawak Director of Forests may grant a Forest Carbon Licence for any person to carry out a Forest Carbon Activity. The licence holder will be entitled to participate in the trading of the carbon credit units associated with the said Forest Carbon Activity.

Additionally, rule 50 of the Land (Carbon Storage) Rules, 2022, provides that the Sarawak State Government shall be entitled to a percentage of the revenue received by any carbon storage licensee from the trading of carbon credits.

Furthermore, rule 33 of the Forests (Forest Carbon Activity) Rules, 2022, provides that the Sarawak Director of Forests shall determine the total number of carbon credit units generated by such Forest Carbon Activity that is tradable.

There is only one carbon trading platform in Malaysia, i.e. the BCX. It is not regulated by the Federal Government, nor is it regulated by any State Governments. However, entities who wish to trade on the BCX will have to comply with its rules and operating procedures, i.e. the i) Rules of Bursa Carbon Exchange; and the ii) Operating Procedures of Bursa Carbon Exchange.

As alluded to earlier, in order to trade on BCX, as stated in the VCM Handbook and the BCX's website, the only project types which are allowed to be traded on the BCX are nature-based or tech-based solution (removal or avoidance) projects issued by the VCS. Additionally, the vintage of the carbon projects must be from 2016 onwards. With that being said, the BCX has entered into an MOU with Gold Standard, intending to incorporate Gold Standard-certified carbon credits onto the exchange at a later date. At the moment, this inclusion is pending, with only the MOU being finalised.



Indonesia

The sale and purchase of carbon credits in Indonesia is regulated under PR 98/2021 as umbrella regulations for carbon trading in Indonesia. MOEF Regulation 21/2022 has been issued as the implementing regulation of PR 98/2021. To date, there have been several regulations issued by relevant ministries for the implementation of said carbon trading, such as Minister of Energy and Mineral Resources of the Republic Indonesia ("**MEMR**") Regulation Number 16/2022 concerning Procedures for the Implementation of Carbon Economic Value Within the Power Plant Sector ("**MEMR Regulation 16/2022**") for the electricity sub-sector and MOEF Regulation Number 7 of 2023 concerning Procedures for Carbon Trading in The Forestry Sector ("**MOEF** 7/2023") for the forestry sector. Under the MOEF Regulation 21/2022, carbon trading in Indonesia can be carried out through domestic and international trading which can be carried out through the mechanism of emissions trading and GHG emissions offset through the **carbon exchange** (*bursa karbon*) and/or **direct trading**.

There are several requirements that must be met to conduct carbon trading, namely:

- a. in accordance with the carbon trading roadmap;
- b. provide emission reduction reserves (buffers); and
- c. in the form of SPE-GRK for cross-sector carbon trading.

In addition, there are three additional requirements that must be met to conduct overseas carbon trading, namely:

- a. be carried out after the relevant ministry has determined and submitted the plan and achievement strategy related to the NDC in the sector and sub-sector to the MOEF;
- b. has achieved the NDC target in the sub-Sector or sub-sector for overseas carbon trade; and
- c. obtained authorisation from the MOEF.

Emissions Trading

- a. the actual GHG emission value is below the GHG emission reduction target of the sub-sector or sub-sector; and
- b. based on the carbon trading road map.

business entities or direct determination.

domestically, internationally, or across sectors.

GHG Emissions Offsets

carried out for businesses or activities that:

a. do not have a GHG Emission Upper Limit;

Carbon units traded through the emission trading scheme are carried out for businesses and/or activities that have GHG Emission Upper Limits that have been determined through the PTBAE-PU by the relevant ministry.

Emission trading is applied to businesses and/or activities that have GHG Emission Upper Limits that have been determined through PTBAE. The determination of PTBAE must at least fulfil the following provisions:

- PTBAE shall be the basis for the relevant ministry in determining PTBAE-PU. Determination of PTBAE-PU shall be carried out based on proposal of
- PTBAE-PU that has been determined by the ministry **is traded through** domestic emission trading and/or among PTBAE-PU owners.
- If actual emissions exceed the PTBAE-PU, then business entities shall purchase carbon units from other business entities. If actual emissions are below the PTBAE-PU, carbon units may be traded domestically among business entities in sub-sectors or sub-sub-sectors that have the same GHG emission upper limit or emissions quota. If actual emissions are below the PTBAE-PU, business entities may apply for the issuance of a SPE-GRK. Business entities with SPE-GRK may conduct carbon trading
- Furthermore, carbon units can be traded through offsets. Based on Article 14 paragraph (1) of MOEF Regulation 21/2022, GHG Emission Offsets are

- b. emission surplus, if the GHG Emission reduction achievement results from the climate change mitigation action carried out are below the specified GHG emission target and baseline; or
- c. emission deficit, if the results of GHG emission reduction achievements from climate change mitigation actions carried out are above the target and below the stipulated GHG emission baseline.





Cross-Sector Carbon Trading

Carbon trading may be conducted across sectors that consists of:

- a. overseas cross-sector carbon trading; and/or
- b. domestic cross-sector carbon trading.

Overseas cross-sector carbon trading shall be carried out if the GHG emission reduction target of the sub-sector or climate change mitigation action plan has been achieved. Meanwhile, domestic cross sector carbon trading shall be carried out based on the cross-sector carbon trading quota determined by the relevant ministry. Determination of the crosssector carbon trading quota shall be prepared by considering:

- a. the prioritisation of climate change mitigation in the concerned sector;
- b. the cost of emission reduction in the sector involved (abatement cost);
- c. methodology for proving the performance of climate change mitigation in the sector involved;
- d. results of monitoring, evaluation, and reporting of the NEK implementation procedure in each year; and
- e. comparison of emission reduction achievements with the NDC target in the current year.

Carbon Exchange

Carbon trading can be implemented through the carbon exchange. Based on Article 1 point 23 PR 98/2021, the carbon exchange is a system that regulates the recording of carbon stocks, carbon trading, and the ownership status of carbon units. Carbon units traded on the carbon exchange must first be listed on:

- a. SRN PPI; and
- b. Carbon Exchange Operator.

For international carbon trading will be explained further in the section below entitled *"What is the regulatory framework relating to the cross border/ multi-jurisdictional sale and purchase of carbon credits?"*.





What is the regulatory framework relating to the cross-border/ multijurisdictional sale and purchase of carbon credits?

Singapore

Please refer to our response above.

Malaysia

There are no federal nor State laws regulating cross-border/multijurisdictional sale and purchase of carbon credits.

Nonetheless, as previously mentioned, such transactions do occur, relying on general contract law principles to protect the commercial and legal interests of both sellers and buyers of carbon credits.

Additionally, under Malaysia's voluntary carbon market exchange, i.e. BCX, there are also no restrictions imposed on the purchase and sale of carbon credits generated from projects carried out in Malaysia by/to foreign buyers.

Indonesia

Please refer to our response in the section below entitled "What is the regulation to conduct international carbon trading?".



Are there any regulations relating to carbon capture?

Singapore

We are not aware of any regulations in Singapore relating to carbon capture.

Malaysia

At the federal level, there are no regulations relating to carbon capture.

At the state level, there are two states which have legislations in relation to carbon capture, i.e. Sarawak and Sabah.

With regards to the Sarawak Land Code [Cap. 81 1958 Ed.], section 32B of the said Code provides that any person who wishes to use his land for the purpose of carbon storage must first obtain a licence from the Sarawak Superintendent of the Director of Lands and Surveys. Additionally, in accordance with section 231 of the said Code, if a person wishes to apply for a sub-division or development of their land, they must prepare six copies of a plan of sub-division or development, which shows the precise location and size of the area to be used for carbon storage and where the land is on the foreshore or the beds of the sea within the boundaries of Sarawak, the geological formation of the area intended for carbon storage.

Furthermore, section 70A of the Sarawak Forests Ordinance, 2015, stipulates that the Sarawak Director of Forests may grant a Forest Carbon Licence for any person to carry out a Forest Carbon Activity. However, the Sarawak Minister (who for the time being is charged with the responsibility for resource planning) reserves the right to cancel or suspend the Forest Carbon Licence.

for the following carbon capture-related matters:

- i. Carbon storage (categories of land that carbon can be stored on);
- ii. Licence for Carbon Storage (the procedure for application, rights and privileges, duration and revocation of licence);
- iii. Storage Permit (the procedure for application of the permit, contents of the storage permit, revocation of the permit and its consequences, as well as termination of the permit and the transfer of obligations under it); and
- iv. Storage site (submission of reports and information of the storage site and the closure of storage site).

carbon capture-related matters, in particular:

- i. Carbon Study Permit (the procedure for application and extension of the permit, as well as events leading to suspension or cancellation of the permit);
- ii. Carbon Licence (the procedure for application and renewal of the licence, events leading to stoppage of activities under the carbon licence, or suspension or cancellation of the licence altogether);
- iii. Sarawak Forest Carbon Registry (a register containing the details of each Forest Carbon Activity and its carbon credits);
- iv. Sarawak Carbon Licence Register (a register containing the details of each Carbon Licence issued);



Additionally, the Sarawak Land (Carbon Storage) Rules, 2022 also provides

The Sarawak Forests (Forest Carbon Activity) Rules, 2022, also covers

- v. Carbon stocks; and
- vi. Carbon credits (the reporting that needs to be done in relation to Carbon Activity).

carbon credits, the total number of credits that is tradeable for a Forest In relation to the State of Sabah, section 28C of Sabah's Forest Enactment, 1968, provides that any proposed Reduce Emissions from Deforestation and Forest Degradation-plus (REDD+) initiatives and projects in Sabah involving forest produce shall obtain the written approval of the Sabah Minister (who is responsible for matters relating to natural resources) subject to the terms and conditions as he thinks fit.

Furthermore, section 2 of the same Enactment provides that 'forest produce' includes carbon stored in trees or plants. Taking that definition into consideration, the Sabah Minister (who for the time being is responsible for matters relating to natural resources) is therefore empowered under section 24 of the same Enactment, to prescribe rates at which fees, royalties, and other payments on forest produce which shall be payable to the Sabah State Government, by holders of any licences (as of the time of writing, there are no licences, nor are there fees, royalties, or other payments prescribed with regards to REDD+ initiatives and projects yet, the State of Sabah merely requires a written approval from the Sabah Minister to be obtained for REDD+ initiatives, as alluded to in the earlier discussion on section 28C of Sabah's Forest Enactment, 1968).

Indonesia

Yes, there are regulations around carbon capture in Indonesia. To date, regulations on carbon capture and storage in Indonesia have only been issued for the oil and gas sector.

Regulation on carbon capture and storage in Indonesia is regulated in:

a. **President Regulation Number 14 of 2024 concerning the Organization of Carbon Capture and Storage Activities ("PR 14/2024")** : This regulation outlines the framework for performing Carbon Capture and Storage ("**CCS**") Activities. It provides guidelines and regulations regarding the establishment, operation, and monitoring of CCS projects, aimed at mitigating carbon emissions and combating climate change. The regulation is pivotal in shaping the implementation of CCS initiatives in accordance with national policies and international commitments.

Currently, the PR 14 of 2024 regulation has not been actively implemented, with the government just preparing regulations related to CCS projects. Apart from that, according to research results from the MOEF, CCS activities are not yet included to reduce Indonesia's NDC target.

b. MEMR Regulation Number 2 of 2023 concerning the Organization of Carbon Capture and Storage, as well as Carbon Capture, Utilization and Storage in Upstream Oil dan Gas Business Activities ("MEMR 2/2023"): The regulations governs the organisation and implementation of CCS, as well as Carbon Capture, Utilization, and Storage (CCUS) activities within the upstream oil and gas sector in Indonesia (specific sector).



What is the regulation on conducting international carbon trading (i.e. the purchase by a foreign buyer of carbon credits on Singapore's/Malaysia's carbon market)?

Is there any restriction to do so?

Singapore

In terms of voluntary carbon credit trading, we are not aware of any applicable regulations. However, where organisation wish to utilise the carbon credits to offset their carbon tax, please refer to the eligibility list in the responses above.

Malaysia

There are no federal nor State laws regulating cross-border/multijurisdictional sale and purchase of carbon credits.

Nevertheless, as highlighted earlier, such transactions do occur, with sellers and buyers of carbon credits relying on general contract law principles to safeguard their commercial and legal interests.

Additionally, under Malaysia's voluntary carbon market exchange, i.e. BCX, there are also no restrictions imposed on the purchase and sale of carbon credits generated from projects carried out in Malaysia by/to foreign buyers.

Indonesia

International carbon trading allows both countries to work together voluntarily towards meeting their NDC targets. Before engaging in international carbon trading, there are several requirements outlined in MOEF Regulation 21/2022 that must be met, including:

- b. Following the Carbon Trading roadmap;
- c. Having emission reduction reserves (buffers) in place;
- the MOEF; and
- e. Obtaining authorisation from the MOEF.

a. The NDC target in the specific sub-sector has been achieved;

d. Executing plans and achievement strategies related to NDC in respective sectors and sub-sectors, which must be established and submitted to

In addition to these provisions, there are factors that need to be considered in conducting foreign carbon trading, namely the **corresponding adjustment**. A corresponding adjustment is a recording adjustment made during the first transfer in the international registry system under the UNFCCC and is also recorded in the SRN PPI for recording compatibility in both. It aims to avoid double claims and double counting. This provision is in accordance with Article 19 of MOEF Regulation 21/2022, the transfer of emission reduction achievements from climate change mitigation action must follows these guidelines:

- a. Obtain approval and authorisation from the MOEF;
- b. Business and/or activities along with emission reduction performance must be recorded in SRN PPI;
- c. Make necessary adjustments during the initial transfer in the international registry system under the UNFCCC and record these adjustments in SRN-PPI for both consistency;
- d. The sector or sub-sector as the object of cooperation can be determined by both parties to the partnership;
- e. Measure GHG emissions only in tonnes of carbon dioxide equivalent (tCO2e) to align with the NDC;
- f. Cover all costs and fees based on international decisions under the Paris Agreement;
- g. Based on the agreement of both parties can allocate costs and activities for Climate Change Adaptation activities;
- h. Prepare initial reports, annual updates, and regular information on cooperation results;
- i. Calculate emission reduction performance based on the GHG Emission Baseline and the NDC achievement target in the sub-sector annually and has been assessed by a team of experts appointed by the secretariat of the UNFCCC; and
- j. Comply with other requirements in accordance with the decisions of the conference of the parties to the Paris Agreement and the Climate Change conference.

It is necessary to pay attention that there is a prohibition in PR 98/2021 that a SPE-GRK is prohibited to be an object of a foreign trade rights transfer agreement, without the authorisation of MOEF. Violation of this requirement may cause the relevant SPE-GRK to be revoked.





What is the status of internationally known carbon credit standard (i.e. VCS or Gold Standard)?

Singapore

As Singapore does not have a national carbon registry yet, the tax credits that can be used to offset carbon tax liabilities are limited to those set out in the eligibility list and what is issued by NEA in Singapore. However, MSE has indicated that the Singapore government plans to establish a national carbon registry to facilitate transactions under the Article 6 framework, which will have links to carbon crediting programmes such as VCS and Gold Standard.

Malaysia

Malaysian laws and regulations are silent on the status of international carbon standards, of which voluntary carbon markets are based on. There are no prohibitions from the federal law nor State laws with regards to the usage of international carbon standards. However, presently, there are multiple Malaysian carbon projects which have been registered on the VCS and Gold Standard Impact registries.

Nevertheless, as mentioned earlier, with regards to the BCX, in order to trade on the said Exchange, the only project types which are allowed to be traded on the BCX are nature-based or tech-based solution (removal or avoidance) projects issued by the VCS, as per the VCM Handbook and the BCX's website. Additionally, the vintage of the carbon projects must be from 2016 onwards. With that being said, the BCX has entered into an MOU with Gold Standard, intending to incorporate Gold Standard-certified carbon credits onto the exchange at a later date. At the moment, this inclusion is pending, with only the MOU being finalised.

Indonesia

In line with Article 68 MOEF Regulation 21/2022, carbon unit certificates that are issued by international accreditation institutions can be considered equivalent to local Indonesian standards (SPE-GRK) after going through a process where the MOEF collaborates with related international certification institutions.

The form of cooperation in question is through a process of **mutual recognition**. The MOEF will carry out collaborative efforts related to foreign carbon trading which includes several important steps:

- and/or Indonesian national standards;

- c. statement of the results of the conformity assessment against international standards and/or Indonesian national standards:
- d. creating and implementing mutual recognition cooperation; and
- e. publish certification that is recognised by both parties in SRN PPI.

a. mutual disclosure of information regarding the use of MRV standards;

b. carry out a conformity assessment of the use of international standards





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