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Unlocking Environmental Value, Emissions to Profits – Navigating Carbon Credit, Accounting & Taxability

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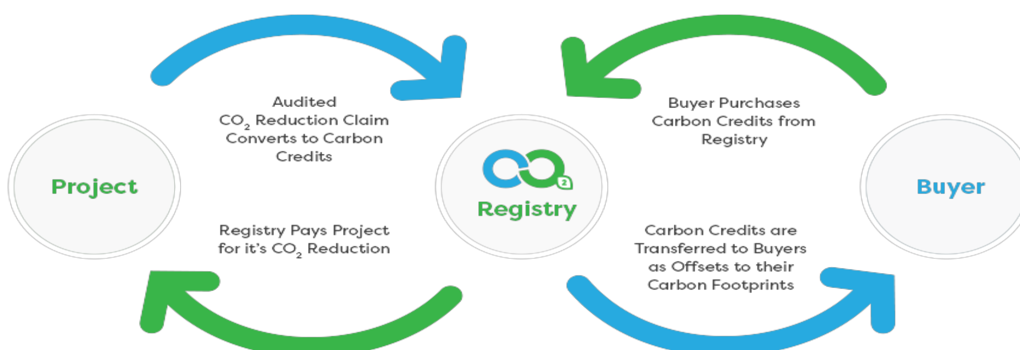
Background:

The rise in Greenhouse Gases ('GHGs'), particularly carbon dioxide (CO2), due to human activities such as industrial processes, deforestation, and fossil fuel combustion, has led to unprecedented levels of global warming and associated environmental disruptions. The introduction of carbon credits stemmed from the urgent need to combat climate change, aiming at incentivizing and facilitating the reduction of GHGs emissions while promoting sustainable development.

Carbon Credits ('Credits' or 'offsets') Overview:

Credits are a key component of efforts to mitigate climate change by reducing greenhouse gas emissions. The credits are a unit of measurement representing the removal or reduction of one metric ton of carbon dioxide (CO2) or its equivalent in other greenhouse gases from the atmosphere.



Evolution (Under Kyoto Protocol and Paris Agreement):

Kyoto Protocol (1997):

Carbon credits emerged as a concept within the framework of the Kyoto Protocol, an international treaty

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aimed at combating climate change. The protocol established legally binding emission reduction targets for developed countries, while allowing them to meet these targets through various mechanisms, including emissions trading.

- Certified Emission Reductions (CERs): CERs are generated through projects under the Clean Development Mechanism (CDM), which is a mechanism established by the Kyoto Protocol. CDM projects are implemented in developing countries aimed at reducing greenhouse gas emissions or sequestering carbon. CERs are issued to project participants after their emission reductions have been verified by an accredited third-party auditor.
- Emission Reduction Units (ERUs): ERUs are generated through projects under Joint Implementation (JI) mechanism, another flexible mechanism established by the Kyoto Protocol. JI projects involve emission reduction in industrialized countries with emission reduction targets. ERUs are also issued to project participants after their emission reductions have been verified by an accredited third-party auditor.

Paris Agreement, a transition to Nationally Determined Contributions (NDCs):

Unlike the Kyoto Protocol, which imposed legally binding emission reduction targets on developed countries, the Paris Agreement, adopted in 2015, introduced a more flexible and bottom-up approach.

- Parties to the Paris Agreement submit Nationally Determined Contributions (NDCs), which outline their voluntary emission reduction targets and mitigation actions. Carbon credit mechanisms under the Paris Agreement are largely based on voluntary cooperation and domestic mitigation efforts, rather than centralized international mechanisms like CDM.
- Article 6 of the Paris Agreement provides a framework for voluntary international cooperation on emission reduction activities. It includes provisions for internationally transferred mitigation outcomes (ITMOs) and cooperative approaches, which could involve the use of carbon credits.

In summary, while carbon credits have evolved under the Kyoto Protocol and Paris Agreement, their fundamental role in incentivizing emission reductions and promoting international cooperation remains central to both agreements, albeit with differences in implementation mechanisms and governance structures. The 2021 United Nations Climate Change Conference (COP 26) notified that CDM would cease in relation to emission reductions occurring after December'2020 and therefore, CERs projects registration/renewal requests are required to be made under the Paris Agreement now.

International Carbon Markets:

- **Compulsory / Compliance Market:** The compulsory / compliance market operates under government-mandated regulatory frameworks aimed at reducing emissions. It typically targets large-scale organisations, such as power plants, heavy industries etc., which are responsible for significant emissions. This market is subject to regulatory oversight and enforcement mechanisms to ensure compliance with emission reduction targets, penalties are applicable for non-compliance. These include CERs through CDM mechanism, ERUs. The United Nations Framework Convention on Climate Change (UNFCCC) validates and issues CERs and ERUs.
- **Voluntary Carbon Market:** This market allows companies, organizations, and individuals to voluntarily offset their carbon emissions and contribute to climate action. This is often driven by corporate social responsibility (CSR) objectives, sustainability goals, or stakeholder pressure. The projects include renewable energy, reforestation, agroforestry, bio-cookstoves etc. and often emphasize on community-based projects, biodiversity conservation etc. Voluntary credits are verified and certified by independent third-party standards, such as the VERRA formerly Verified Carbon Standard (VCS), Gold Standard, or Climate, Community & Biodiversity (CCB) Standards. The Greenhouse Gas Certification (GCC) also plays a significant role in certifying carbon credits, ensuring the credibility of offset projects.
- **Carbon Exchanges:** The Carbon Credits can be exchanged, bought, and sold by businesses at prevailing market price, which is determined, inter alia, by demand and supply factors. At Present, carbon credits are traded at the Chicago Climate Exchange, the European Climate Exchange, and the Multi-Commodity Exchange of India (MCX).

Indian Context: The Energy Conservation Act, 2001 was enacted to provide for efficient use of energy

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and its conservation, & for matters connected therewith. The Amendment Bill 2022 envisages provision to develop India's own carbon trading market, it was passed by Parliament and came into effect from 01 January 2023. This includes provisions to “Specify the carbon credit trading scheme”.

Accounting Treatment of Carbon Credits under Indian Accounting Standard (Ind-AS):

ICAI, to clarify on accounting for credits, has issued guidance note on accounting for self-generated certified emission reductions (GN-CER) which requires generating entity to recognize credits as asset only after communication of credit from validation authority. Though this guidance recognized that credits may meet the definition of intangible asset (covered by Ind-AS 38 currently), but since the generator holds it for sale in ordinary course of business, they should be classified as inventory under AS-2, Valuation of Inventories. For IFRS purposes, the IFRC Interpretation Committee (IFRIC) had issued IFRIC interpretation 3 Emission Rights, which was later withdrawn. Thus, the accounting for credits is still a matter of debate.

Basis the aforesaid discussion on the subject and nature of asset (carbon credits), below-mentioned accounting standards can squarely be applied for accounting of credits.

Under Ind-AS, one may take an interpretation of treating credits accounting under ***Ind-AS 20, Accounting for Government Grants and Disclosure of Government Assistance*** as grant is given (verified, certified) by an international agency. Ind-AS 20 provides that Government grants, including non-monetary grants at fair value, shall not be recognized until there is reasonable assurance that: (a) the entity will comply with the conditions attaching to them; and (b) the grants will be received.

Ind-AS 2, *Inventories* states that Inventories are assets held for sale in the ordinary course of business or in the process of production for such sale.

Ind-AS 115, *Revenue from Contracts with Customers* prescribes that an entity shall recognize revenue when the entity satisfies a performance obligation by transferring a promised good or service (i.e., an asset) to a customer, i.e., when customer obtains control of the asset.

Recognition of Carbon Credits:

Step 1: Per Ind AS-20, carbon credits being in similar nature can be recognized as Governments grants once there is a reasonable assurance that it has complied with all the conditions attached to them (like actual emission reduction on power production in power company) and credits will be received. It will be recognized on entitlement to an entity, i.e., registration with authorities. Inventory will be created and credit will be to Other Income (Grant Income).

Step 2: Per Ind AS-2, the same will subsequently be measured at lower of cost or net realisable value.

Step 3: Per Ind-AS 115, on sale of CERs / contract execution, inventory will be transferred to cost of goods sold and revenue will get recognized at the contract price.

Taxability of Carbon Credits:

I. Income-tax

The tax treatment of credits is an issue that has been a matter of considerable debate. The issues may revolve around point of taxation (entitlement or sale), capital vs. revenue, specific rate of taxation, setting off expenses, deduction, or unabsorbed loss / depreciation, TDS / TCS on transfer.

Controversy around Business Income vis-à-vis Capital Receipt

The Hyderabad Tribunal in landmark case of My Home Power Ltd. v. DCIT [TS-820-ITAT-2012(HYD)] held that carbon credits are not created due to carrying on of business but are generated out of environmental concerns and hence are capital receipts and cannot be taxed as revenue receipts. The Andhra Pradesh High Court upheld the decision passed by the Tribunal. Similar judgements have been passed in favor of assessee by Karnataka High Court in Subhash Kabini Power Corporation

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Ltd. [TS-236-HC-2016(KAR)] and by Gujarat High Court in DCIT v. Alembic Limited [TS-6898-HC-2017(GUJARAT)-O]. Matter is pending before Hon'ble Supreme Court in case of Tanjore Power Co. Limited [TS-5523-HC-2021(MADRAS)-O] and in Wescare (India) Ltd. [TS-6640-HC-2021(MADRAS)-O].

Legislative Amendment

Section 115BBG of the Income-tax Act 1961 ("the Act") provides taxability of income by way of transfer of carbon credits @10% plus applicable surcharge and cess without taking any allowance of expenditure or deduction. It also defines the carbon credit. The term 'carbon credit' in respect of one unit shall mean reduction of one tonne of carbon dioxide emissions or emissions of its equivalent gases which is validated by the United Nations Framework on Climate Change, & which can be traded in market at its prevailing market price. The section is introduced w.e.f. assessment year 2018-19.

Conclusion

- Taxability – From the aforesaid background and international markets concept, it seems that CERs obtained through CDM mechanism and ERUs will get covered u/s 115BBG of the Act as these credits has been validated by UNFCC framework. Tax will be applicable @10% without offsetting any expenses. However, voluntary emission reduction ('VERs') (credits obtained under voluntary framework) seems not covered specifically u/s 115BBG, therefore, a view is possible that same is not taxable u/s 115BBG. VERs will still need to pass the test of capital vs. revenue receipt and the revenue may treat it under normal provisions.
- Set-off against unabsorbed loss/depreciation – The restriction prescribed u/s 115BBG is only towards claim of expenditure/allowance on income from transfer of carbon credit. The same does not provide any restriction towards setting it off against unabsorbed losses/ depreciation.
- Withholding tax/TDS/TCS applicability @0.1% – Section 194Q/Section 206C(1H) of the Act provides for deduction of tax or collection of tax at source on sale of any goods the value of which exceeds fifty lakh rupees in a year, subject to other prescribed conditions. We understand that carbon credits is akin to goods, therefore, TDS / TCS provisions are applicable.
- Point of Taxation – As per Income Computation and Disclosure Standards ('ICDS') IV-revenue recognition, revenue shall be recognized on transfer of risks and rewards and reasonable certainty of collection. Further, ICDS VII – Government Grants states that Carbon Credits may be recognized when there is a reasonable assurance that (a) the entity will comply with the conditions attached to them; and (b) the grants will be received. The "conditions" referred above in carbon credit to be met when actual emission reduction has realized (registration of credits), and entity has reasonable assurance that the reductions will be confirmed during the project verification and certification process by the respective independent authority.

Accordingly, Income is required to be offered to tax on recognition basis entitlement / inventory creation (Step 1 of accounting treatment) net of realisable value at year end (post giving effect to ICDS II on valuation of inventories). Any value adjustment on account of actual sales would be offered to tax or allowed as claim against taxable income. The tax treatment here is in line with the accounting treatment.

II. Goods and Services Tax (GST) Applicability

- For Levy of GST on carbon credits, it should qualify as either supply of goods or supply of services. Goods has been defined in GST laws as to mean every kind of movable property other than money and securities but includes actionable claims. Central Board of Indirect Taxes and Customs (CBIC) in its circular no. 46/20/2018 clarified that renewable energy certificates and similar documents are taxable as goods. Therefore, transfer of carbon credits can qualify as transaction for supply of goods and GST is leviable on it.
- It will fall under Chapter heading 4907 and GST@18% tax rate is applicable.
- It may be exempted in case of exports being place of supply being outside India, however, this is also subject matter of debate due to some unfavorable judicial precedents. The Government should issue some clarifications in this regard to avoid ambiguity around taxability of credits to ensure seamless flow of sustainable transactions.

Concluding Remarks:

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The introduction of carbon credits represents a pivotal step in addressing the complex and multifaceted challenge of climate change. It offers a promising pathway towards more sustainable and equitable future for all. However, the framework also faces several challenges such as administrative, regulatory uncertainty, market volatility among others that impact its effectiveness which needs to be eliminated to achieve short-term and long-term sustainable goals.

Carbon credits till now is a relatively evolving concept, it’s accounting, or tax treatment may be subject to interpretations and potential litigation, which could ultimately be resolved in higher forums.

Disclaimer: The information or views in the above article is solely the views of the author and should not be construed as professional advice or guidance on accounting, taxation, or legal matters related to carbon credits.

(The authors have professional experience of more than a decade and specialise in finance, regulatory issues and deals)

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