Headline: Carbon Markets - The Road Ahead for expedited Climate Action**:** Puneet Katyal

Strap:

Navigating for a sustainable tomorrow, Puneet Katyal, CEO of Viviid Emissions Reductions Universal, highlights the firm's unique approach to environmental commodity management and the potential that Carbon Markets behold for expeditious Climate Action. This comes with a call to action for Global Policy Makers who have currently congregated at World Economic Forum at Davos

Story:

In an insightful conversation with BW Businessworld, Puneet Katyal, CEO of Viviid Emissions Reductions Universal, sheds light on the firm's remarkable journey in environmental commodity management including carbon credits and IRECs among several others. As a trailblazer in the sector, Viviid Emissions Reductions has witnessed substantial growth, surpassing 4.5 GW and aiming for 10 GW by 2025. Katyal emphasises the unique mandate that sets them apart, enabling the firm to transact carbon instruments on behalf of clients and channel significant proceeds toward sustaining green projects and fostering social co-benefits. He discusses the macro environment in which the Voluntary Carbon Markets operate. Puneet Katyal takes our readers through the hits and misses of COP 28 as he calls upon the global leaders currently congregated at the World Economic Forum (WEF) in Davos to work upon the promises that remain unfulfilled:

Here are the Excerpts:

Please take our readers through the work that Viviid Emissions Reductions Universal does?

As one of India's most established Environmental Commodity Management Firms with over two decades of experience, we've witnessed substantial growth from 2.0 GW to over 4.5 GW in the past two years, with a projected target of reaching 10 GW by 2025. Specialising in end-to-end environmental commodity management, we serve clients owning diverse projects, including Renewable Energy, Nature-Based Solutions, Industrial Process Efficiency Enhancement (e.g., Waste Heat Recovery), Biomass Projects, Municipal Solid Waste Management, Plastic Waste Reduction and Water Recycling.

What sets us apart is our unique mandate, allowing us to transact Carbon Instruments and Environmental Commodities, including IRECs, on behalf of our clients. Notably, a significant portion of the proceeds from these transactions contributes to sustaining Green Projects and fostering co-benefits such as Rural Community Development, Women Empowerment, Child Rights, Decent Working Conditions, Livelihood Generation and Education for All. This distinctive approach makes us globally unique.

In the face of current global challenges, we are committed to operating at full capacity, effectively managing reduction, removal and avoidance categories of environmental commodities/ carbon credits. Our overarching goal is to support entities worldwide in navigating towards a scientifically ascertained net-zero transition, reinforcing swift climate action for a carbon-neutral world.

Has India had any experience with the carbon markets in the past?

India's engagement with market-based climate policy instruments, including the CDM, PAT scheme and RECs trading, has been extensive. With 1,685 registered projects and 276 million CERs issued under the CDM by March 2022, India ranked second globally after China. The PAT scheme, initiated in 2012 to enhance efficiency in energy intensive sectors, initially faced challenges but played a pivotal role in reducing GHG emissions and laid the

groundwork for a new carbon market framework. Now committed to achieving net-zero by 2070 and meeting Nationally Determined Contributions (NDC) targets, India is all set to operationalise domestic carbon market, the Carbon Credit Trading Scheme (CCTS), aligning with its ambitious goals of a 45 per cent emissions intensity reduction by 2030 and increasing non-fossil power capacity to 50 per cent by 2030.

As India is on course to launch the National Carbon Market, how should it leverage its existing experience for making the endeavour successful? Please throw some light on the upcoming Indian Carbon Market.

The Perform, Achieve and Trade (PAT) scheme has significantly enhanced awareness and capacity building on energy efficiency, training over 45,000 professionals nationwide. Accredited Energy Auditors ensured the accuracy of reported energy savings, conducting audits and verifying consumption data. Non-compliance penalties, including additional Energy Savings Certificates (ESCs) purchase obligations and financial penalties were imposed.

Aligned with national energy efficiency policies, the PAT scheme, under the National Mission for Enhanced Energy Efficiency and the Energy Conservation Act, received support from regulatory bodies like the Bureau of Energy Efficiency (BEE) and State Designated Agencies (SDAs). ESCs, traded on Indian Energy Exchange (IEX) and Power Exchange of India Ltd (PXIL), provided a market-based approach for achieving energy-saving targets. Over 31 million ESCs were traded by 2019, with fluctuating market prices from Rs 200 to Rs 1,200. Trading resumed in February 2023 for the second PAT cycle with a floor price of Rs 1,840.

The PAT scheme fostered collaboration through industry forums, workshops and conferences, facilitating knowledge sharing and successful replication of energy-saving measures.

To meet enhanced NDC targets, the government initiated the Indian Carbon Market (ICM), a unified national carbon market mechanism. This single-market approach aims to reduce transaction costs, improve liquidity, enhance understanding, streamline procedures and mobilise mitigation opportunities through private and public entity demand for emission reduction credits. The ICM addresses the need for targeted capacity development and efficient accounting and verification procedures. The Carbon Credit and Trading Scheme in India is designed as a Baseline-and-Credit System (BAC) and will set emissions intensity targets for the obligated entities. In the upcoming compliance mechanism under the Indian Carbon Market, obligated entities, which also include Designated Consumers from the on-going PAT scheme shall be required to reduce GHG emission intensity in terms of tonne of carbon dioxide equivalent (tCO_2e) per unit of equivalent product. Obligated entities that reduce their emissions below the baseline will be issued carbon credit certificates (CCCs), which can be sold to other obligated entities who exceed their emissions baseline and need to purchase CCCs to cover their shortfall.

Is India adequately geared to take up the onslaught of measures like Carbon Border Adjustment Mechanism and other measures that may come up in future?

India is establishing its own carbon trading system to counter the Carbon Border Adjustment Mechanism (CBAM) by the EU. This move aims to push high-emission industries towards decarbonisation, mitigating the impact of CBAM. In 2022, 27 per cent of India's iron, steel and aluminium exports worth USD 8.2 billion went to the EU. India seeks a mutual recognition agreement for its Carbon Credit and Trading System (CCTS) certificates. This positions India to reciprocate such conditions on countries adopting similar measures. CBAM, viewed as premature for developing nations, challenges the fundamental principles of the Paris Agreement particularly principles of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC), The EU's CBAM, introduced in 2022, raises concerns about climate action motives, especially as developed nations have still not fulfilled the commitment to mobilise USD 100 billion annually for climate action in developing countries. The adoption of CBAM is seen as potentially distorting trade practices. As 2030 and 2050 climate goals approach, more countries may adopt similar levies. The solution lies in working progressively to reduce carbon emissions and enhance process efficiencies to combat these challenges.

What were the hits and misses of COP 28 that concluded in Dubai Mid-December?

In 2023, the record-breaking heat due to climate change overshadowed rather tepid discussions about Article 6.4 and Carbon Market Mechanisms at COP 28 Dubai. Notably, agreements were reached to triple renewable energy targets and double energy efficiency goals by 2030. The Global Stock-take emphasised transitioning from fossil fuels, marking a historic move in climate negotiations. Despite Global South's push for a systematic phase-out of fossil fuels, the final text lacked these terms. COP 28 signifies the "Beginning of the End" for the Fossil Fuel Era. However, 12 months and numerous meetings later, disagreements on carbon removals, methodologies, transparency and climate ambition left the proposed rules for a new Global Carbon Market unadopted. The breakdown in talks necessitates revisiting the drawing board for rule-makers. Currently as the Davos World Economic Forum is underway, I wish to remind the global policy makers to make the most till November for successfully winding up the issues that could not be crystallised in COP 28. All eyes now on COP 29 to be held in Baku later this November.

To meet the UN and governments' deadline for full market mechanism development by January 2026, policymakers must accelerate transparency and integrity efforts, drawing on foundational work from the likes of VCMI and IC-VCM. COP28's lack of decisions on carbon market rules, under Article 6 of the Paris Agreement, leaves crucial questions on international carbon trading unanswered.

The World Economic Forum 2024 at Davos is a potent policy advocacy platform for sustainable development and climate change mitigation as these are the two most pressing issues confronting Humanity. I sincerely hope that all efforts hereon add up to a successful COP 29 in Azerbaijan later this year.

With no clarity on the operationalisation on Article 6.4 Mechanism this time around at COP 28 in UAE, do you see any opportunity for the Voluntary Carbon Markets (VCMs)? Can you also contextualise this with reference to India's buoyant role in the Voluntary Carbon Market?

Despite the delay in achieving a consensus on the Article 6.4 Mechanism at COP 28, VCMs can persist without corresponding adjustments for now. The absence of a UN Supervised Mechanism offers Project Developers an opportunity to supply high-quality carbon credits, allowing buyers to continue meeting their net-zero plans. VCMs, the sole alternative in the current scenario, benefit from existing registries and mechanisms. While Article 6 of the Paris Agreement doesn't regulate VCMs, its adoption has altered their operational context. Governments, facing complexities in creating their standards, can utilise established standards with ready-made rules. In 2022, voluntary buyers retired 156 million carbon credits, with renewable energy surpassing natural climate solutions in issuances. Notably, Verra's Verified Carbon Standard (VCS) accounted for almost 70 per cent of credits, emphasising the significant role of independent crediting standards. The authority given to governments for making corresponding adjustments in their National Registries remains a pivotal factor affecting the future role of VCMs.

In the year 2021, the voluntary carbon market grew at a phenomenal pace, reaching USD 2 billion - four times of what it was a year back i.e., 2020. The pace accelerated in 2022. By 2030, the voluntary carbon market is expected to reach anywhere between USD 10 billion and USD 40 billion. Research has proven beyond reasonable doubt that Carbon Markets expedite Climate Action.

Any request that you wish to make to the Government of India as it stands on the tarmac to operationalise the National Carbon Market.

I would like to congratulate the Government of India for announcing the National Carbon Market and also issuing the guidelines for the operationalisation of the Compliance Mechanism while also notifying the Offset Mechanism. I feel collaborative development of the carbon market framework is essential, with private sector's involvement ensuring adaptability and innovation.

Coordination among government agencies, clarity on the compliance market, phased implementation, effective governance and monitoring are keys. The National Designated Authority for the Paris Agreement (NDAIAPA) should facilitate the utilisation of unsold CERs towards India's NDC and the transition of CDM projects to the Article 6.4 mechanism. Linking India's compliance market with international carbon market under Article 6 of the Paris Agreement is vital for global recognition, attracting investments and realising significant revenues, but requires increased NDC ambition and phasing-out of inefficient subsidies.