Glossary of Terms related to Carbon Measurement and Markets

(from Ecosystem Marketplace Insights Report, September 2021**: Market in Motion: State of the Voluntary Carbon Markets 2021)**

Brokers: intermediaries who do not take ownership of offsets, but facilitate transactions for a fee between project developers and end users, between project developers and retailers, and/or between retailers. When given the opportunity, some retailers will also perform this role, but generally not at significant volumes.

Buyers: individuals or entities who purchase offsets either for their own internal use (called "end-buyers") or for re-sale to another buyer (called "intermediaries"). Intermediaries, such as retailers, purchase offsets with the intention to resell. In contrast, end-users purchase offsets to count against their emissions and typically retire any purchased offsets to signal that those offsets are no longer available for sale.

Carbon Credits / Carbon Offsets (also shortened to "Offsets" and/or "Credits"): A carbon offset or carbon credit is an activity designed to compensate for the emission of anthropogenic greenhouse gases into the atmosphere. It may be regulatory (e.g., eligible for a compliance program) or voluntary. Within carbon and greenhouse gas markets, offsets specifically refer to one metric ton of carbon dioxide equivalent reduced, avoided, or sequestered by an entity to compensate for emitting that ton elsewhere. Throughout this report, we measure offsets in metric tons of carbon dioxide equivalent (tCO_2e), or millions of tons ($MtCO_2e$).

Co-benefits: additional environmental, social, or other benefits arising from a carbon project that are quantified based on metrics or indicators defined by the project developer, a co- benefits certification program, or third-party carbon project standard that accounts for both climate and co-benefits. Some registries and standards enable co-benefits certification to be "tagged" onto issued carbon offsets if quantification and verification of co-benefits are not already embedded in a carbon project standard.

Compliance markets: the result of government regulation to reduce greenhouse gas emissions, and allow regulated entities to obtain and surrender emissions permits (allowances) or offsets in order to meet predetermined regulatory targets.

End buyers: buyers who purchase offsets with the intention of retiring them. Offsets will no longer be sold after transferring to an end-buyer. This contrasts with retailers, who purchase offsets with the intention to resell them. End buyers are also referred to in this report as "end-users."

Issuance: the final project stage which occurs after third-party auditors (often referred to as a VVB, Validation/ Verification Body) have guaranteed a project has avoided or sequestered carbon dioxide or its equivalent. If a project using an approved methodology garner approval from a VVB and a third-party standard, then they may be eligible for issuance. Any offsets issued to the project owner come with a unique serial number and are listed in a registry that monitors any ownership transfers or offset retirement. Issuance takes place once a carbon offset project has been validated, verified, and undergone other required processes.

Methodology: requirements for carbon offset projects for calculating emissions reductions and or removals. Project developers can either use pre-existing methodologies or develop new ones. Voluntary offset standards each have a list of approved methodologies that they accept.

Permanence: principle that carbon offsets must permanently remove the carbon dioxide or equivalent emissions from the atmosphere or oceans. For forest carbon, a reversal of carbon storage can happen from human activity (e.g., logging) or unforeseen natural events (e.g., forest fires, pest outbreaks).

Primary market: the initial transaction of offsets from the project developer to the first buyer in line – this can be an offset retailer or broker (i.e., the “secondary market”) or a buyer of offsets for “end use” (i.e., end user or end buyer) in the voluntary or compliance carbon offset markets.

Project: a site, or suite of sites, where developers seek to quantify emission reductions and or removals to produce tradable climate reduction certificates, called offsets.

Project developer: organizations or individuals that create carbon offset projects, beginning with the initial Project Design Document all the way to issuance. Project developers include organization’s that are the project owner, partner organizations involved in project implementation, project financiers/investors, or others.

Reduced Emissions from Deforestation and Forest Degradation (REDD+): project types in areas where existing forests are at risk of land-use change or reduced carbon storage. The projects focus on conserving these forests before they are degraded or deforested, resulting in the avoidance of a business-as-usual scenario that would have produced higher emissions. Emission reductions occur primarily through avoided emissions.

(Avoided Planned) REDD+: projects that seek to protect forests that have been legally authorized to convert to non-forest land.

(Avoided Unplanned) REDD+: projects that seek to protect forests from unclear or multiple threats, such as subsistence agriculture, livestock grazing, collection of fuelwood charcoal, illegal logging, and small-scale extractive activities.

Reduction Credits: carbon offset that represents a reduction in business-as-usual emissions associated with a project activity.

Registry: body that issues, holds, and transfers carbon offsets, which are given unique serial numbers to track them throughout their lifetime. Registries can also retire offsets. In compliance markets, each market has its own designated registry. In the voluntary market, independent registries exist.

Removal Credits: carbon offset that represents the creation of carbon pools/sinks that sequesters carbon dioxide from the atmosphere.

Retirement: the point at which an organization permanently sets aside a carbon offset in a designated registry, taking the carbon offset's unique serial number out of circulation. Retiring offsets through a registry ensures that they cannot be resold. This is of particular importance if the buyer's intent is to claim the offset's emissions reductions against a carbon reduction or neutrality target.

Secondary market: sales of offsets among market intermediaries or between market /intermediaries and end buyers or end users.

Standard: set of project design, monitoring, and reporting criteria against which carbon offsetting activities and/or projects' environmental and social co-benefits can be certified or verified. In the voluntary markets, a number of competing standard organizations have emerged with the intent to increase credibility in the marketplace. More recently, national and sub-national regulated markets have also designed standards specific to regional needs for voluntary use.

Supplier: an organization that sells carbon offsets, such as a project developer, retailer, or broker.

Transaction: action that occurs when offsets are contracted by a buyer, regardless of whether suppliers agree to deliver offsets immediately or in the future.

Validation and or Verification Body: body that ensures rules and requirements of an individual methodology, third party standard and local and jurisdictional laws are being adhered to at time of project registration and verification event.

Vintage: year in which emissions reductions occur. The vintage of the offsets may not necessarily match the year in which the offsets are transacted—and the vintage year may be in the future.

Voluntary carbon markets: the collective voluntary transactions tracked worldwide. There is no centralized single marketplace for voluntary transactions but rather many discrete transactions and, in some cases, jurisdictional or program-related markets (such as the United Kingdom's Woodland Carbon Code).