



Ecosystem Marketplace
A FOREST TRENDS INITIATIVE



Unlocking Potential

State of the Voluntary Carbon Markets 2017

Overview

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Ecosystem Marketplace, an initiative of the non-profit organization Forest Trends, is a leading global source of information on environmental finance, markets, and payments for ecosystem services. As a web-based service, Ecosystem Marketplace publishes newsletters, breaking news, original feature articles, and annual reports about market-based approaches to valuing and financing ecosystem services. We believe that transparency is a hallmark of robust markets and that by providing accessible and trustworthy information on prices, regulation, science, and other market-relevant issues, we can contribute to market growth, catalyze new thinking, and spur the development of new markets, and the policies and infrastructure needed to support them. Ecosystem Marketplace is financially supported by a diverse set of organizations including multilateral and bilateral government agencies, private foundations, and corporations involved in banking, investment, and various ecosystem services.

Forest Trends works to conserve forests and other ecosystems through the creation and wide adoption of a broad range of environmental finance, markets and other payment and incentive mechanisms. Forest Trends does so by 1) providing transparent information on ecosystem values, finance, and markets through knowledge acquisition, analysis, and dissemination; 2) convening diverse coalitions, partners, and communities of practice to promote environmental values and advance development of new markets and payment mechanisms; and 3) demonstrating successful tools, standards, and models of innovative finance for conservation.

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Acknowledgments

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Foreword

Last year, the earth surpassed a critical marker in our fight against climate change. For the first time in human history, scientists recorded more than 400 parts per million (ppm) of carbon dioxide (CO₂) in the atmosphere. The “safe” level of CO₂ concentration in the atmosphere, according to most scientists, is 350 ppm. In 2015, leaders from around the globe came together to negotiate the Paris Climate Agreement, where they agreed on goals and strategies to reduce emissions and curb climate change. While the Agreement represented a remarkable achievement, negotiators still need to debate how to operationalize the agreement, and countries still need to figure out how to meet their individual commitments to reduce emissions under the Paris Agreement.

In the meantime, concerned citizens, corporations, and sub-national leaders have already started and will continue to combat climate change. Many of these actors have voluntarily measured and reduced their emissions by investing in renewable energy, energy efficient technologies, and more. They have purchased carbon offsets to close the gap on any emissions they currently can’t reduce on their own—and in doing so, they have been supporting the climate and a host of other biodiversity, employment, and health benefits associated with many of these carbon offset projects.

Forest Trends first started tracking these voluntary offset purchases in 2006 and since then, has seen the products and buyers in this space become increasingly sophisticated. As a result, we have seen the voluntary offset markets serve as a source of innovation and inspiration, incubating projects and ideas that are too unproven for current compliance markets. We have seen third-party standards emerge as a way to verify offsets with consistency and legitimacy.

Yet going forward, we need to unlock the full potential of carbon markets in order to quickly and significantly combat dangerous climate change. As countries shift from debating climate change to implementing their proposed solutions, voluntary offsetting can help tackle climate change now and explore new avenues of emissions reductions that may be included in compliance programs in the future.

To accomplish these goals, activity on the voluntary markets first needs to be tracked and recognized. This annual report attempts to facilitate transparency and a flow of information about non-regulated efforts to combat climate change and provide an understanding of their accomplishments. This requires outreach to hundreds of organizations willing to take time to complete our surveys and provide market insights on actual offset transactions valued by voluntary buyers. Despite tremendous efforts to contact and collect data from as many market participants as possible, we caution readers that our numbers should be viewed as conservative. We would like to thank all the companies and organizations who graciously shared their data for helping to foster a more transparent and effective marketplace.

Finally, we would like to encourage all readers of this report to take action against climate change. As findings in the report show, we need scale up our efforts to meet this gap and try to reverse emissions to 350 ppm or fewer. To accomplish this, everyone needs to step up from individuals to countries. It’s all hands on deck in a post-400 ppm world.



Michael Jenkins

Founding President and CEO
Forest Trends

Introduction

Following record-setting temperatures last year, the need for action against climate change is higher than ever. But even the most concerned individuals, corporations, and states will still emit **greenhouse gases (GHGs)**¹ in an industrial society—despite their best efforts to install more efficient light bulbs, use low-carbon transportation, or otherwise try to lower their footprint. After reducing GHG emissions as much as possible internally, organizations need to support low carbon activity externally—typically by purchasing carbon **offsets**.

A carbon offset represents one **tonne of carbon dioxide equivalent (tCO₂e)** that *hasn't* been emitted into the atmosphere. Offsets come from on-the-ground **projects** and activities to reduce carbon emissions; they may even use many of the same activities listed above—for example, by switching to more sustainable fuel sources, or by planting trees that soak up CO₂ from the air.

But offsets differ from just any low carbon activity because their impact is calculated, measured, and typically verified by a third-party. In **compliance markets** (in those that allow offsets), a government agency makes the rules about what types of offsets are permitted and with what rigor they must prove to be included in the market. In contrast, offsets sold on the **voluntary carbon markets** typically follow rules prescribed by one of a handful of voluntary **standard** bodies.

Compliance offsets are usually allowed in limited quantities because they are able to provide cheaper alternatives than emissions reductions within regulated sectors and therefore can act as a cost-containment mechanism. In unregulated sectors, concerned citizens and organizations choose to offset emissions reductions in the absence of government regulation anyway. These purchases are voluntary.

Every year, since 2006, Forest Trends' Ecosystem Marketplace has distributed surveys to our network of **project developers**, investors, **retailers** and **brokers** to collect information about **transactions** during the previous year—along with detailed information about the sold offsets, including project type, location, and standard. These transactions can be grouped into **primary market** transactions (comprised of offsets sales from project developers to intermediaries or directly to **end buyers**) and **secondary market** transactions (comprised of offset sales among intermediaries or from intermediaries to end buyers).

¹ All terms in bold green text are defined in the Glossary in Appendix 2.

The Voluntary Carbon Offset Lifecycle

To ensure that emissions reductions are real and “additional,” meaning they would not have been achieved without carbon finance, the vast majority of voluntary carbon projects now use third-party verified standards to approve their offsets. These standard bodies require a number of steps before a project developer can turn a project idea into reality.

Moving a project from conception to final **issuance** of offsets takes two and a half years on average.* Common steps required by some—though not all—standard bodies appear in Figure 1, starting with a **Project Idea Note** that assesses the feasibility and risks of a project and a **Project Design Document** that lays out how the project will calculate and reduce or avoid emissions. A third-party auditor then “**validates**” these assumptions, and, after project implementation and monitoring, another audit process called “**verification**” assesses the delivery of greenhouse gas mitigation.

Offset project **registries** then issue each tonne of emissions reductions (now an eligible offset) a unique serial number that can be transacted multiple times before an owner can choose to “**retire**” it. A retired offset is flagged as unsellable on the registry so that the end buyer can claim the offset’s impact.

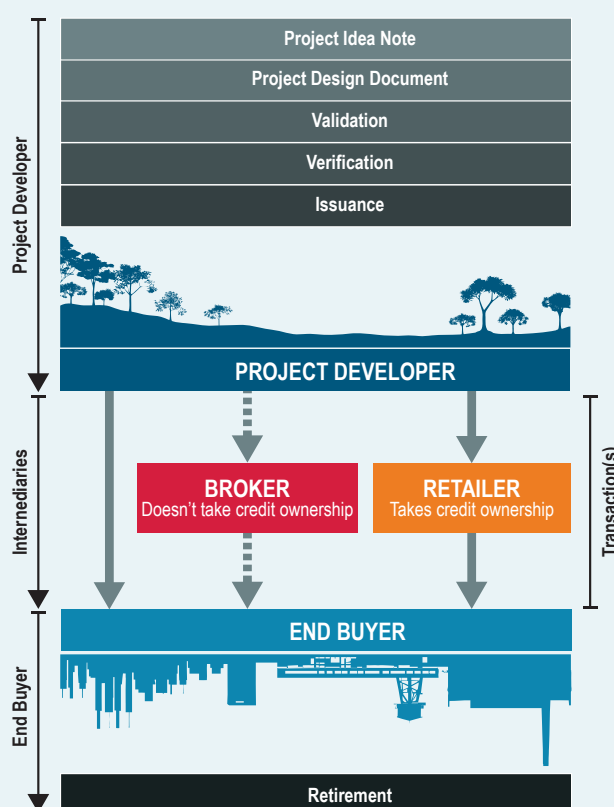
Different standards certify different project types and use different processes for achieving offset issuance. Some standards also include requirements that the project not only reduce emissions, but also include additional benefits (called **co-benefits**), such as employment or training for local populations, the preservation of biodiversity, or other non-carbon impacts.

Selling a Voluntary Offset

Once a project developer is ready to market offsets, they must find a **buyer**. This can be a complicated process since there is no single marketplace for voluntary offsets. Some project developers develop their own marketing and advertising teams to identify and promote their project directly to end buyers. Others prefer to sell their offsets to intermediaries like a broker or a retailer, who takes responsibility for marketing those offsets to end buyers.

When an offset is sold, the transaction marks a transfer of ownership. An offset can be resold, e.g., by retailers who purchase offsets from project developers and resell them, but once it has been permanently sold to an end user who wants to claim the offset’s impact, it can no longer be resold. To ensure that it isn’t, this offset must be listed as retired on a registry that keeps track of offsets’ issuance and retirement.

Figure 1: The Offset Cycle, from Project Development to Retirement



*Goldstein, Allie and Gloria Gonzalez. 2014. *Turning over a New Leaf: State of the Forest Carbon Markets 2014*. (Washington, DC: Forest Trends, 2014).

Key Findings 2016

Despite affordable prices, market volume decreased this past year.

The overall amount of carbon offsets bought and sold on the voluntary carbon markets dropped 24% in 2016 from the previous year. We tracked a total of 63.4 million (M) tons of carbon dioxide equivalent, compared to 84.1 MtCO₂e traded in 2015, earning a total market value of \$191.3M.²

Prices remained highly variable and differed based on particular project location, standard, project type, or other attributes.

Prices ranged from less than \$0.50/tCO₂e to more than \$50/tCO₂e. For example, wind offsets from Asia were bought and sold at an average of \$0.7/tCO₂e, while afforestation/reforestation offsets from Africa transacted at an average of \$6.7/tCO₂e. The average price across all transactions was \$3.0/tCO₂e. In general, prices were lower on higher volumes traded.

Most offsets sold came from wind, REDD+, or landfill methane projects, but smaller or more community-focused project types were more prominent on the primary markets.

Reduced Emissions from Deforestation and Forest Degradation (REDD+), community-focused energy efficiency, and clean cookstove projects produced most of the 18.5 MtCO₂e offsets sold by primary market³ participants. In contrast, most of the 44.8 MtCO₂e offsets sold by brokers, retailers and other intermediaries were from REDD+, wind and landfill methane projects. Many more project types sold offsets on both primary and secondary markets, though in smaller amounts.

Table 1: Market Size by Primary and Secondary Market, 2016

MARKET:	TOTAL	PRIMARY	SECONDARY
VOLUME:	63.4 MtCO ₂ e	18.5 MtCO ₂ e	44.8 MtCO ₂ e
VALUE:*	\$191.3M	\$76.0M	\$107.0M

* Market value is volume-weighted.

Notes: Based on market data provided by 139 organizations. Respondents did not always respond to all survey questions; differences in the totals (for example, between the total and the sum of primary and secondary market volume) can be attributed to this. An additional 61 organizations responded to the survey but did not provide voluntary offset transaction data. These organizations either did not transact any offsets in 2016, despite looking for buyers, or only sell offsets to compliance markets now.

While nearly half of all offsets came from Asia, buyers placed higher value on offsets from Africa, Latin America, and North America.

Suppliers transacted 21.5 MtCO₂e offsets from Asia, which comprised 46% of all offsets transacted worldwide. However, these offsets sold at lower average prices (\$1.6/tCO₂e) than in many other regions, leading to a total

² All monetary values are reported in US\$ (\$) unless otherwise noted.

³ Note that in our research, we track activity in both the primary and secondary offset markets, as an indicator of total market activity. However, the emissions reduction impact is the volume of offsets sold on the primary market.

value of \$35M (30% of the total value tracked from all project locations). North America (primarily the United States) generated the second-largest number of offsets, totaling 10.1 MtCO₂e for a total value of \$29M. Meanwhile, offsets transacted from Latin America (5.8 MtCO₂e) and Africa (5.8 MtCO₂e), home to more forestry and land-use projects, represented total values of \$22M and \$24M respectively.

It's a buyers' market—almost as many offsets remain unsold as sold.

It's not easy for many organizations to sell an offset. Since there is no centralized marketplace, finding **buyers** for carbon offsets can be an exercise in patience and persistence. Although we do not know how many offsets were produced in 2016, we do know that organizations produced many more offsets than they sold, as they reported 56.2 MtCO₂e of unsold offsets in their portfolios—some of which were still languishing from years past.

While total voluntary offset emissions reductions remain small compared to what's needed to combat climate change globally, actions on the voluntary markets have a ripple effect into compliance markets.

Despite the comparatively small volume, voluntary offsets have an outsized impact on compliance markets and on emissions reductions activities in general. Voluntary markets are a valuable testing ground for new types of emissions reductions and have also drawn important attention to non-carbon impacts from projects like biodiversity, employment, health and more (called “co-benefits”).



Volume of Offsets Transacted

The volume of offsets sold represents total voluntary market activity (and by extension, market health). Yet on the primary market, volumes sold are also indicative of climate impact as well. For example, if many offsets are sold, more project developers may be interested in entering the market, thus driving up global emissions reductions. Lower volumes sold mean that sellers couldn't find enough buyers, which may result in some project developers discontinuing their projects.

In 2016, we tracked 63.4 MtCO₂e transacted in the voluntary carbon markets. This is on the lower end of the spectrum of volumes tracked by us over the years, which has ranged from 12 to 135 MtCO₂e.

Throughout the history of the voluntary carbon markets, the total volume of offsets traded has varied greatly from year to year. In fact, the average annual percent change in annual market volume between 2005 and 2016 is 50%. When Ecosystem Marketplace first began tracking the market in 2005, just 12.5 MtCO₂e were traded. The market grew from 2005 to 2008, when it peaked at 134.5 MtCO₂e. Between 2008 and 2010, the market saw peak voluntary offset sales, and volume of transactions remained at or above 100 MtCO₂e per year through 2012. However, the total market volume has contracted since 2013; hovering between approximately 60 and 85 MtCO₂e per year. Several different factors shape the size of the voluntary carbon markets each year, making it difficult to pinpoint one reason for the 2016 drop in market size.

One factor that drives both supply and demand is the interaction between the voluntary and compliance markets. For example, when California introduced its cap-and-trade program in 2013, it allowed some United States (US) voluntary offsets and voluntary projects to convert into compliance offsets. This could explain the lower voluntary offset activity seen in North America in subsequent years, as offsets sold in the California market average between \$10–\$11/tCO₂e⁴ compared to the voluntary North America average of \$2.9/tCO₂e reported last year. Similar shifts may occur in China and South Africa, where compliance markets are in the process of being created and may allow for the transfer of voluntary carbon offsets or projects.⁵

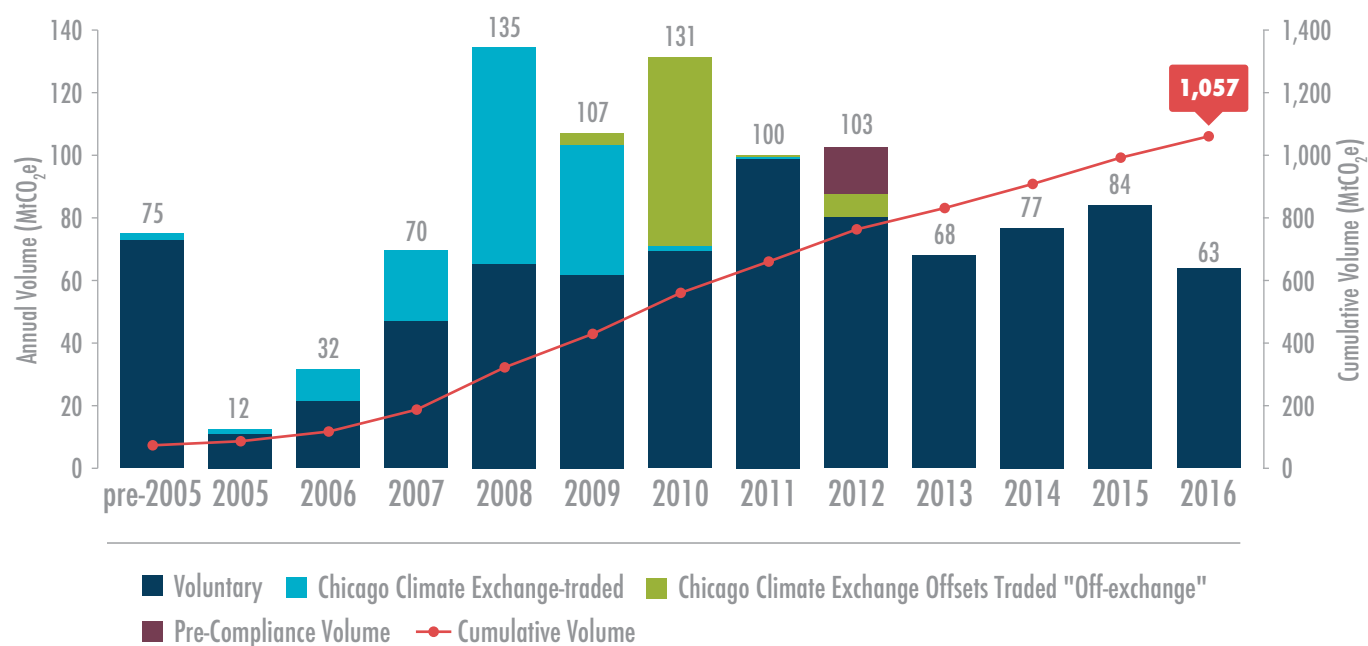
While the volume of pre-compliance offsets rises and falls according to the establishment of compliance markets, demand for other offsets traded voluntarily remains hard to predict and varies depending on the region and project type. But on the global scale, one impetus for future supply could be the 2015 Paris Agreement. The Agreement made climate change a particularly high-profile issue in 2015, and spurred many companies to announce new or more ambitious GHG mitigation commitments. These companies may offset more in the future as they start to implement the new commitments. The fact that this was not yet reflected in an uptick in the market in 2016 might be because these companies were still re-orienting or updating their climate change policies. However, it is also feasible that organizations saw the Paris Agreement as a sign that governments will address climate change, and have shifted to focus more on climate-friendly activities within their own operations (perhaps excluding voluntary offsetting from their considerations), in anticipation of being regulated post 2020.

Although the annual volume of offsets transacted in the voluntary market decreased in 2016, the cumulative volume transacted reached a new milestone in 2016, as we have now tracked 1,057,212,302 offsets transacted. This makes 2016 the first year that the voluntary carbon markets topped 1 billion tCO₂e in cumulative volume sold.

⁴ "Trading and Auctions," California Carbon, accessed May 16, 2017, <http://californiacarbon.info/>.

⁵ Allie Goldstein: *Buying In: Taking Stock of the Role of Offsets in Corporate Carbon Strategies*. (Washington, DC: Forest Trends, 2016).

Figure 2: Historical Market-Wide Voluntary Offset Transaction Volumes



Notes: Based on survey responses representing 1,057 MtCO₂e transacted pre-2005 to 2016. The Chicago Climate Exchange (CCX) volume represents transactions from US-based projects by US buyers anticipating regulation. It is considered "pre-compliance" because at the time, buyers were acting voluntarily in anticipation of cap-and-trade in the United States. After the legislation failed to pass in 2009, CCX tonnes continued to be traded on a voluntary basis, "off-exchange." Additional pre-compliance volumes were documented in the lead-up to California cap-and-trade and Australia's (now repealed) carbon tax.

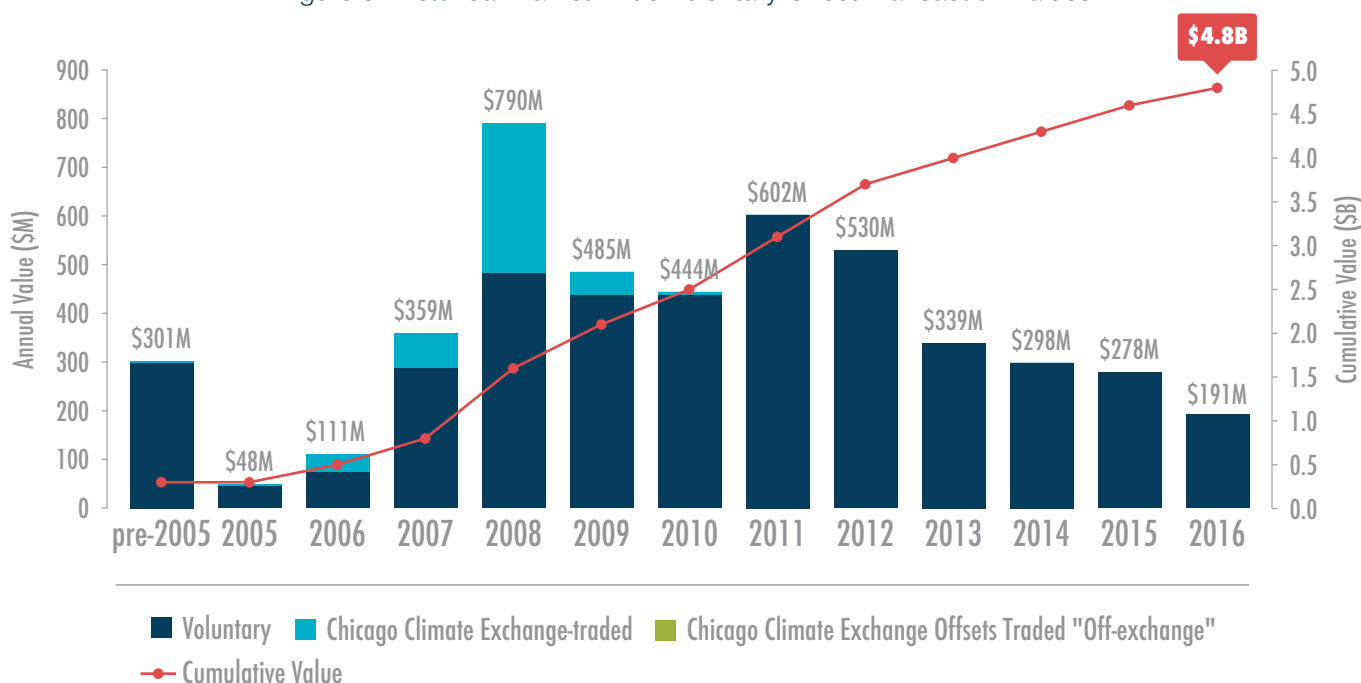
Value of Offsets Transacted

Offsets produced by primary market actors represent real change as each tonne of carbon dioxide equivalent produced has been **permanently** removed from the atmosphere. However, value is just as—if not more—important to track. If buyers don't value offsets, then project development will dry up and investment into projects will cease. If value increases, project developers can maintain their projects and possibly expand their operations—and new organizations may enter the market and start reducing emissions.

To achieve widespread action against climate change, the market value needs to rise far above the total 2016 value of \$191.3M. The main reason for this low market value is the fact that lower volumes of offsets were transacted last year: the average *price* paid for offsets remained relatively stable at \$3.0/tCO₂e. Drilling down to the transaction level, we see that buyers value offsets for a number of different reasons; sometimes because of project location, type, or standard (breakouts of these offset attributes are detailed in pages 10–16).

Buyers also tend to value newer offsets over older offsets, which may be a byproduct of supply and demand. There are many more offsets available for sale that were issued before 2016, and thus those suppliers may have been more competitive and offered lower prices to attract buyers. While pre-2016 **vintage** offsets sold at a lower average price of \$2.9/tCO₂e for a total value of \$136.3M, such offsets made up the bulk (88%) of all offsets sold last year (compared to 7% of 2016 vintage and 5% of post-2016 vintage). Buyers proved willing to pay slightly more for offsets issued in 2016 or due to be issued in the future, perhaps because they wanted to support more recent emissions reductions activities, or perhaps because they wanted to support an earlier-stage project. Current vintages (2016) sold at an average price of \$3.5/tCO₂e for a total value of \$13.7M, while future vintages (post-2016) sold at an average price of \$4.0/tCO₂e for a total value of \$10.5M.

Figure 3: Historical Market-Wide Voluntary Offset Transaction Values



Notes: Based on survey responses representing 1,053 MtCO₂e transacted over time. The CCX "off-exchange" value is too small to be visible.

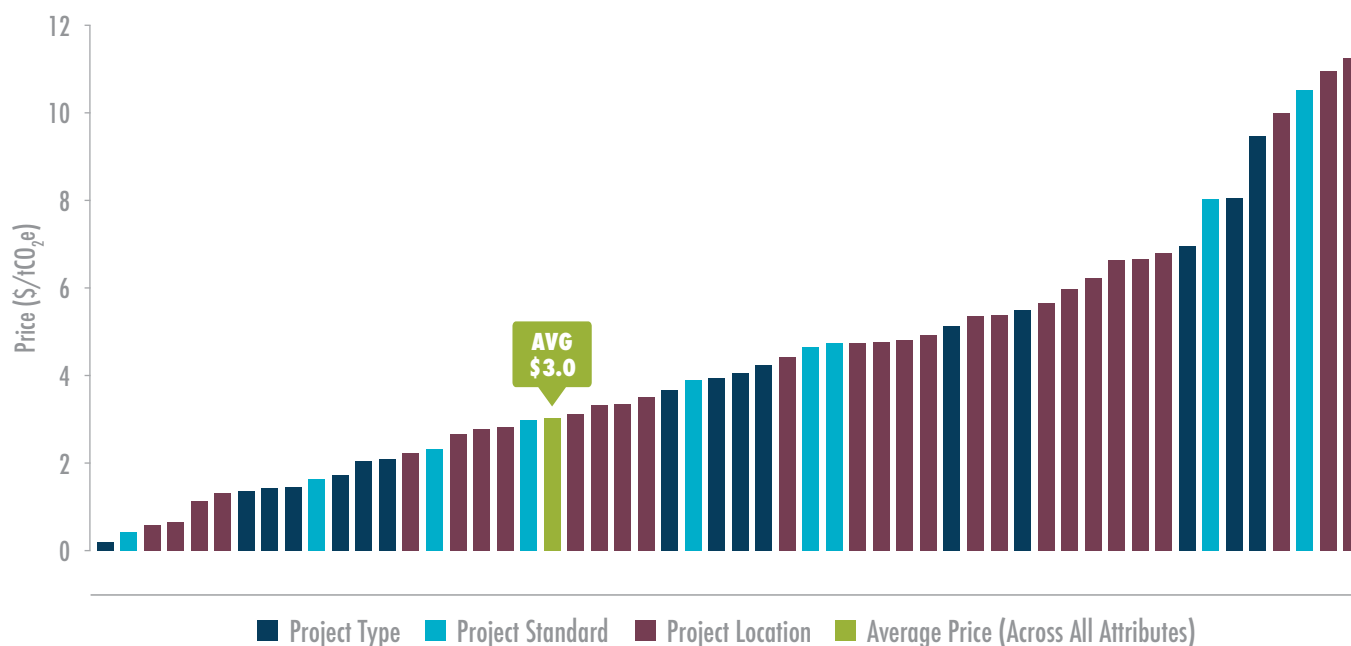
Average Price Paid for Offsets

Scientifically speaking, one tonne reduced in one corner of the world has the same effect as a tonne reduced in another part of the world. In a compliance carbon market, one tonne of carbon dioxide equivalent is typically priced the same as any other. Yet, on the voluntary markets, buyers paid vastly different prices for voluntary carbon offsets in 2016, from less than \$0.5/tCO₂e to more than \$50/tCO₂e.

The reason for this is that voluntary offsets operate within a different type of market. Compliance markets are commodities markets; trading occurs to favor the lowest price and there is little differentiation between products. Voluntary markets, however, more closely resemble the real estate markets: even if two houses have an identical size and make, there are an infinite number of factors that might affect the selling price. In the voluntary markets, buyers may pay differently for the same amount of wind offsets, for example, depending on whether the offsets originate from a project close to their own business operations; on whether a project provides training or job opportunities to nearby communities; on whether a project has been verified under a particular standard body.

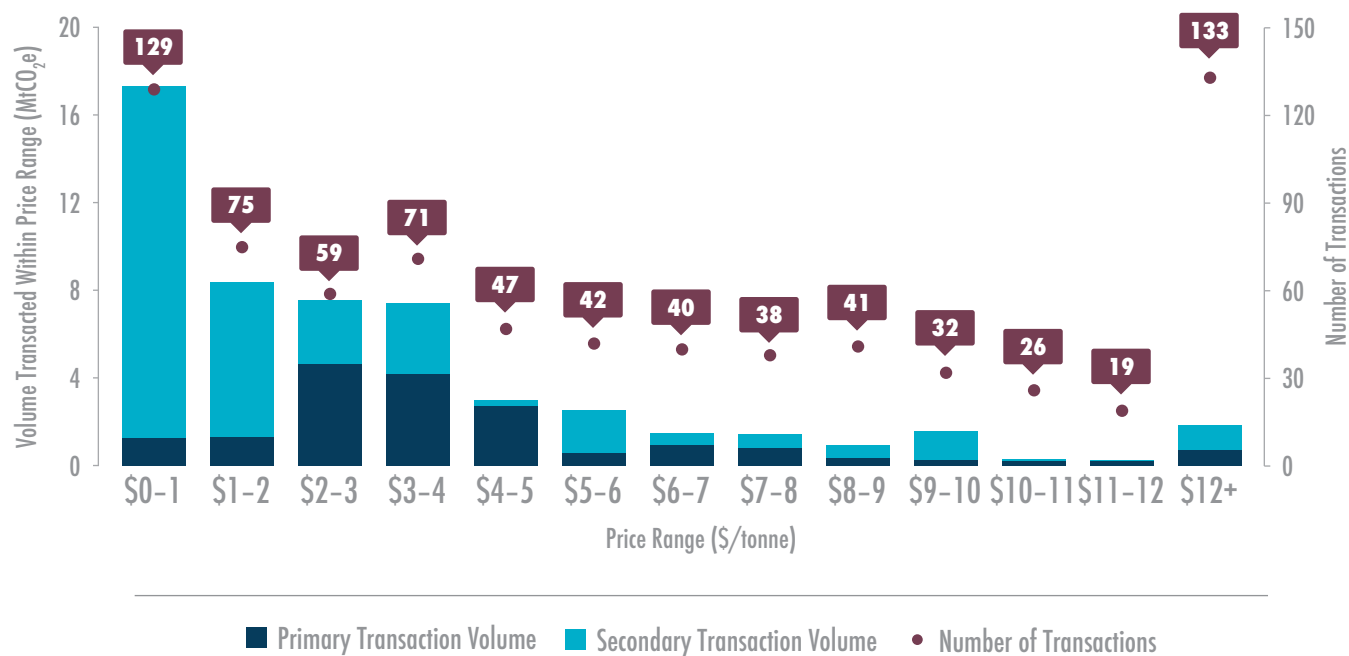
However, while we present many of these offset attributes and the accompanying average prices below (Figure 4) and in later pages (10–16), it's important to note that buyers are often influenced to value offsets by a *combination* of attributes. For example, clean cookstove offsets from Asia and Africa transacted at an average of \$2.9/tCO₂e and \$5.1/tCO₂e respectively (though, generally, clean cookstove offset transactions from both continents had actual prices range from below \$2/tCO₂e to almost \$20/tCO₂e).

Figure 4: Average Price of Offsets Transacted, Overall and by Select Project Standards, Types, and Locations



Across all offset types, age, location where produced, and standard, most offsets sell at the low end of the range (Figure 5), and this is especially pronounced for offsets sold on the secondary market. In 2016, over 17.3 MtCO₂e of offsets transacted at \$1.0/tCO₂e or less, and the vast majority, 93%, of these transacted on the secondary market. In contrast, only 2.4 MtCO₂e were sold at \$10.0/tCO₂e or more, and 47% of these transacted on the primary market. While the total volume transacted at \$12/tonne or more was much smaller than the total volume transacted at prices between \$0-1/tonne, the *number* of transactions recorded was nearly the same. This indicates that there are just as many deals at high average prices, but that those buyers purchase offsets in much smaller quantities.

Figure 5: Volume of Offsets Sold and Number of Transactions by Price, 2016



Notes: Based on 883 transactions representing 63.4 MtCO₂e in 2016.

For transactions above \$12/tonne, 27% fell within the \$12–\$15/tonne range, nearly half (46%) transacted between \$15–\$16/tonne, and the remaining 27% transacted for greater than \$16/tonne.

Developments to Watch

While country representatives will continue to negotiate the rules of the Paris Agreement over the upcoming years, sub-national jurisdictions, corporations, and individuals continue to act to support low carbon solutions. We asked our survey respondents what they consider to be future opportunities and challenges for voluntary carbon markets. Several of the developments below are familiar to those listed in past years, reflecting the slow-moving nature of some market trends, while others are new in 2016.

Any one of these developments could influence voluntary markets, for better or worse: They could, for example allow for the conversion of voluntary offsets into a compliance program and unlock new demand for such offsets; or they could, through such a conversion, take away some existing voluntary demand.

Politics may cause corporations and others to step up: Elections in the United States this past year have left the future of US political commitment towards reducing emissions in question. Many respondents to this survey fretted about long-term implications if the US decides not to pursue low carbon commitments in the next few years, while others saw an opportunity for voluntary offsetting to help ensure interim emissions reductions occur. The lack of national climate action may galvanize private sector support for offsets.

Aviation could open a potential new market: All eyes are looking to the skies, as the International Civil Aviation Organization (ICAO) decides how airlines can reduce their emissions to meet an industry-wide target. Since renewable jet fuel is not yet widespread or economical, the industry association has turned to offsets as a way for airlines to meet emissions reductions goals, and ICAO is starting to craft its own offsetting scheme, known as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). However, *which* offsets (such as particular standards or project types) will be allowed in this market remains to be negotiated.

Company commitments could stir new offset demand: Company commitments around reducing deforestation or emissions have potential implications for offsetting. These include:

- Commitments *to reduce or eliminate deforestation from sourcing key commodities* (like soy, timber, or palm oil) are trying to protect at-risk forests. Since both forest carbon project developers and national REDD+ programs have been active in this space, this means that there is clear potential to overlap work and/or funding across REDD+ projects/programs and incorporate sustainable supply chain activities. So far, Forest Trends' Supply Change initiative has tracked 447 companies making zero deforestation commitments around their commodity sourcing.
- Meanwhile, 262 companies have committed *to science-based emissions reductions targets*, meaning that they have set targets in line with keeping a global temperature increase below 2 degrees Celsius. As these companies seek to make good on their promises, they may turn to offsetting once they have taken other measures to reduce their carbon footprint.

Reporting differences could shift demand to renewable certificates: In 2015, the Greenhouse Gas Protocol Corporate Standard, which is used widely by companies to quantify and report their emissions, revised their guidance. One key change regarded scope 2 emissions, which are indirect emissions generated by the purchase of electricity, heat, or steam: companies can now subtract renewable energy gained from certifications like the US-based Renewable Energy Certificates (RECs), international RECs (iRECs), Tradable Instruments for Global Renewables (TIGRs), or European Guarantees of Origin (GOs) from their total scope 2 emissions. While the guidance recognizes the purchase of renewable energy certificates, it does not allow companies to subtract renewable energy offsets from this calculation, leading market participants to believe that there could be a shift in demand from carbon offsets in favor of approved renewable energy certificates.

Results from Paris Agreement negotiations or commitments, 2017–2020: The Paris Agreement contains a number of decisions that could influence voluntary offsetting.

- The majority of countries have submitted their national emissions reductions plans (called Nationally Determined Contributions, "NDCs"), along with frameworks about *how* they would accomplish these changes.

Many mentioned using carbon markets as a cost-effective way to meet their reduction goals. These countries may choose to create their own carbon markets or link with countries using similar approaches (called “carbon clubs”).

- Negotiators will decide carbon market rules that would allow trading of carbon offset-like instruments (given the long-winded moniker of “internationally transferred mitigation outcomes”) across countries.
- Negotiators will also determine the role for forest carbon finance targeted towards reducing or avoiding deforestation in tropical countries at a country or jurisdictional scale.

Results from Paris Agreement negotiations or commitments, post-2020: Since international negotiations about climate change may have the largest impact on voluntary offsetting, we asked survey respondents to look a little further in the future and list potential risks and opportunities for voluntary offsetting post-2020. They could select as many choices as they thought applicable, or write in their own responses.

The majority of respondents cited national policies around counting emissions reductions as the biggest risk towards future voluntary offsetting activity. For example, if a country counts all emissions reductions towards their own domestic emissions reduction commitment, then they would not allow voluntary market participants to sell offsets abroad (since any internationally-traded offsets should count against the foreign buyer’s emissions or meet the forest buyer country’s emissions, not the host country’s emissions). So far, Brazil has given some indication that it may take this approach and has not given any indication that it would pay for these voluntary offsets domestically.

Following their overarching concerns about national policies, respondents highlighted a few more specific risks that also revolved around national or international negotiations—either from corporations pulling back on offsetting given government action or around market uncertainty created from unclear standardization of compliance offsets. The latter has lots of politics surrounding it: when deciding how to meet their emissions reductions commitments, countries may decide to make their own compliance market, potentially link that market with other similar market structures in different countries, or participate in a global market defined by countries worldwide. In each of these, the rules around what constitutes a compliance offset could have implications for the voluntary markets; for example, as mentioned earlier in this report (page 5, 13), recent compliance markets have sometimes recognized and allowed voluntary offsets to convert for sale.

Despite these risks, respondents also saw clear avenues for selling more offsets—especially if a future global carbon market allowed for the transfer of voluntary offsets. If voluntary offsets could not find a home in a new global compliance market, there may be opportunities in sector-specific markets, like the aviation market. Furthermore, even if some countries did not allow the export of offsets, respondents thought there may be opportunities for corporations to support voluntary projects to help countries meet their emissions reduction goals, either through the purchase of emissions reductions or through project investment.

Our Supporter



Good Energies Foundation (<http://www.goodenergies.org>) supports sustainable systems that can prevent poverty and disruption caused by climate change in the Global South. Good Energies Foundation was established in 2007 and founded as an integral part of Good Energies Inc., a private equity company specialised in investing in the renewable energy and energy-efficiency industries. Good Energies Foundation's historical mission is the alleviation of future poverty in the Global South by mitigating climate change. Good Energies Foundation initially leveraged its know-how in solar photo-voltaic to provide access to clean energy, especially in the area of rural electrification. At a later stage, climate-change related solutions were added to the portfolio, including sustainable reforestation models. As temperatures rise, we believe that innovative solutions are urgently needed to prevent the future displacement and impoverishment of the world's most vulnerable populations.

Our Sponsors



BCP (BioCarbon Partners) is one of the leading African-based forest carbon offset development companies in the REDD+ (Reducing Emissions from Deforestation and Degradation) sector. BCP's mission is making forest conservation valuable to people. BCP focuses on achieving long-term conservation solutions for African dryland forests, through local presence, community empowerment and strong partnerships. Our REDD+ activities are validated and verified to the highest of international standards and include the VCS verified Lower Zambezi REDD+ Project in Zambia (CCBA triple gold Validated). BCP is also developing a large-scale REDD+ activity in Zambia's Luangwa Ecosystem through the 5 year USAID-funded Community Forests Program. BCP combines an entrepreneurial approach with a core philosophy of caring for people and environments to catalyze deforestation reduction in ecosystems of global biodiversity significance. More information about BCP can be found at www.biocarbonpartners.com.



Numerco is an award-winning independent energy and commodities company with a leading reputation in the renewable and carbon industry. Dedicated to reducing the impact of climate change, Numerco has a global reach extending beyond 30 countries, sourcing sustainable products from more than 200 partners and delivering them to organisations to meet their environmental goals. Specialising in international voluntary markets with an in-depth knowledge of regional programmes and industry-wide schemes, Numerco offers customers unparalleled access to the evolving environmental commodity markets. All products are certified to accredited standards and frameworks including CDM, VCS, Gold Standard, CAR and RECs.

Numerco provides a reliable and transparent platform to source products used to neutralise or reduce greenhouse gas emissions and present them effectively and efficiently to valued customers. The company's direct engagement throughout the process has wider social and economic benefits to communities involved in the projects and our extensive expertise and knowledge enables the development and financing of new projects. Founded in 2013 and based in London, Numerco has won awards three years consecutively from Environmental Finance Magazine. Visit <http://numerco.com> for more information.

**BioCarbon Fund**

[The BioCarbon Fund Initiative for Sustainable Forest Landscapes \(ISFL\)](#) is a multilateral fund, supported by donor governments and managed by the World Bank. Established in 2013, it promotes reducing greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries (REDD+), and from sustainable agriculture, as well as smarter land-use planning, policies and practices. The ISFL supports programs in Colombia, Ethiopia, and Zambia. An additional program in Indonesia is under consideration.

The project-level initiative of the BioCarbon Fund was established in 2004 as a public-private sector initiative managed by the World Bank to support afforestation/reforestation as well as sustainable agricultural management projects through the purchase of emission reductions or carbon credits. Most of the projects supported by the Fund are registered with the UNFCCC's Clean Development Mechanism (CDM), while some including the first REDD+ initiative in Africa (Madagascar CAZ REDD project) and the Kenya Agricultural Carbon project are associated with Verified Carbon Standard (VCS).

BioCarbon Fund has over 20 projects located in 16 countries spread across five continents and they have been pioneers in demonstrating the generation of multiple revenue streams through a combination of financial returns from the sale of carbon credits with increased local incomes and productivity from sustainable land management practices.



Pioneering Finance for Conservation

Biodiversity Initiative

Promoting development of sound, science-based, and economically sustainable mitigation and no net loss of biodiversity impacts

Coastal and Marine Initiative

Demonstrating the value of coastal and marine ecosystem services

Communities Initiative

Strengthening local communities' capacity to secure their rights, manage and conserve their forests, and improve their livelihoods

Ecosystem Marketplace

A global platform for transparent information on environmental finance and markets, and payments for ecosystem services

Forest Policy, Trade, and Finance Initiative

Supporting the transformation toward legal and sustainable markets for timber and agricultural commodities

Public-Private Finance Initiative

Creating mechanisms that increase the amount of public and private capital for practices that reduce emissions from forests, agriculture, and other land uses

Supply Change

Tracking corporate commitments, implementation policies, and progress on reducing deforestation in commodity supply chains

Water Initiative

Promoting the use of incentives and market-based instruments to protect and sustainably manage watershed services

Learn more about our programs at www.forest-trends.org