Ecosystem Marketplace

FOREST TRENDS

State of the Forest Carbon Markets 2011

From Canopy to Currency

Executive Summary

PREMIUM SPONSORS

WILDLIFE WORKS

Bio CF

ERA ECOSYSTEM RESTORATION ASSOCIATES INC.

SPONSORS

BAKER & MCKENZIE

FOREST CARBON GROUP

DNV

Face the Future

ecotrust

FOREST TRENDS

About Ecosystem Marketplace

Ecosystem Marketplace, a project of the non-profit organization Forest Trends, is a leading source of information on environmental markets and payments for ecosystem services. Our publicly available information sources include annual reports, quantitative market tracking, weekly articles, daily news and news briefs designed for different payments for ecosystem services stakeholders. We believe that by providing solid and trustworthy information on prices, regulation, science and other market-relevant issues, we can help payments for ecosystem services and incentives for reducing pollution become a fundamental part of our economic and environmental systems, helping make the priceless valuable.

Find out more at
www.ecosystemmarketplace.com

Ecosystem Marketplace manages the Forest Carbon Portal, a clearinghouse of information, feature stories, event listings, project details, 'how-to' guides, news, and market analysis on forest-based carbon sequestration projects. Launched at the December 2008 UN Climate Conference of the Parties in Poznan, Poland, this satellite site to Ecosystem Marketplace exists to fill knowledge and 'market intelligence' gaps with the goal of stimulating progressive land-based carbon market offset projects policy in the regulated markets, and successful pilot projects in the voluntary markets. It is designed for the investor, the student, the policymaker, the project developer, the analyst, the broker, the retailer, and the conservationist. In other words, if you have an interest in land-based carbon sequestration, these resources are for you.

Find out more at
www.forestcarbonportal.com

Special Thanks to Our Donors

*This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the TransLinks Cooperative Agreement No.EPP-A-00-06-00014-00 to The Wildlife Conservation Society. TransLinks is a partnership of WCS, The Earth Institute, Enterprise Works/VITA, Forest Trends and The Land Tenure Center. The contents are the responsibility of the partnership and do not necessarily reflect the views of USAID or the US government.

Ecosystem Marketplace

State of the Forest Carbon Markets 2011

From Canopy to Currency

David Diaz, Katherine Hamilton,
and Evan Johnson

Contributors: Daniel Kandy and Molly Peters-Stanley

September 2011

FOREST TRENDS

Acknowledgments

This report is public and freely available due to the financial contributions from Ecosystem Marketplace's sponsors and donors:

Premium Sponsors: Wildlife Works, World Bank BioCarbon Fund, and ERA Ecosystem Restoration Associates.

Sponsors: Baker & McKenzie, Det Norske Veritas, Ecotrust, Forest Carbon Group, and Face the Future.

Donors: The United States Agency for International Development (USAID), the David and Lucile Packard Foundation, the Gordon and Betty Moore Foundation, the John D. and Catherine T. MacArthur Foundation, the Global Environment Facility, the United Nations Development Programme, and the Norwegian Agency for Development Cooperation.

This report would not be possible without the data shared by individuals representing more than 200 organizations. The following pages also represent a compilation of the resources, insights, and knowledge of dozens of individuals. They include, in no particular order: Ellysar Baroudy, Mirko Serkovic, Marigold Norman, William Bierbower, Maud Warner, Kristina Van Dexter, Phil Covell, Ben Feldman, Gena Gammie, David Tepper, Benjamin Coleman, Gary Gero, David Antonioli, Andrea Welsh, Sean Carney, Zubair Zakir, Jeff Hayward, Toby Janson-Smith, Christian Dannecker, Mike Korchinsky, Ollie Belton, Mark Belton, Martijn Wilder, Louisa Kiely, Chandler Van Voorhis, Bruno Ferraz, Maria Tereza Umbelino, Charles Hall, Nick Martin, Mary Grady, John Ramey, Leslie Durschinger, Denis Slieker, Justin Whalen, Gonzalo Castro de la Mata, Roberto León Gómez Charry, Moriz Vohrer, Michael Sahm, Henriette Lachenit, Joanna Silver, Jane Lloyd, Kathy Benini, Kate Townsend, Steve Baczko, Alex Langer, Pablo Reed, Miguel Rescalvo, Kyle Silon, Mark Wilson, Brookly McLaughlin, Steve Dettman, Brent Davies, Rebecca Vonada, Mike Mitchell, and Alexa Morrison.

Thank you also to the entire staff at Forest Trends for your continued support and contributions and to Michael Jenkins for his guidance.

Cover by Wenceslao Almazan. Layout by Anne Thiel and Ben Dappen. Cover photo credit: Nathan Dappen.

Executive Summary

The first seeds of the forest carbon markets were planted over thirty years ago… but it was not until 2010 that the marketplace's largest growth spurt came into view.

This year, a record number of project developers and secondary market suppliers from around the world shared data about their projects and transactions. The information they provided revealed a market that has both increased the volume of its transactions and matured in its structure. While the marketplace has taken root enough as to entice new developers and investors to participate, many observers still remain cautious amid significant uncertainties. Despite growing confidence around several nascent policies and compliance markets, the future shape, size, and scope of the global forest carbon marketplace remains highly uncertain.

This second annual *State of the Forest Carbon Markets* tracks, reports, and analyzes trends in global transactions of emissions reductions generated from forest carbon projects. The information in this report is primarily based on data collected from respondents to Ecosystem Marketplace's 2010 forest carbon project developer's survey, combined with data from the 2009 *State of the Forest Carbon Market Report* and the 2011 *State of the Voluntary Carbon Markets* report.

The data and analysis that follow cover forest carbon activity in compliance carbon markets—such as under the Kyoto Protocol's Clean Development Mechanism (CDM), the New Zealand Emissions Trading Scheme (NZ ETS), and the New South Wales Greenhouse Gas Reduction Scheme (NSW GGAS)—as well as voluntary carbon markets—such as the voluntary Over-the-Counter (OTC) market and the Chicago Climate Exchange (CCX). In total, we captured responses from 161 project developers or project proponents in the primary forest carbon market and 48 suppliers in the secondary market covering 412 individual forest carbon projects.

Don't Look Down – Volume and Value Climb to New Heights

In 2010, the global markets for forest carbon projects hosted the largest volume and value of credits contracted in history, dramatically outpacing the market activity we observed in our last *State of the Forest Carbon Markets* report that covered transactions up to mid-2009.

Growing from already record-breaking years in 2008 and 2009, respondents reported a total of 30.1 million metric tonnes of carbon dioxide equivalent ($MtCO_2e$) contracted across the primary and secondary[1] markets in 2010. The estimated total value of transactions in 2010 was $178 million (see Table 1). The historical scale of the forest carbon markets climbed to 75 $MtCO_2e$, valued at an estimated $432 million with projects impacting more than 7.9 million hectares in 49 countries from every region of the world. Consistent with previous years, the vast majority (>90%) of volumes reported in 2010 occurred in the voluntary OTC market, as the CCX trading program wound down to a close, and the interest in contracting temporary forest credits from the CDM shrank from a 2009 high. With 2010's growth, forest carbon transactions now represent more than 40% of the total voluntary OTC carbon market by volume.

The average price for offsets across the primary forest carbon markets rose from $\$3.8/tCO_2e$ in 2008, to $\$4.5/tCO_2e$ in 2009, and up to $\$5.5/tCO_2e$ in 2010. Prices continue to vary widely across the regulated and voluntary markets, as each market transacts very different credits with unique supply- and demand-side drivers to go along with distinct project-level characteristics. The value of forest credits in the CCX remained at historical lows just above $\$1.0/tCO_2e$, while OTC credits jumped from $\$4.2/tCO_2e$ in 2009 up to $\$5.6/tCO_2e$ in 2010. Prices reported for CDM forest credits fell slightly from $\$4.7/tCO_2e$ in 2009 to $\$4.5/tCO_2e$ in 2010, combined with a dip in volumes from 2009, leaving the market smaller this year compared to last.

[1] The primary market refers to original transactions of credits directly from a project; the secondary market refers to all ensuing transactions.

Table 1: Volume, Value, and Prices in the Forest Carbon Markets (Primary & Secondary Markets)

Market	Reported Volume ($MtCO_2e$)		Reported Value (million US$)		Avg. Price (US$/$tCO_2e$)	
	Historical Total	2010	Historical Total	2010	Historical	2010
Voluntary OTC	59.0	27.4	250.7	126.7	5.46	5.63
CCX	2.9	0.1	5.2	0.2	2.83	1.18
Total Voluntary Markets	61.9	27.6	256.0	126.9	5.36	5.60
CDM	9.0	1.4	37.6	6.3	4.28	4.49
NSW GGAS	3.1	1.1	11.8	0.0	12.26	*
NZ ETS	0.6	0.0	8.9	0.3	13.91	12.95
Total Regulated Markets	12.8	2.6	58.3	6.5	5.61	4.61
Total Global Markets	74.7	30.1	314.2	133.4	5.40	5.54
Total Primary Market	71.6	29.0	290.7	128.6	5.22	5.49
Total Secondary Market	3.2	1.2	23.5	4.8	9.69	7.56
Total Estimated Value			432.1	177.6		

Notes: Average prices include transactions from primary and secondary markets. These may differ from average prices reported later by standard, etc., which are based upon primary market transactions. All values and prices reported above except for "Total Estimated Value" include only those volumes with prices reported directly by survey respondents. Total Estimated Value calculated by applying median price in each year to volumes reported without price by survey respondents For 2010 and historical data, 81% and 86% of the total volume reported included matching price points, respectively. The relatively small response from New Zealand projects likely under-represents the current and historical volumes and values of that marketplace.

** Too few data points to disclose average price for 2010.*

Source: Ecosystem Marketplace

Riding the REDD Wave

The 2010 surge in the forest carbon market was fueled to a great extent by contracting from large Reduced Emissions from Deforestation and Forest Degradation (REDD)[2] projects. Following an early role kindling the carbon market, REDD re-emerged as a major source of credits in 2007 (see Figure 1). Since then, REDD has followed a dramatic growth trajectory, buoyed by strong international policy signals, emerging compliance markets, and several newly minted methodologies enabling verification. In 2010, REDD clearly surpassed the volume supplied by any other project type, supplying 19.5 $MtCO_2e$ out of the total 29.0 $MtCO_2e$ contracted in the primary market.

Looking beyond REDD, supply continued to emerge from both Afforestation/Reforestation (AR) and Improved Forest Management (IFM) projects. The storyline for AR, however, was one of retrenchment, as contracting for AR credits fell in every single market tracked from 2009 to 2010. The unique hurdles to financing and commercializing AR projects continue to persist and constrain the ability for the carbon markets to incentivize one of the oldest strategies for enhancing and restoring environmental health—planting trees. IFM activities continue to supply the markets with modest and steady growth driven largely by US-based projects. IFM is expected to build an increasingly global footprint in 2011 following the approval of the first internationally applicable IFM-specific methodologies by a third-party standard in 2010 and 2011 under the Verified Carbon Standard (VCS).

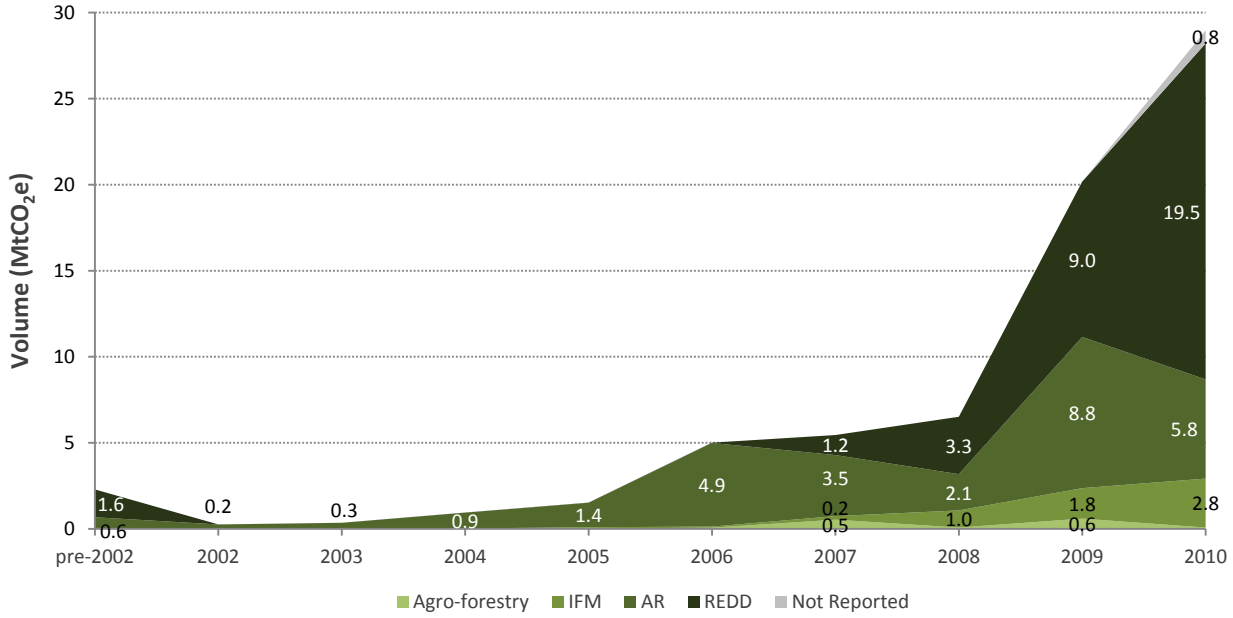
The Global Flow of Credits

Looking around the world, clear hotspots emerged in terms of the sources of credits and their destinations. Latin America provided the lion's share of supply, contributing more than half of the volume contracted in 2010 (see Figure 2), almost entirely from 28 projects in Peru and Brazil. European buyers stepped in as the largest source of demand, taking at least 10.6 $MtCO_2e$ primarily from Latin America, Asia, and Africa. North America provided the second-largest sources of both supply and demand in the market, with companies taking on 5.6 $MtCO_2e$, just over the 4.9 $MtCO_2e$ supplied from projects

[2] For the distinction between REDD and REDD+, refer to Box 3 in the main report.

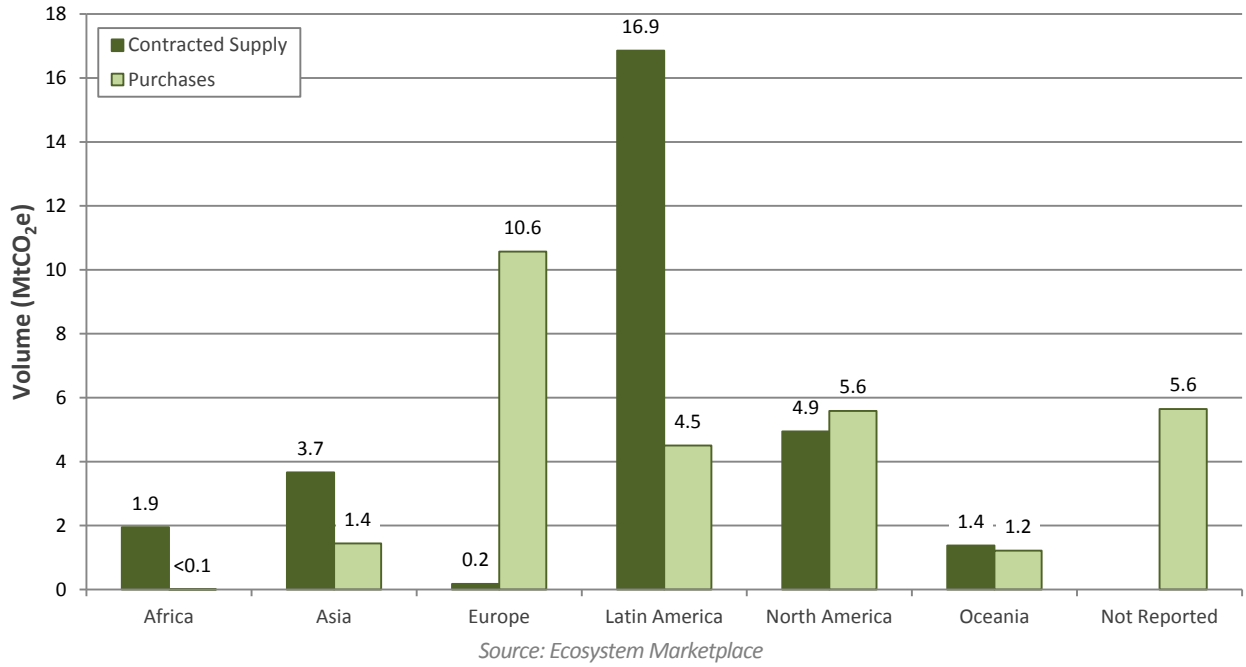
in the region. North American buyers were the primary source of demand for credits from North American projects, but Europeans were also willing to take a substantial slice of the North American pie (0.5 $MtCO_2e$).

Figure 1: Historical Volumes by Project Activity Type (Primary Market Only)



Note: This graph shows volumes contracted by each project type in the primary market. Data labels are omitted in years where volume <0.1 $MtCO_2e$.
Source: Ecosystem Marketplace

Figure 2: Locations of Buyers and Supply Contracted in 2010 (Primary Market Only)



Source: Ecosystem Marketplace

Africa remains a relatively small player in terms of global supply, providing the fewest credits of any region with a voluntary OTC focus. African volumes were down from their peak at 5.1 $MtCO_2e$ contracted in 2009, producing just 1.9 $MtCO_2e$

contracted in 2010 from 14 projects. Nevertheless, the region is expected to follow its longer-term historical growth trend with a growing pipeline of large projects such as those begun by Wildlife Works in Kenya, and new deals, such as from ERA Ecosystem Restoration Associates in the Democratic Republic of Congo, which appear set to contribute a future boost in African supply beyond historical levels.

Last year also saw a trend towards regions buying credits from their own backyards. Exemplified by Oceania, where buyers exclusively buy locally, this same trend can also be found in Asia and Latin America where local purchasing by new buyers is a growing trend to watch. Although both Asia and Latin America continue to supply more credits into the market than they consume, many market players and observers view the uptick in localized demand for forest carbon credits as a critical component to sustaining the growth of the forest carbon sector into the future.

The Changing Face of Projects

The private sector has emerged as a new torchbearer for forest carbon projects. Taking cues from the early and persistent progress of non-profit conservation organizations, a host of new private sector players are entering the marketplace, from project development companies to major financial firms such as BNP Paribas and Gazprom Marketing & Trading.

On the ground, the impacts of this transition remain uncertain. The broad application of co-benefits certification under the Climate, Community & Biodiversity (CCB) Standards suggests that the market has set a key requirement that projects must deliver benefits to biodiversity and communities to find a broad appreciation among buyers, but the project-level approaches to doing so still vary widely. Projects continue to be developed using a variety of forest management strategies, species mixes, and across a broad spectrum of sizes.

One of the most persistent challenges in forest governance, from well before carbon markets entered the scene, has been the resolution of conflicts regarding the land rights of local peoples and ensuring that carbon projects benefit local peoples with the best track record of forest conservation. In terms of land tenure, the data for 2010 indicate that there is an increasing attraction to siting projects on privately owned and managed lands. This preference showed up for both non-profit and for-profit developers, who developed 62% and 77% of projects in areas including private landholding, respectively.

There has been less activity to date developing projects in areas with communal or customary ownership and tenure, and for-profit and non-profit developers showed different propensities for developing these projects. Although 30% of projects from non-profit developers included lands with communal or customary use or ownership rights within the project area, only 17% were exclusively on these types of lands; for for-profit developers, the contrast is more stark, with 25% of projects including communal or customary lands in the project area, but only 2% of projects developed exclusively on these lands.

In their current implementation, most successful forest carbon projects have focused on projects where legal environments are relatively stable and ownership and land tenure are clear. Encouraging the resolution and clarification of land rights in areas of conflict holds immediate potential for improving forest governance and conservation, as well as offering expanded opportunities in the forest carbon markets by creating a more stable legal environment that project developers and investors need to bring carbon finance to bear at greater scale.

From Trees to Tonnes

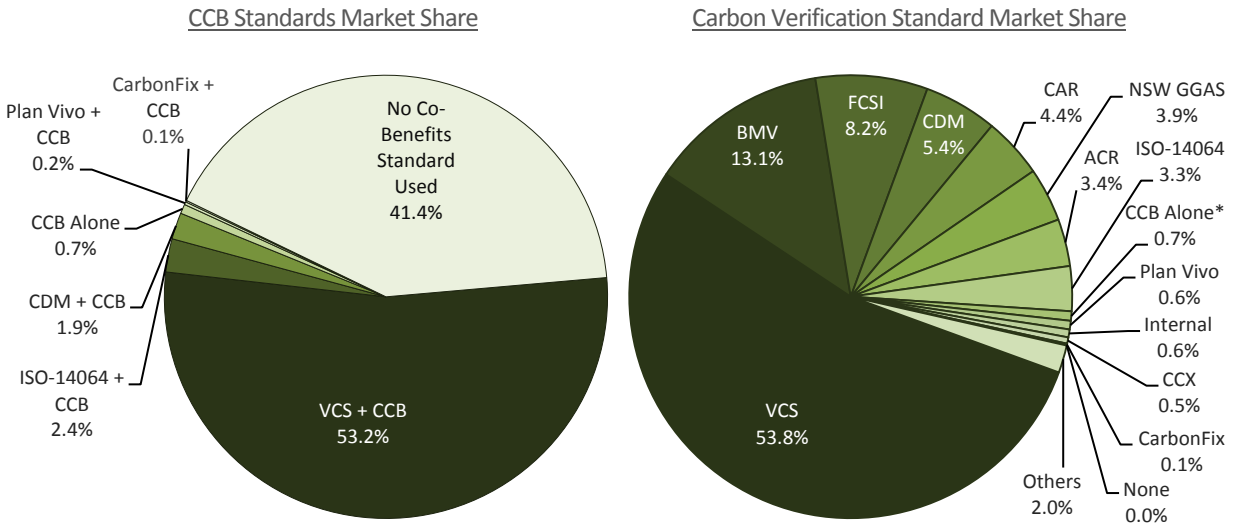
The year of 2010 was filled with many firsts in the forest carbon sector. The move towards standardization using third-party verification found throughout the broader carbon markets has taken a strong place at the center of forest carbon market activity. In particular, the continued emergence of REDD+ on the international policy stage was matched by the unveiling of several groundbreaking REDD methodologies for offset projects and the issuance of the first VCS REDD credits. But REDD was not alone. A trend towards consolidated or widely applicable methodologies from standards requiring third-party verification is now apparent from all corners of the market, with an eye towards decreasing the burden on developers while

maintaining rigor in the marketplace. It now seems buyers have responded to the greater clarity in the methodology landscape with an increased willingness to sign on the dotted line with new projects.

Among the highlights in 2010, the California Air Resources Board (ARB), charged with implementing the state's cap-and-trade scheme, gave the long-awaited blessing to forest protocols from the Climate Action Reserve (hereafter CAR or The Reserve) for acceptance in the future compliance scheme. The Verified (formerly "Voluntary") Carbon Standard released its first five forest carbon methodologies, including a long-awaited modular approach to REDD accounting. At the same time, the American Carbon Registry (ACR) released its first forest methodology and unveiled an innovative privately insured version of the buffer pool in partnership with Finite Carbon.

In 2010, two additional carbon standards (Brasil Mata Viva, or BMV, and Forest Carbon Standard International, or FCSI) popped on the radar for the first time with reports of substantial volumes contracted, but the dominance of market share by VCS was seemingly unaffected (see Figure 3). Across the primary market, VCS was the standard of choice for 16 projects with more than half of the volume project developers committed to deliver, covering 15.6 $MtCO_2e$ contracted in 2010. The new standards BMV (with 9 new projects) and FCSI (with at least 2 new projects) took their first bold steps into the marketplace, taking the second- and third-place spots for market share by volume with reports of 3.8 $MtCO_2e$ and 2.4 $MtCO_2e$ contracted in 2010, respectively.

Figure 3: Carbon Standards and Layering with Co-Benefits Standards, 2010



Notes: Percentages are based on market share by volume of primary market transactions contracted in 2010 (29.0 $MtCO_2e$ total). Projects must be verified under a carbon quantification standard in order to be issued verified offset credits.
**Several projects reported contracting offsets and only applying the CCB Standards. CCB certification alone will not result in credit issuance. The label "CCB Alone" is solely intended to distinguish these transactions from those that have applied no standards at all.*
Source: Ecosystem Marketplace

In 2010, only 3 projects reported contracting credits without the use of any carbon accounting or other standards and 14 reported using only an internal standard. The total volume contracted from projects using an internal or no standard fell from 220,000 metric tonnes of carbon dioxide equivalent (tCO_2e) in 2009 to 170,000 tCO_2e in 2010, shrinking from 1.0% to 0.6% of the primary market. This decline suggests these projects may be having greater difficulty finding buyers as the application of third-party standards is increasingly demanded in the marketplace.

Many projects are also now following a demand for certification of an array of project benefits beyond carbon. In 2010, projects across the forest carbon sector reported applying only one supplementary "co-benefits" standard, that of the Climate, Community and Biodiversity Alliance (CCBA, see Figure 3). Twenty-five projects that contracted credits in 2010 reported using the CCB Standards, covering over half the year's total volume. Although there were at least 80 transactions

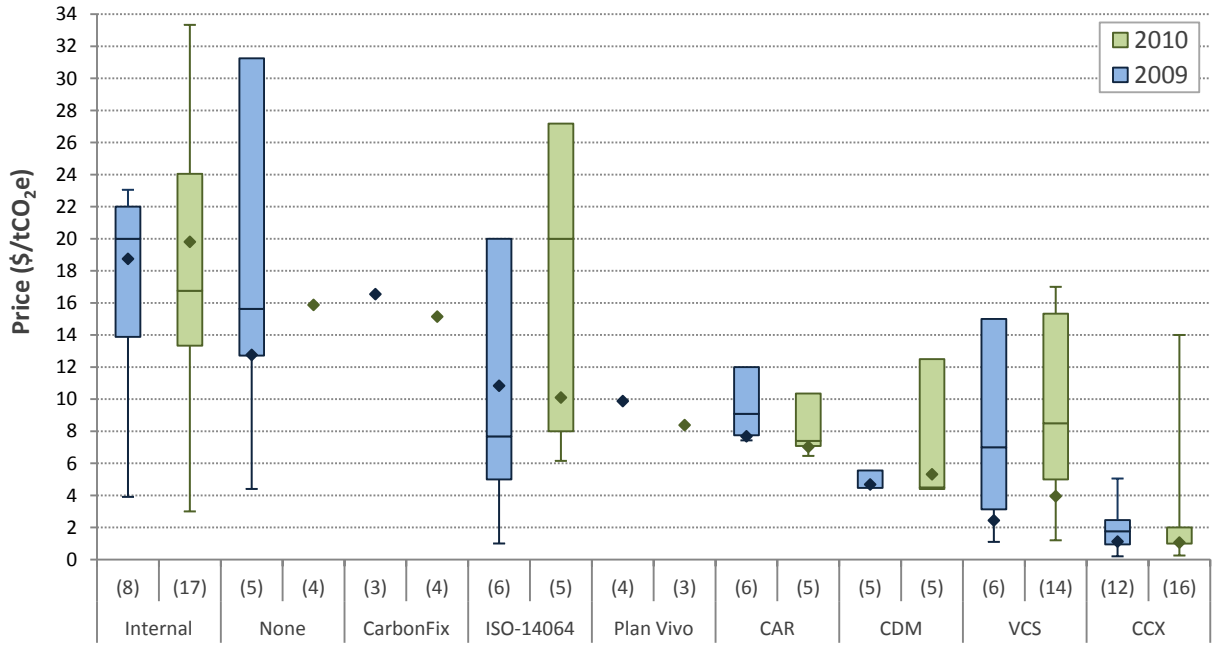
in 2010 from projects not reporting the use of the CCB Standards, the commitments from these projects represented less total volume than their CCB-applying counterparts.

The Value of a Standard

The diverse array of standards applied in the marketplace also coincides with a spectrum of prices for credits developed under each standard. Projects using no standard or only an internal standard were able to secure the highest prices, although—as reported above—they did not contract significant volumes. Credits committed in 2010 under the CAR standard were clustered fairly tightly in the range of \$7-10/tCO_2e, but were down slightly from prices reported in 2009. California market players indicated these prices have already risen following approval of The Reserve's two forest protocols at the end of 2010 for use in the pending California cap-and-trade scheme.

Despite having the largest volumes contracted across the globe, VCS had the lowest average price per tonne, with the exception of CCX, whose trading program swiftly wound down in 2010 (see Figure 4). While large volumes from the VCS were contracted at across-market lows, however, many individual projects applying VCS reported contracting credits at prices substantially higher than the volume-weighted average. While VCS showed volume-weighted average prices of \$4.0/tCO_2e, the median price contracted in 2010 was much higher, bringing \$8.5/tCO_2e.

Figure 4: Price Distribution by Carbon Accounting Standard Applied in 2009 and 2010



Notes: For further explanation of the box-and-whisker format used in this graph, refer to Box 2 in the main text. The price distributions shown here incorporate contracts signed across a range of stages in the project cycle (e.g., pre- and post- validation and verification) and with different delivery terms. These values are also closely related to the size of the transactions, and the total volume contracted under each standard varies considerably.

Source: Ecosystem Marketplace

Projects applying the CarbonFix and Plan Vivo standards secured higher prices than many of their counterparts using other standards, but have contracted relatively limited volume in terms of global market share. This may stem in part from the narrower niche and smaller portfolio of projects focused on tree planting on the one hand (CarbonFix), and smallholder and community engagement on the other (Plan Vivo). For projects moving volumes at very large scales (i.e., hundreds of thousands of tonnes per year), these standards have found limited application to date. Nevertheless, the majority of projects contracting offsets do not fit this largest scale, and both CarbonFix and Plan Vivo have grown in recent years, attracting new projects that continue to successfully find buyers.

Despite the common discussion of price premiums related to perceived differences in offset quality among available standards, our analysis of the data and the consensus from project developers interviewed for this report support the conclusion that there is no apparent price premium based on the perceived stringency of an offset standard. Instead, the data we have collected, backed by market player interviews, support the assertion that many standards currently function as gatekeepers to particular buyer segments rather than as price-setters.

Standing on the Shoulders of Project Developers to Peer into the Future

The picture that emerges from deeper examination of the surge in contracted tonnes over 2009 and 2010 is fundamentally about a small—but growing—cadre of forward-looking buyers and investors making big bets on the future of the forest carbon markets. Of the 20.1 $MtCO_2e$ for which project developers reported buyer motivations in 2010 (i.e., 69% of the total primary market volume setting aside the volumes without reported motivations), 45% was contracted to buyers who plan to resell the credits. Considering that 50% of the entire volume contracted in 2010 came from projects that have not yet been validated under a third-party standard, the buyers and investors in these projects are clearly convinced that the future of the forest carbon market is resolved enough to justify the calculated risk of upping financial support for these projects to historic levels.

At the same time, nearly every project developer who predicted the future size of the forest carbon markets this year envisioned growth. However, the overwhelming majority of these respondents this year failed to predict the scale of growth seen in 2009 and 2010, even with 2009 already in the rearview. The fact that most project developers dramatically underestimated the market activity in 2009 and 2010 suggests that fundamental data on the size and shape of the forest carbon market is still not widely known.

To gauge the amount of credits in the pipeline, Ecosystem Marketplace asked project developers to provide the number of credits they plan to generate from 2011 to 2015. Tallying up the five-year supply from a total of 287 projects, project developers reported a total of 373 $MtCO_2e$ to be generated (see Table 2). The overwhelming source of anticipated supply over the next five years comes from 60 REDD projects. A total of 213 AR, 14 IFM, and 9 Agro-forestry projects were also planning to add to the mix, but collectively provide only 10% of the projected supply.

Table 2: Supply Estimated for 2011-2015 by Project Developers

Market	Volume by Project Type ($MtCO_2e$/5yr)				
	AR	IFM	REDD	Agro-forestry	TOTAL
Voluntary OTC	11.4	6.4	331.0	3.5	352.2
CCX	--	0.9	--	--	0.9
Total Voluntary Markets	11.4	7.3	331.0	3.5	353.1
Australia	2.0	1.2	--	--	3.4
California (ARB/CAR)	<0.1	0.6	4.3	--	4.8
CDM	11.7	--	--	--	11.7
NZ ETS	0.1	--	--	--	0.1
Total Regulated Markets	13.8	1.7	4.3	--	20.0
Total Global Markets	25.1	9.0	335.3	3.5	373.1

Notes: Based on 147 survey responses covering 287 projects. Values may not sum to totals due to rounding.

Source: Ecosystem Marketplace

It is important to take both the current market volumes and these projected five-year supplies in context. Project developers and buyers—including several interviewed for this report—often readily admit they tend to have a rosy view of the credit volumes coming from their projects. In most circumstances, the volume eventually delivered to market is only a fraction of the grand vision originally conceived at the outset of a project. We would thus encourage readers to view these five-year volumes in this more conservative context. Nevertheless, several market players and project developers interviewed by Ecosystem Marketplace raised concerns regarding a potential oversupply of credits in the near future.

What to Watch

The hard work of non-governmental organizations (NGOs) in the early days of the markets, followed more recently by standards organizations and the private sector, is now paying off through a dramatic uptick in supply coming from all over the world. Although it is impossible to tell how much of the volume contracted in 2010 and in the pipeline will actually make it to market, it is fairly certain that supply will continue to grow rapidly.

Currently, buyers purchase most credits voluntarily, but regulatory drivers hold a critical key to unlock larger climate impacts and market demand. Across the global markets, a number of influential political choices remain to be made, and a host of market drivers remain uncertain. The consensus among dozens of market players interviewed for this report, including leaders of standards organizations and major buyers and project developers, is that the forest carbon market is entering a phase where growth will be fundamentally tied to finding and creating new demand for forest carbon credits.

Many market players are keeping their eyes on international climate negotiations, looking to the upcoming United Nations Framework Convention on Climate Change (UNFCCC) meetings in Durban, South Africa for continued progress toward an international REDD+ mechanism and confirmation that it will be market-linked. Several buyers and project developers reported the billions of dollars in public pledges for building REDD+ readiness as a sign that forest carbon will ultimately be supported in whatever international market or incentive programs develop.

Many policymakers are already taking more concrete steps in their own countries and states. Although still in early stages, promising developments are surfacing in emerging marketplaces in China and Japan with a welcoming role for forests in the fight against climate change. California is poised to open market trading for its cap-and-trade scheme in 2012 and is cracking open the door to be the first compliance carbon market to welcome international REDD credits.

The technical capacity for accounting and delivering carbon reductions using a national or sub-national/jurisdictional accounting lens alongside project-level interventions (also known as "nesting") is likely to be a critical dialogue to watch. Progress to deliver state-level forestry-based climate mitigation continues to be the order of the day for the Governors' Climate and Forests Taskforce (GCF), which produced a groundbreaking commitment in November 2010 for the governments of California, Chiapas (Mexico), and Acre (Brazil) to work on establishing a framework for producing forest carbon credits. Both the GCF and VCS have working groups dedicated to the subject of jurisdictional accounting and project nesting that are populated with major decision-makers and movers in forest carbon policy and markets. In addition, The Reserve is preparing a protocol for forest carbon activities in Mexico utilizing a nested approach that is expected by the end of 2011.

Answers to some of the bigger questions informing the market outlook, however, still remain unclear. For example, will these new policies arrive in time to bring the additional demand many observers see as necessary to sustain the current portfolio of projects?

Policymakers are in the midst of developing funding for forest conservation at an unprecedented scale. A number of innovative solutions have evolved to both overcome many of the earlier hurdles facing market-based forest conservation efforts and attract private sector investment, but the scope of these markets is still relatively small in the face of global forest loss and a changing climate. The fate of these markets and projects will in large part rest in the hands of policymakers. 2010 was undoubtedly a critical year in the history of the forest carbon markets, but the most consequential chapters in this story still remain to be written.

Premium Sponsors

Wildlife Works is the world's leading REDD project development and management company with a unique approach to applying innovative market-based solutions to biodiversity conservation and helping local landowners in the developing world monetize their forest and biodiversity assets whether they are governments, communities, ownership groups, or private individuals. In 2011, Wildlife Works' flagship Kasigau Corridor REDD Project was the first in the world to achieve validation, verification and issuance of REDD carbon credits under the VCS and CCB standards. The Wildlife Works Kasigau Corridor REDD Project protects over 500,000 acres of forest and brings the benefits of direct carbon financing to Kenyan communities while also securing the entire wildlife migration corridor between Tsavo East and Tsavo West National Parks. Wildlife Works is actively developing a portfolio of REDD projects with an aim to protect five million hectares of native forest, mitigating 25 million tons of CO_2 emissions per year, and creating thousands of sustainable jobs in rural communities.

ERA Ecosystem Restoration Associates Inc. (www.eraecosystems.com) is a Canadian based pioneer in forest restoration and conservation carbon offset projects. ERA has delivered over one million tonnes of carbon offsets to the voluntary market. Beginning with our British Columbia based Community Ecosystem Restoration Program (CERP) in 2005, our portfolio of project activities has grown to include forest carbon projects in Canada, Africa, New Zealand and the United States. We currently work in the voluntary markets, developing compliant markets in North America, and international REDD markets. ERA's clients and product users include Air Canada, Catalyst Paper, Rolling Stone Magazine, HSE – Entega, The Forest Carbon Group AG, the Globe Foundation and Shell Canada Limited. ERA's carbon offset products are validated and verified to ISO-14064, CCBA, PFSI-VER, VCS and CAR standards.

The World Bank BioCarbon Fund (www.wbcarbonfinance.org) has mobilized a fund to demonstrate projects that sequester or conserve carbon in forest and agro-ecosystems. The Fund, a public/private initiative administered by the World Bank, aims to deliver cost-effective emission reductions, while promoting biodiversity conservation and poverty alleviation. The Fund is composed of two Tranches: Tranche One started operations in May 2004, has a total capital of $53.8 million; Tranche Two was operationalized in March 2007 and has a total capital of $36.6 million. Both Tranches are closed to new fund participation.

The BioCarbon Fund considers purchasing carbon from a variety of land use and forestry projects; the portfolio includes Afforestation and Reforestation under the Clean Development Mechanism (CDM), and Reducing Emissions from Deforestation and Degradation (REDD) and sustainable land management/ agricultural soil carbon in the voluntary market.

Sponsors

Our mission is to inspire fresh thinking that creates economic opportunity, social equity and environmental well-being. Ecotrust (www.ecotrust.org) is headquartered in Portland Oregon and is a unique organization; it integrates public and private purpose and for-profit and non-profit structures. Ecotrust's many innovations include co-founding the world's first environmental bank and starting the world's first ecosystem investment fund. For the past several years, we have been a pioneer in the development of forest carbon policy and offset projects in the Pacific Northwest. We created the first Agriculture, Forestry, and Other Land Use (AFOLU) methodology to complete the Verified Carbon Standard double approval process (VM0003 v1.0), and have served on climate change working groups that established the Climate Action Reserve's *Guidelines for Aggregating Forest Projects* and produced recommendations for the Oregon Global Warming Commission's *Forestry Roadmap to 2020.* Our for-profit partner Ecotrust Forest Management, Inc. owns and manages over 13,000 acres of timberland in Oregon and Washington to generate revenue streams from timber sales, carbon credits, and other ecosystem services.

Face the Future (www.face-thefuture.com), is a pioneering forest carbon project developer based in the Netherlands with over 20 years of international forestry experience in the context of carbon markets. Face the Future designs and implements forestry projects worldwide that aim to mitigate and adapt to climate change and provide measurable social and biodiversity benefits to local communities. In addition to project development, Face the Future also offers a range of consultancy services including project feasibility assessments, PDD writing, project implementation, project marketing and the design of national and sub-national REDD+ readiness strategies. To date, Face the Future has established over 50.000 hectares of new forests and sustainably manages over 100.000 hectares of existing natural forests across 4 continents. As a result of these initiatives, over 2,3 million tons of CO_2 have been sequestered, verified and transacted in the voluntary carbon market.

The Forest Carbon Group (www.forestcarbongroup.de) works to protect and restore forests and their manifold ecosystem services. It offers companies tailor-made solutions for becoming more sustainable and carbon neutral using the mechanisms of the voluntary carbon market. The full service approach includes identifying, developing and financing forestry projects worldwide, and providing guidance in marketing and communications to leverage the potential of companies' sustainable investment. Founded in 2009, the Forest Carbon Group consists of specialists with experience in carbon markets, forestry, project development, marketing, communications and financing. The company's headquarters is in Frankfurt, Germany.

Baker & McKenzie (www.bakermckenzie.com) was the first law firm to recognize the importance of global efforts to address climate change and the importance of such legal developments to our clients. For more than fourteen years, our dedicated team of more than 60 lawyers has worked on numerous pioneering deals, including writing the first carbon contracts, setting up the first carbon funds and advising on the first structured carbon derivative transactions. We continue to be the adviser of choice on market developments, advising on the first REDD project, post-2012 carbon funds and legal regimes around carbon capture and storage. Our team advised on the first carbon forest transactions, the establishment of the BioCarbon Fund and more recently a range of REDD transactions and REDD Funds. Our leadership and depth are represented in the market-leading publications we have been asked to draft, including the CDM and JI Rulebooks www.cdmrulebook.org and www.jirulebook.org respectively, as well as the Emissions Trading & New Energy Global Law Guide, the world's first online subscription service on climate change law. Since 2008, leading legal directory Chambers & Partners Global ranked our practice as number one.

Det Norske Veritas (http://www.dnv.com) is a global provider of services for managing risk, helping customers to safely and responsibly improve their business performance. Established in 1864, the company has a global presence with a network of 300 offices in 100 countries, and is headquartered in Oslo, Norway. DNV has continually been at the forefront of the climate change response, starting in 2004 with its recognition as the first Designated Operational Entity to be accredited under the Kyoto Protocol by the UNFCCC. DNV is accredited by ANSI to perform validation and verification services for the validation/verification of project level GHG assertions. Our core climate change services include validation and verification of GHG offset projects and verification of GHG inventories. DNV is the global market leader in the validation and verification of CDM projects and is fully accredited to provide the complete range of validation and verification services under requirements established by UNFCCC, the Verified Carbon Standard Association, Gold Standard, the California Air Resources Board, the Climate Action Reserve, the American Carbon Registry and the governments of British Columbia and Alberta, Canada.

FOREST TRENDS

The Family of Forest Trends Initiatives

Marine Ecosystem Services Program
MARES

Using innovative financing to promote the conservation of coastal and marine ecosystem services

Ecosystem Marketplace

A global platform for transparent information on ecosystem service payments and markets

Forest Trade & Finance

Bringing sustainability to trade and financial investments in the global market for forest products

the katoomba group

Building capacity for local communities and governments to engage in emerging environmental markets

BBOP

Business and Biodiversity Offsets Program, developing, testing and supporting best practice in biodiversity offsets

CHESAPEAKE FUND

Building a market-based program to address water-quality (nitrogen) problems in the Chesapeake Bay and beyond

the katoomba Incubator

Linking local producers and communities to ecosystem service markets

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