Maneuvering the Mosaic
State of the Voluntary Carbon Markets 2013
Support from sponsors, stakeholders and survey respondents enabled our most comprehensive report to date.

**Largest number** of survey respondents, **Most countries** ever represented, and **Widest array** of variables ever tracked and reported.

Over 300 survey responses again in 2013, from suppliers in 55 countries.

Surveyed exchanges, all major registries; surveys in 3 languages.

Agnostic on credit quality, but do conduct extensive due diligence and peer review of preliminary findings.

All findings volume-weighted for significance.
KEY TAKEAWAYS

✓ The market for carbon offsetting grew in 2012 – in tonnes transacted, in new project and buyer locations impacted, and innovations in mitigation, despite challenges to compliance offset mechanisms in EU and US.

✓ Corporate social responsibility, industry leadership and pre-compliance were primary drivers of voluntary demand for carbon offsets last year.

✓ Sustainable development and “co-benefits” were a key focus – both within and beyond carbon frameworks.

✓ Voluntary programs played an increasingly significant role in the development of domestic carbon price mechanisms.

✓ Voluntary offset supply was not flooded by stranded assets from the Clean Development Mechanism (CDM) in 2012 - but is also not immune.
EXECUTIVE SUMMARY
Figure 1: Historical Offset Demand by Transacted Volume, All Voluntary Carbon Markets

Notes: Based on 763 MtCO₂e of offsets transacted and reported to Ecosystem Marketplace over 7 survey years.
FIGURE 2: HISTORICAL MARKET SHARE, TRANSACTED VOLUME BY PAYMENT METHOD

Notes: Based on 65.5 MtCO₂e associated with a contract type.
Figure 3: Transacted Volume and Average Price by Buyer and Seller Types, OTC 2012
$/MtCO₂e

Notes: Based on 324 organizations reporting 66 MtCO₂e associated with business roles and buyer types.
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Notes: Based on 81 MtCO₂e associated with a buyer region.
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Notes: Based on 87 organization responses.
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MtCO$_2$e and % Share

Notes: Findings pertain to the 75.5 MtCO$_2$e associated with a response to this question, including “N/A” and “Other”.
Notes: Percentages and totals may not sum perfectly due to rounding.
Notes: Percentages and totals may not sum perfectly due to rounding.
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Notes: Based on 80 MtCO₂ associated with either offset project or buyer location.
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Notes: Based on 763 MtCO₂e of offsets transacted and reported to Ecosystem Marketplace over 7 survey years.
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Notes: Based on $3.6 billion in voluntary offset market value transacted and reported to Ecosystem Marketplace over 7 survey years.
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Notes: Based on 1,142 reported transaction prices associated with 74 MtCO2e.
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Notes: Based on 324 organization responses.
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% Share and $/tCO₂e

Notes: Based on 324 organization responses reporting 95 MtCO₂e transacted.
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% Share

Notes: Based on 324 organizations reporting 95 MtCO₂e transacted.

% Share and $/tCO₂e

Notes: Based on 324 organizations reporting 77 MtCO₂e transacted
FIGURE 21: TRANSACTED VOLUME AND AVERAGE PRICE BY BUYER AND SELLER TYPES, OTC 2012
$/tCO₂e

Notes: Based on 324 organizations reporting 66 MtCO₂e associated with business roles and buyer types. 
Notes: Based on 33 supplier responses and data provided directly by three platforms – altogether representing 2 MtCO₂e transacted.
OFFSET ORIGINS
FIGURE 23: TRANSACTED VOLUME BY PROJECT CATEGORY, OTC 2012
MtCO₂e and % Share

Notes: Findings pertain to the 75.5 MtCO₂e associated with a response to this question, including “N/A” and “Other”.
Notes: Findings pertain to the 75.5 MtCO₂e associated with a response to this question, including “N/A” and “Other”.
Figure 25: Historical Transaction Volumes, VCS+CCB and Other Forestry Standards

MtCO₂e

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MtCO₂e and $/tCO₂e

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MtCO$_2$e and $/tCO$_2$e

Notes: Findings based on 16 MtCO$_2$e associated with forestry offsets and a response to both transaction-level and buyer-type questions.
FIGURE 28: TRANSACTED VOLUME AND AVERAGE PRICE BY BUYER AND SELLER TYPES, RENEWABLES OFFSETS, 2012
MtCO₂e and $/tCO₂e

Notes: Findings based on 26 MtCO₂e associated with renewable energy offsets and a response to both transaction-level and buyer-type questions.
FIGURE 29: TRANSACTED VOLUME AND AVERAGE PRICE BY PROJECT TYPE, 2012

Notes: Findings based on 77 MtCO$_2$e associated with transaction-level price, volume, and project type.
FIGURE 30: CHANGE IN TRANSACTED VOLUME AND AVERAGE PRICE BY PROJECT TYPE, 2011-2012

Figure 31: Change in Transacted Volume and Average Price by Project Region, 2011-2012

Notes: Findings based on 79 MtCO₂e associated with transaction-level price, volume, and project location.
Figure 32: “Uniqueness” Preference: Comparison of Historical Transaction Volumes from Popular Project Types

Notes: Based on 28 MtCO₂e associated with survey responses that report project type, location, and transaction volume. 
Market Infrastructure

% Share

Notes: Based on 70 MtCO₂e associated with the use an independent third-party project standard.
FIGURE 34: MARKET SHARE BY CO-BENEFITS

Notes: Based on 31.5 MtCO$_2$e associated with the use of an additional co-benefits standard or project area label.
FIGURE 35: Market Share by Domestic Project Standard, 2012

Notes: Based on 18 MtCO₂e associated with the use of an additional co-benefits standard or project area label. Source: Forest Trends’ Ecosystem Marketplace. State of the Voluntary Carbon Markets 2013.
FIGURE 37: TRANSACTED VOLUME AND AVERAGE PRICE BY VARIOUS PROJECT STANDARDS AND CERTIFICATIONS, 2011-2012

Notes: Based on 70 MtCO₂e associated with the use of an independent third-party project standard.
**Figure 38: Market Share and Average Price by Project Stage, Popular Project Types 2011-2012**

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<td>$7</td>
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<td>VCS Afforestation/Reforestation</td>
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<td>VCS REDD</td>
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**Notes:** Based on 50 MtCO$_2$e in 2012 and 4 MtCO$_2$e associated with use of select project standards, project types and project stages. **Source:** Forest Trends’ Ecosystem Marketplace. State of the Voluntary Carbon Markets 2013.
**Figure 39: Market Share of Issued Offsets by Registry, 2012**

% Share

- **52%**: APX
- **38%**: Markit
- **3%**: K-VER Registry
- **3%**: GHG Clean Projects Registry
- **4%**: CDC Climat
- **0.3%**: CFI Registry
- **0.5%**: J-VER Registry

*Sources: APX, Markit, J-VER, K-VER, CDC Climat, GHG CleanProjects Registry, and the AU CFI Registry*
Figure 40: Number of Registered Projects by Project Category, 2012

% Share

- Renewables: 42%
- Forestry and land use: 22%
- Methane: 10%
- Energy efficiency and fuel switch: 20%
- Other: 3%
- Gas: 3%

DETAILS OF THE DEALS
FIGURE 41: MARKET SHARE BY BUYER ORGANIZATION TYPE, OTC 2012

% Share

- Multinational corporation: 36%
- Small to medium-sized enterprise: 13%
- Domestic corporation: 10%
- Other private sector buyer: 5%
- Other not-for-profit / NGO: 1%
- Individuals: 1%
- National government / public agency: 1%
- Conservation-focused NGO: 1%
- Development-focused NGO: 0.2%
- Development multilateral: 0.1%
- 1.9%

Notes: Based on 75 MtCO₂e associated with a buyer organization type.
**Figure: Market Share of Transacted Volume by Buyer Type, OTC 2012**

% Share

- Multinational corporation: 36%
- Small to medium-sized enterprise: 13%
- Domestic corporation: 5%
- Other private sector buyer: 2%
- Other not-for-profit/NGO: 1%
- Individuals: 1%
- National government/public agency: <1%
- Conservation-focused NGOs: <1%
- Development-focused NGOs: 1%
- Development multilateral: 10%

**Figure 42: Transacted Volume Sold to and by Retailers, OTC 2012**

MtCO$_2$e

FIGURE 43: MARKET SHARE BY BUYER SECTOR, 2012

% Share

- Carbon Market: 38%
- Manufacturing: 13%
- Energy: 13%
- Transportation (air, rail, etc.): 7%
- Finance / insurance: 6%
- Agriculture / forestry: 4%
- Events / entertainment: 4%
- Retail product market: 3%
- Communication / information: 3%
- Food and beverage: 2%
- Tourism: 2%
- Other / mixed: 2%
- Notes: Based on 57 MtCO₂e associated with a buyer organization type.
FIGURE 44: BUYER SECTORS’ DEMAND BY PROJECT CATEGORY, OTC 2012

% Share

Notes: Based on 57 MtCO$_2$e associated with a buyer organization type.
FIGURE 45: TRANSACTED VOLUME, VALUE AND AVERAGE PRICE BY BUYER REGION, OTC 2012
MtCO₂e and % Share

Notes: Based on 81 MtCO₂e associated with a buyer region.
FIGURE 46: HISTORICAL MARKET SHARE, TRANSACTED VOLUME BY PAYMENT METHOD

% Share

Notes: Based on 65.5 MtCO$_2$e associated with a contract type.
FIGURE 47: TRANSACTED VOLUME BY VINTAGE AND BUYER TYPE, OTC 2012

% Share

Notes: Based on 65.5 MtCO$_2$e associated with a contract type.
REGIONAL MARKET DEEP DIVE
**Figure 48: Flow of Transacted Volumes by Offset Supplier and Buyer Region, OTC 2012**

MtCO$_2$e

Notes: Based on 80 MtCO$_2$ associated with either offset project or buyer location.
FIGURE 49: ISSUED, TRANSACTED, RETIRED VOLUMES (ALL YEARS) AND AVERAGE PRICE (2012) BY VINTAGE: ASIA

FIGURE 50: ISSUED, TRANSACTED, RETIRED VOLUMES (ALL YEARS) AND AVERAGE PRICE (2012) BY VINTAGE: NORTH AMERICA

FIGURE 51: CHANGE IN TRANSACTED VOLUME AND AVERAGE PRICE, CALIFORNIA OFFSET TYPES, 2011-2012

Notes: Based on 9.7 MtCO₂e associated with California pre-compliance demand. ‘CAR and CARB Forestry’ refers to CAR early action and CARB-approved protocol forestry offsets and consists of CAR/CARB IFM and CAR avoided conversion. “Not Specified” includes both CAR early action and CARB-approved protocols for which a project type was unknown/not reported. “Other” includes coal mine and waste water methane, CAR agricultural N₂O, and landfill methane from multiple standards.

Figure 52: Projected California Offset Demand and Supply, Supplier-Reported, CAR Registered Projects’ Offsets Pipeline, and ACR-Estimated Technical Capacity for Emissions Reductions, 2013-2017

Notes: Based on 86 MtCO₂e associated with survey-reported California compliance offset project pipelines. “Other” includes coal mine and waste water methane; CAR agricultural N₂O and landfill methane from multiple standards. California-eligible CRT issuance, retirement and estimated annual reductions supplied by CAR. Technical issuance capacity estimates provided by ACR and elaborated in the standard’s 2012 report.

FIGURE 53: SURVEY RESPONDENTS’ ESTIMATED 5-YEAR CALIFORNIA OFFSET PIPELINE BY PROJECT TYPE, 2013-2017
MtCO₂e and % Share

Notes: Based on 86 MtCO₂e associated with survey-reported California compliance offset project pipelines. “Other” includes coal mine and waste water methane, CAR agricultural N₂O, and landfill methane from multiple standards.
FIGURE 54: ISSUED, TRANSACTED, RETIRED VOLUMES (ALL YEARS) AND AVERAGE PRICE (2012) BY VINTAGE: LATIN AMERICA

FIGURE 55: ISSUED, TRANSACTED, RETIRED VOLUMES (ALL YEARS) AND AVERAGE PRICE (2012) BY VINTAGE: AFRICA

PROJECTIONS
**FIGURE 56: MARKET PROJECTIONS, HISTORICAL DATA AND SUPPLIER PREDICTIONS**

Notes: Based on 87 organization responses.
Figure 57: Market Projections, Supplier-Estimated Project Pipeline Volume and Value, 2013-2017

Notes: Based on 351 MtCO₂e pipeline targeted toward voluntary buyers as reported by suppliers, excluding estimates >50 MtCO₂e and pre-compliance market volumes, which are discussed in Box 3.
FIGURE 58: MARKET PROJECTIONS, SUPPLIER-ESTIMATED STANDARD UTILIZATION, 2013

Count

Notes: Based on 436 unique responses.
Support from sponsors, stakeholders and survey respondents enabled our most comprehensive report to date

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