



Outlook: Roles & Direction of Future Carbon Management and Carbon Market

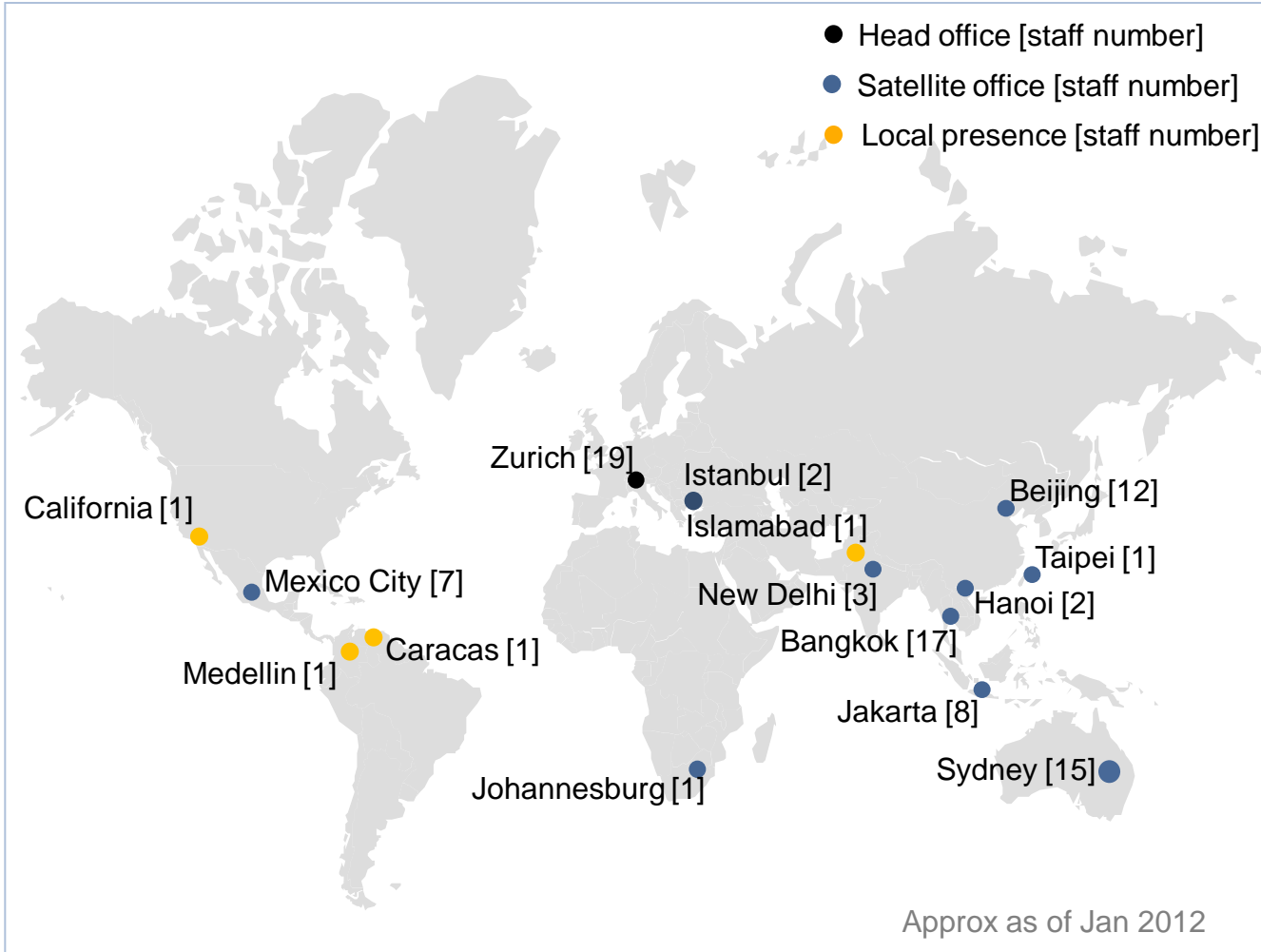


South Pole Carbon

- Current Carbon Market at a glance
 - Direction of Carbon Market
 - Carbon Management
-



South Pole has a wealth of international experience



- Incorporated in July 2006
- 10+ offices worldwide
- Over 75+ carbon professionals
- Projects in 20+ countries
- Specialized in high-quality “Gold Standard” projects
- Developing both voluntary and compliance credits

International Market Leader in compliance and voluntary market



Rated among the World's Best Carbon Companies

- Voted as the **best project developer** by Carbon Finance Magazine for two consecutive years on 2011 & 2012



- Issued more than **15 millions** carbon credits worldwide
- Issued more than **2 millions** carbon credits from Thai projects

Carbon Market Firsts

- Brought to market the **first ever Gold Standard carbon** credits (Biomass Malawalli / India)
- Handled the **first ever international Kyoto carbon credit transfer**
- **First company to cancel CERs**, making sure that they cannot be resold

Premium quality

- **One of the top GS VER developers** with 10% of entire GS VER pipeline
- **Leading developer of GS CER** projects with 25% of entire GS CER pipeline

South Pole references – an extensive network of high quality buyers

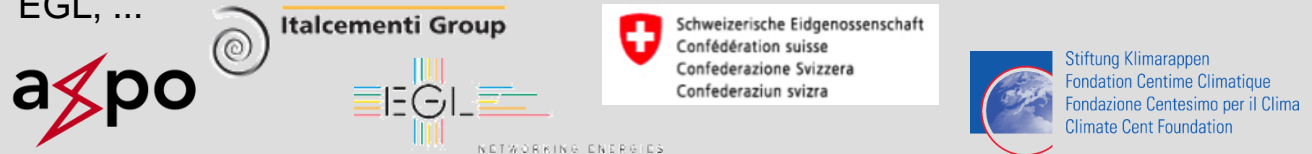


Unparalleled carbon market expertise

- Participation in the UNFCCC Methodology Panel
- Involved in major climate change negotiations since 1997
- Carbon advisory to international organizations (World Bank, European Commission, World Economic Forum, GTZ, Africa Progress Panel, World Food Programme, ...) and to registered CDM projects with a volume of 100 million tCO₂e until 2012

Extensive client network

- Top-rated compliance buyers such as the Austrian Government, Swiss Government, Climate Cent Foundation (Switzerland), Italcementi Group, LUSO Carbon Fund (Portugal), EGL, ...



- Well-known voluntary buyers such as BP, Unilever, Axpo, Swiss Re, WWF, Austrian Post, Eneco Energy, RBC, Greenpeace, Ben & Jerry's, Transoflex, ...)





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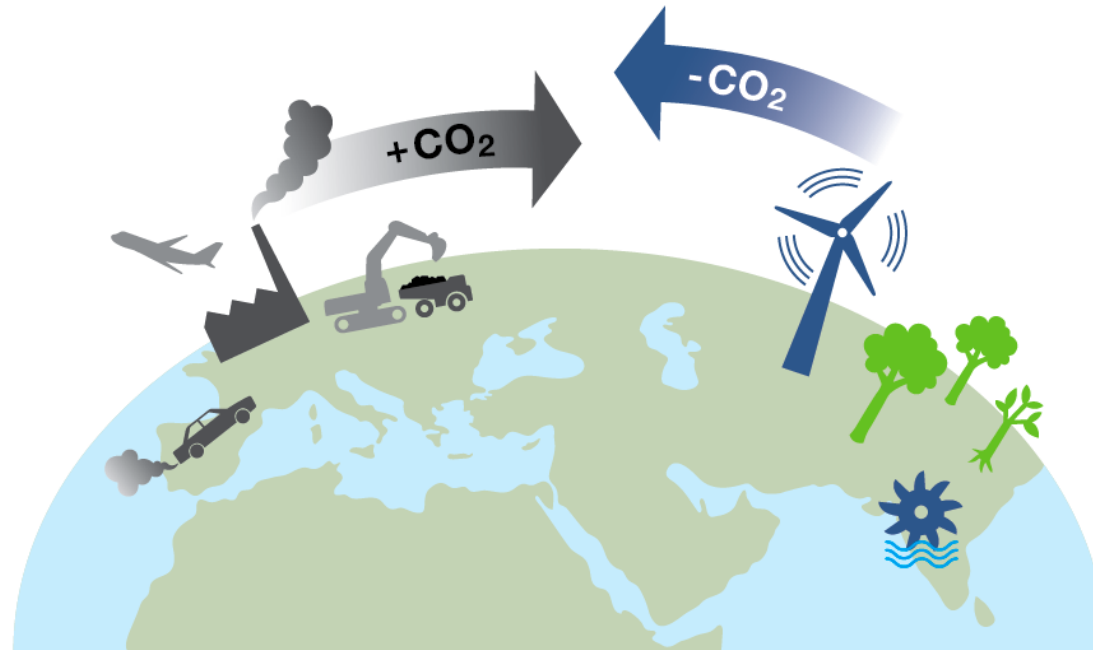
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Carbon credits – how it works



Man-made global warming threatens the basis of life, foremost it is threatening the poorest countries, and increasingly it threatens the standard of living in the industrialized world. Market based mechanisms are a strong and proven tool, beyond energy efficiency and savings, for the fight against climate change.



For every ton of avoided greenhouse gas emissions, achieved e.g. by replacing fossil fuel power with renewable energies, the project owner is receiving so called carbon credits which can be sold to companies and institutions with a voluntary or compliance carbon reduction strategy.



Compliance and voluntary carbon markets

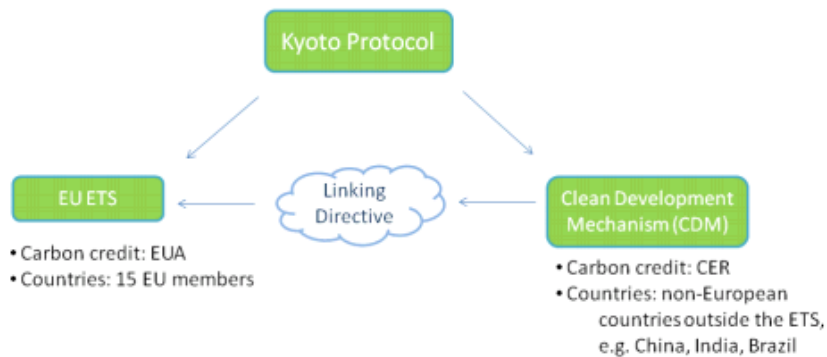
	Examples	Key features
Compliance markets 	<ul style="list-style-type: none">• EU Emission Trading Scheme• Kyoto Protocol Market• New Zealand Emission Trading Scheme...	<ul style="list-style-type: none">• Different types of compliance carbon credits• Kyoto credits (CDM and JI) can be sold to Kyoto and EU markets• High liquidity• Unit price varies little across projects, but premium for Gold Standard certified projects
Voluntary markets 	<ul style="list-style-type: none">• GS VERs• VCUs• VERs for Chicago Climate Exchange• ...	<ul style="list-style-type: none">• Carbon credits generated on the basis of voluntary standards• Not suitable for compliance purposes (Kyoto)• Prices vary with quality and origin of projects, with Gold Standard projects fetching the highest price



Compliance Market

- Phase I – From 2005 to 2007
- Phase II – From 2008 to 2012
- Phase III – From 2013 to 2020

Member State	1st period cap	2005 verified emissions	Proposed cap 2008-2012	Cap allowed 2008-2012
Austria	33.0	33.4	32.8	30.7
Belgium	62.08	55.58 †	63.33	58.5
Czech Republic	97.6	82.5	101.9	86.8
Estonia	19	12.62	24.38	12.72
France	156.5	131.3	132.8	132.8
Hungary	31.3	26.0	30.7	26.9
Germany	499	474	482	453.1
Greece	74.4	71.3	75.5	69.1
Ireland	22.3	22.4	22.6	21.15
Italy	223.1	222.5	209	195.8
Latvia	4.6	2.9	7.7	3.3
Lithuania	12.3	6.6	16.6	8.8
Luxembourg	3.4	2.6	3.95	2.7



A simplified schematic of a part of the EU ETS



Voluntary carbon market

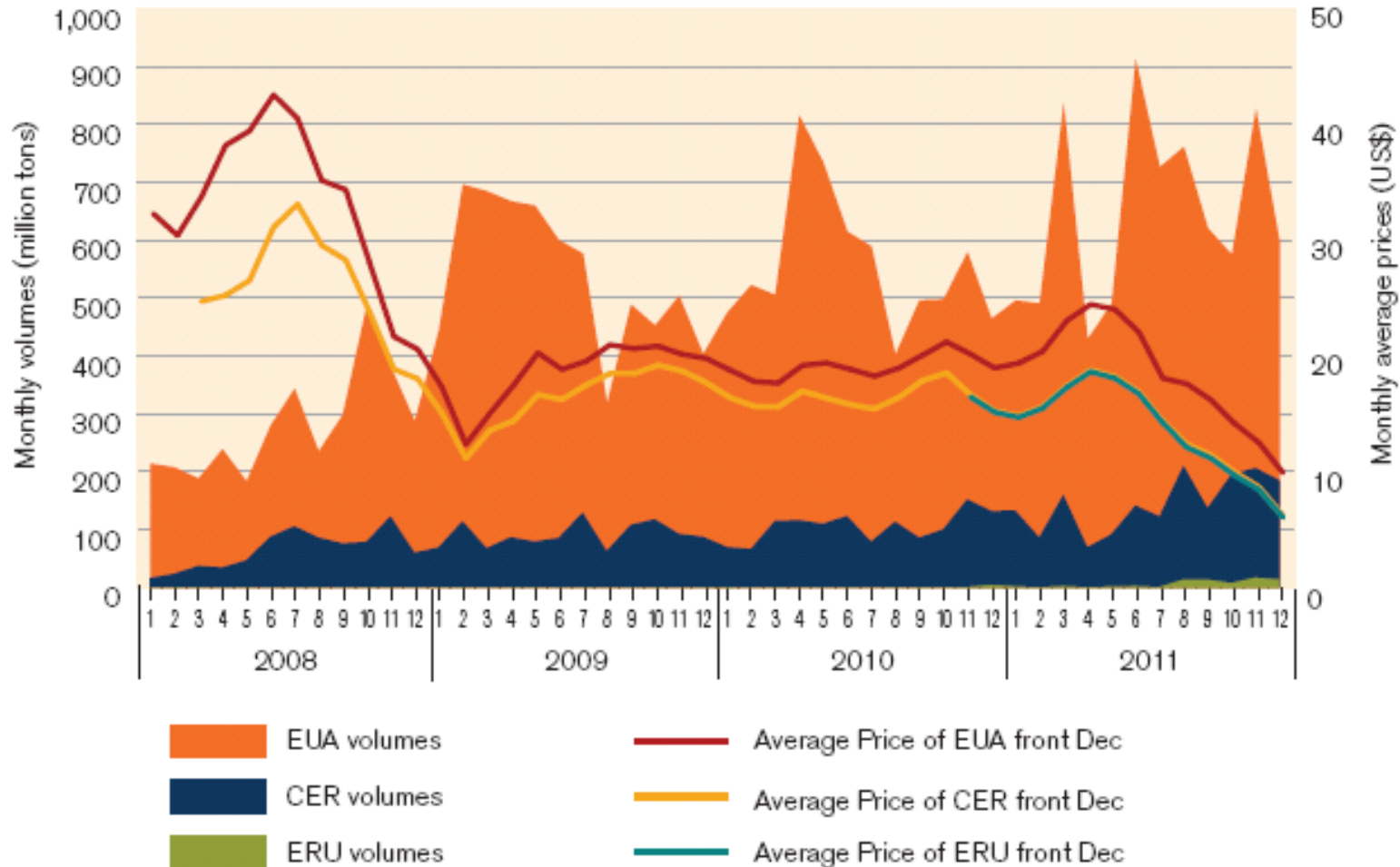
Rank	Motivation	Share
1	Corporate Social Responsibility	32%
2	Public Relations/Branding	22%
3	Resale	22%
4	Anticipation of Regulation or Commodity Investment	19%
5	Greening a supply chain	7%

Location	Volume (MtCO ₂ e)	Value (\$ million)	Market Share
Europe	33	204	47%
North America	29	\$159	41%
Oceania	3	\$22	4%
Asia	3	\$47	4%
Latin America	2	\$23	2%
Africa	.9	\$10	1%

	Voluntary Buyers			Pre-Compliance Buyers		
	Volume (MtCO ₂ e)	Value (\$ million)	Market Share	Volume (MtCO ₂ e)	Value (\$ million)	Market Share
End Use/ Retirement	48	\$259	53%	8	\$64	8%
Secondary Market	26	\$172	28%	4	\$22	5%



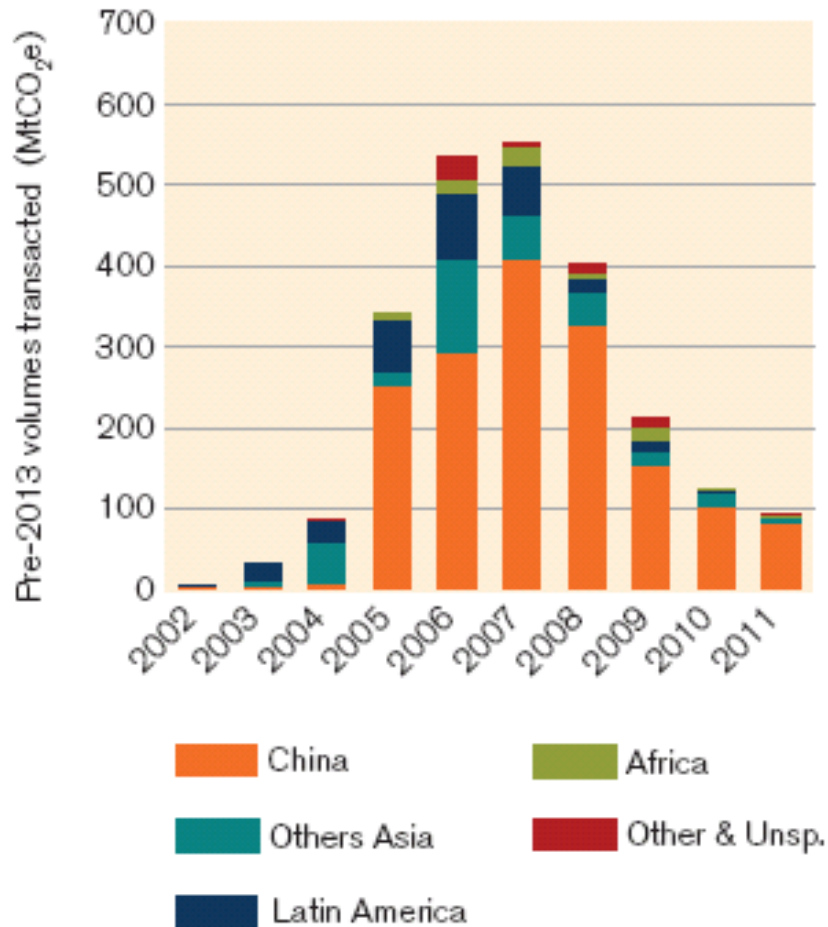
Historical CER price



Source: World Bank



Volume of CDM credits



Source: World Bank



Potential demand, contracted supply, and residual demand

	Potential demand	Contracted CERs and ERUs	AAUs/RMUs	Residual demand	
	(MtCO ₂ e)	nominal (MtCO ₂ e)	Adjusted for performance (MtCO ₂ e)	(MtCO ₂ e)	(MtCO ₂ e)
EU	1,293	2,175	969	79	245
<i>Government (EU-15)</i>	428	259	141	79	208
<i>Private sector (EU ETS)</i>	865	1,916	828	0	37
Japan	300	380	169	194	9
<i>Government of Japan</i>	100	34	15	76	9
<i>Japanese private sector</i>	200	346	154	119	0 (-73)
Rest of Annex B and others	51	29	13	4	35
<i>Government</i>	46	24	11	0	35
<i>Private sector</i>	5	5	2	4	0 (-1)
Total	1,644	2,584	1,151	277	290
<i>Government</i>	574	316	167	154	253
<i>Private sector</i>	1,070	2,267	984	122	37

Note: Numbers may not add up due to rounding. Although the Government of Switzerland is included in "Rest of Annex B and others," we incorporated the CERs and ERUs contracted by private participants based in Switzerland in "Private section (EU ETS)" as we consider that those are purchased by intermediaries based in Switzerland but serving EU ETS participants and EU-15 governments.

174. Source: Thomson Reuters Point Carbon, *Austria to buy 32 mln AAUs: minister*, April 4, 2012.



Reason for the stall

1. Post-Kyoto Uncertainty. There is still no resolution on the future of the Kyoto Protocol, which expires in 2012. This is taking a toll on the Clean Development Mechanism (CDM) market, where emissions reduction projects in developing nations earn credits sold to industrialized countries to meet their Kyoto commitments. The value of the primary CDM market sank 44 percent.

2. Cap-and-Trade Loses Steam. Emissions trading schemes are facing stiff resistance in some regions, including the U.S., Australia and Japan, where governments have been wrestling over cap-and-trade legislation. Even in Korea, which adopted a law that would include cap-and-trade program, has postponed the scheme to 2015, from early next year.

3. Lingering Recessionary Effects. Though many economies around the world picked up in 2010, demand isn't where it could be. Lower emissions mean less demand for carbon trading.





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Potential demand from Non-Annex 1 country after 2012



Country (group of)	Assumptions	Potential demand (MtCO _{2e})
Australia	Carbon Price Mechanism, cap in line with target of 5% below 2000.	348
EU-27, Iceland, Liechtenstein, and Norway	20% below 1990, with differentiation EU ETS and effort sharing.	1,635 ^t
Japan	Between 25% and 0% below 1990.	≤539
New Zealand	NZ ETS: 10% below 1990.	77
North America	Western Climate Initiative (WCI): limited to California and Québec, with international offsets allowed in California only.	94
Switzerland	20% below 1990, with ETS and other measures.	2.3 - 12.8
TOTAL		≤2,706

Notes: For detailed assumptions see Annex 8: Assumptions for Estimates of Potential Demand for Offsets from non-Annex I Countries.

t: Already accounts for an inflow in the EU ETS of 865 million CERs and ERUs during Phase II.

Potential Supply under the CDM and JI



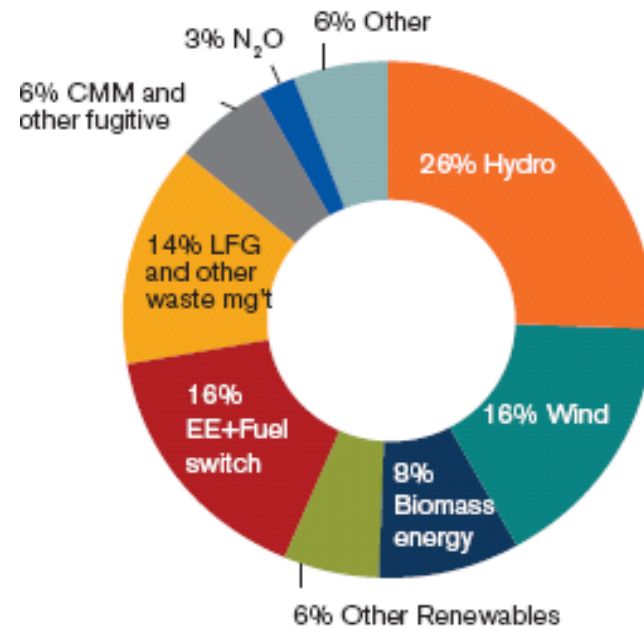
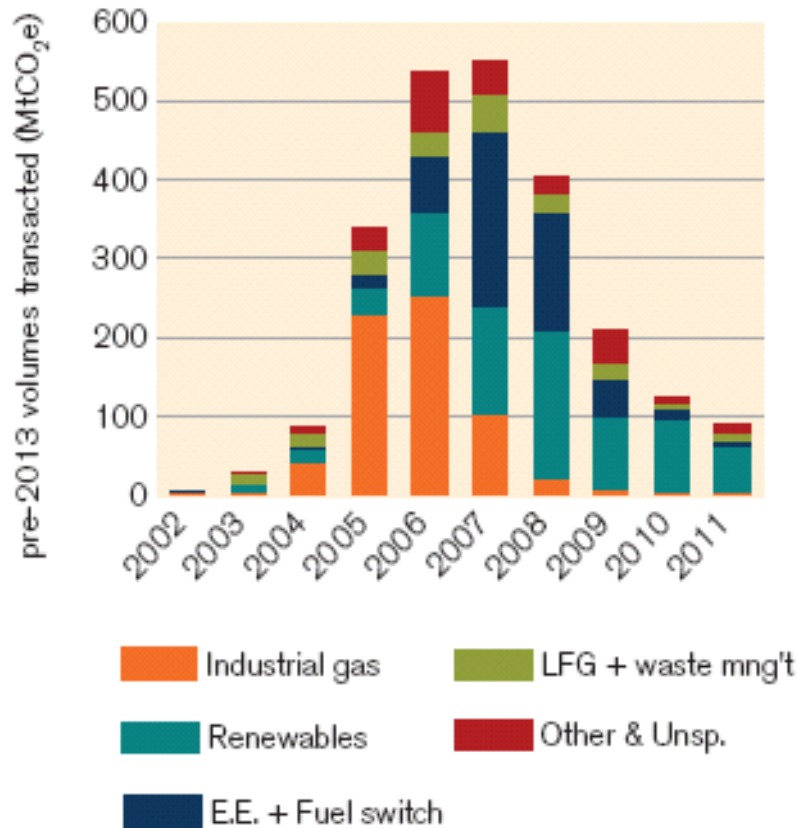
	pre-2013	post-2012	Cummulative (up to 2020)
<i>Point Carbon</i>			
CDM-EU ETS eligible	1,250	2,138	3,388
CDM-other	-	554	554
ERU	296	51	347
Total	1,546	2,743	4,289
<i>Deutsche Bank*</i>			
CDM-EU ETS eligible	1,301	1,847	3,149
CDM-other	2	468	470
ERU	250	-	250
Total	1,553	2,315	3,869
<i>CDC Climat**</i>			
CDM-EU ETS eligible	1,269	3,381	4,651
CDM-other	2	1,415	1,417
ERU	357	-	357
Total	1,628	4,797	6,425

* Secured supply from the first crediting period of projects registered of April 2012.

** Risk-adjusted issuance and full crediting renewal of projects in the CDM pipeline.



Volume of transacted CER

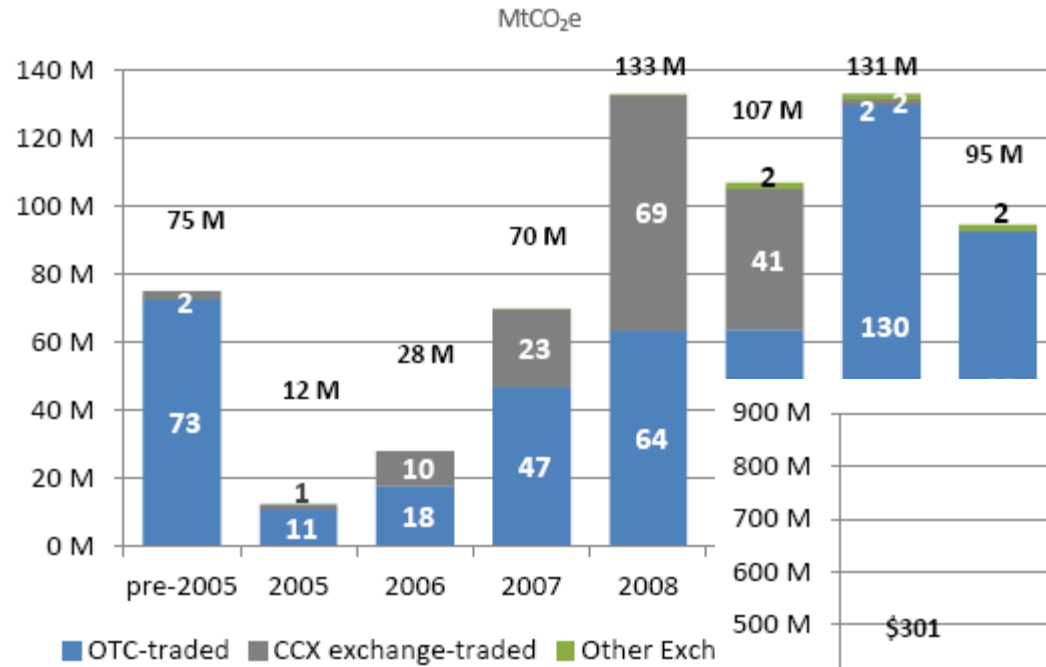


post-2012 pCERs per sector (%) 2011

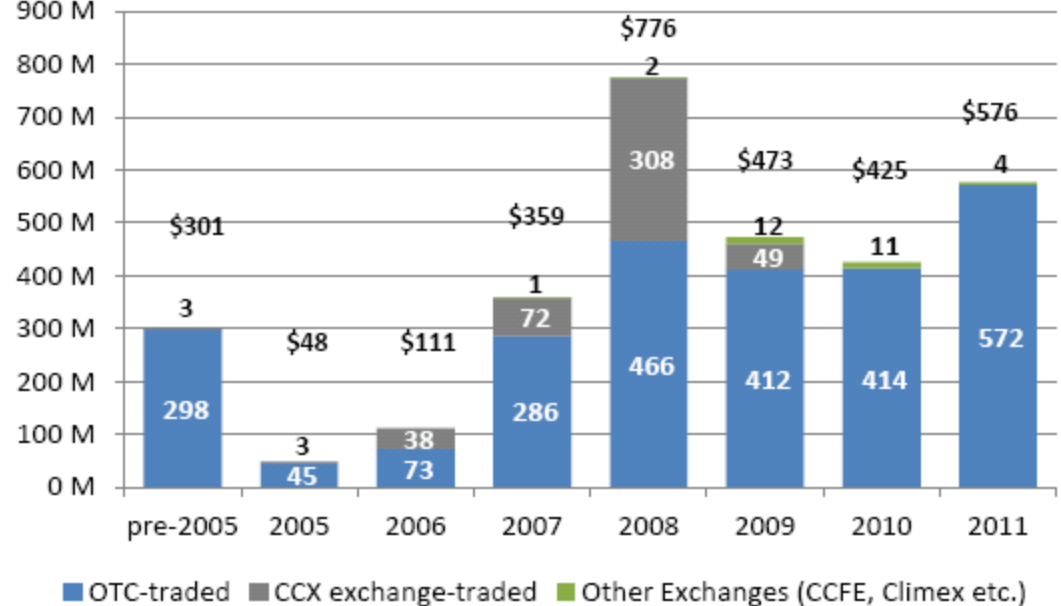
Source: World Bank



Growth of Voluntary Market



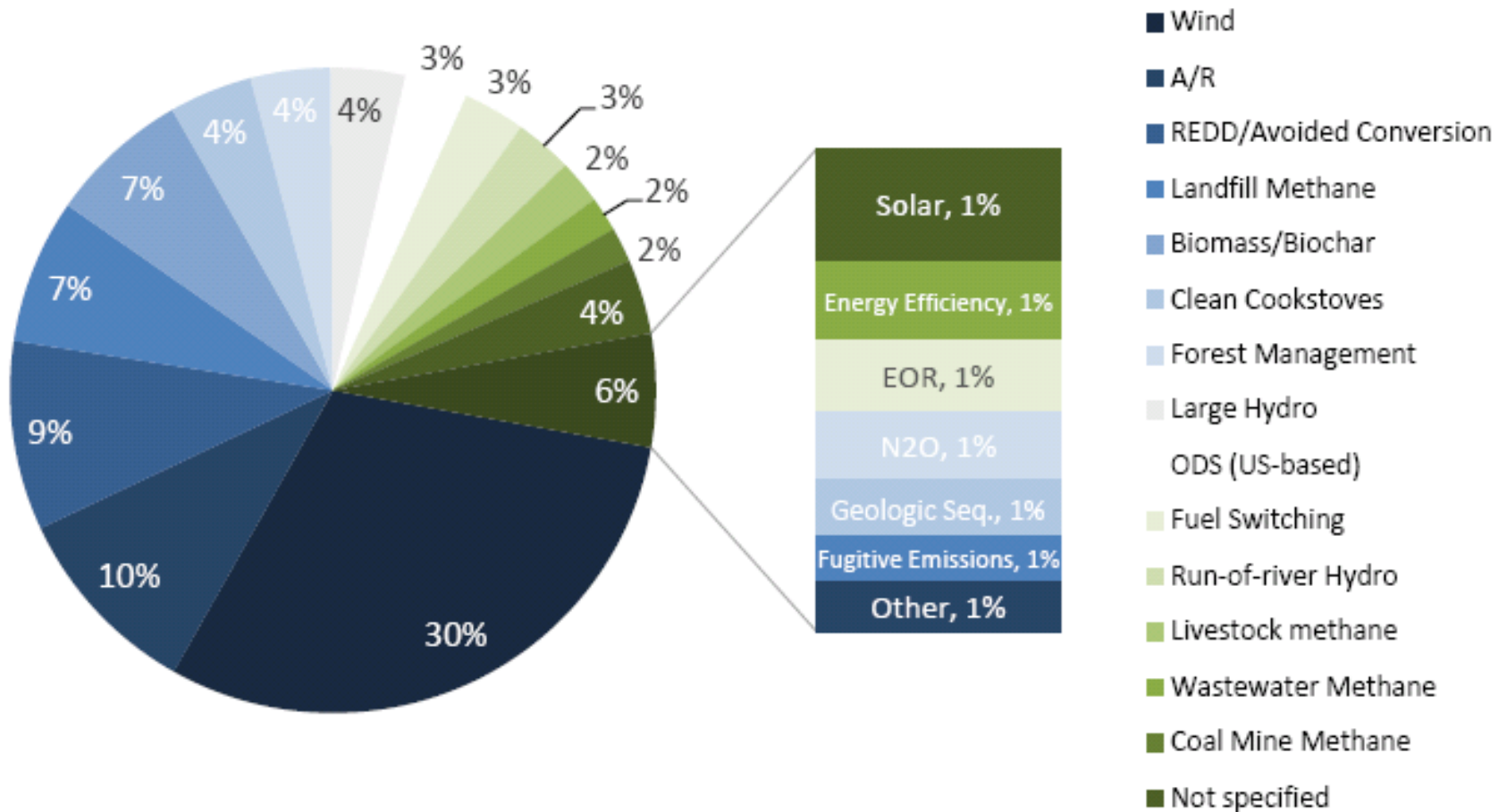
Source: Ecosystem Marketplace. Notes: Based on 1,040 observations due to rounding.



Source: Ecosystem Marketplace. Note: Based on 862 observations.



Type of Projects under Voluntary market



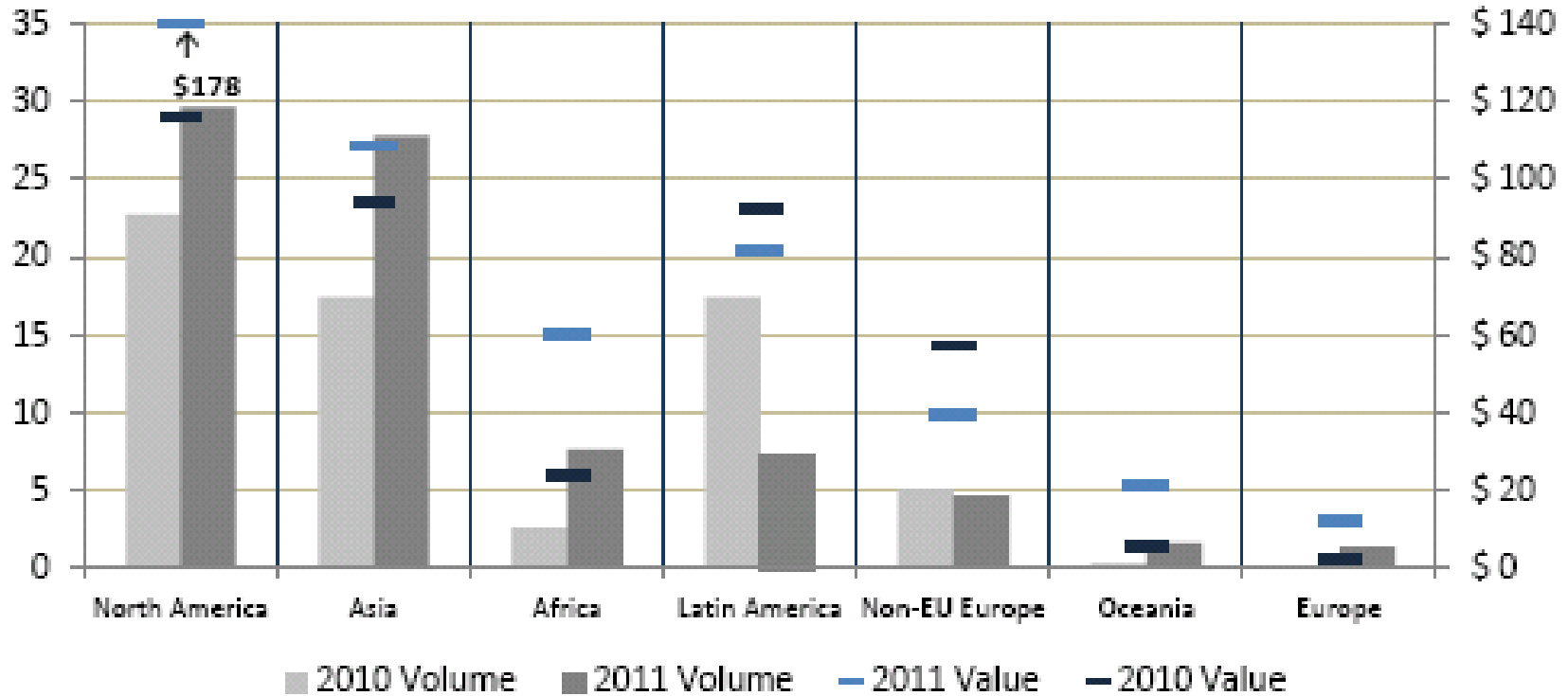
Source: Ecosystem Marketplace. Note: Based on 977 observations.



Voluntary credit volume and value by Region

Figure 2: Change in Volume and Value by Region, OTC, 2010 vs. 2011

MtCo₂e/Million US\$



Source: Ecosystem Marketplace. Note: Based on 1843 survey responses.



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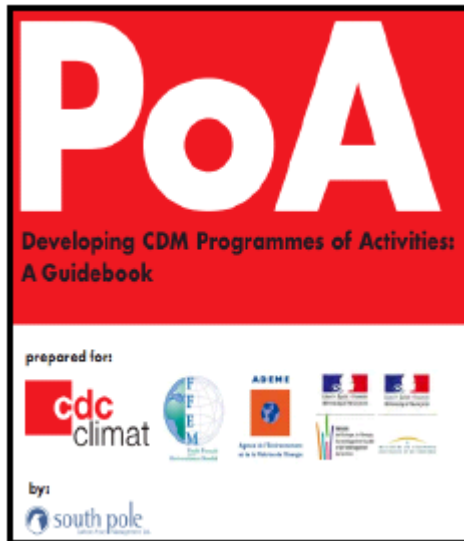
Carbon Management



CDM restriction

International unit	Eligibility*		
	CPM	EU ETS	NZ ETS
CERs	✓	✓	✓
CERs – registered post 2012 and outside of LDCs	✓	✗	✓
CERs - HFC-23, adipic acid, nuclear, afforestation, reforestation and large scale hydro not compliant with World Commission on Dam guidelines	✗	✗	✗ Ex. Large hydro
ERUs	✓	✓	✓
RMUs	✓	✗	✓

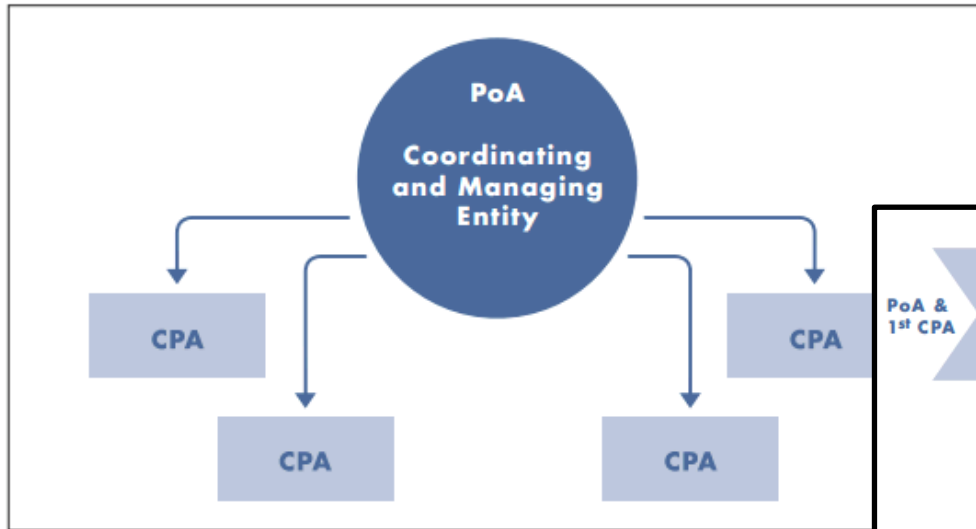
*Subject to restrictions



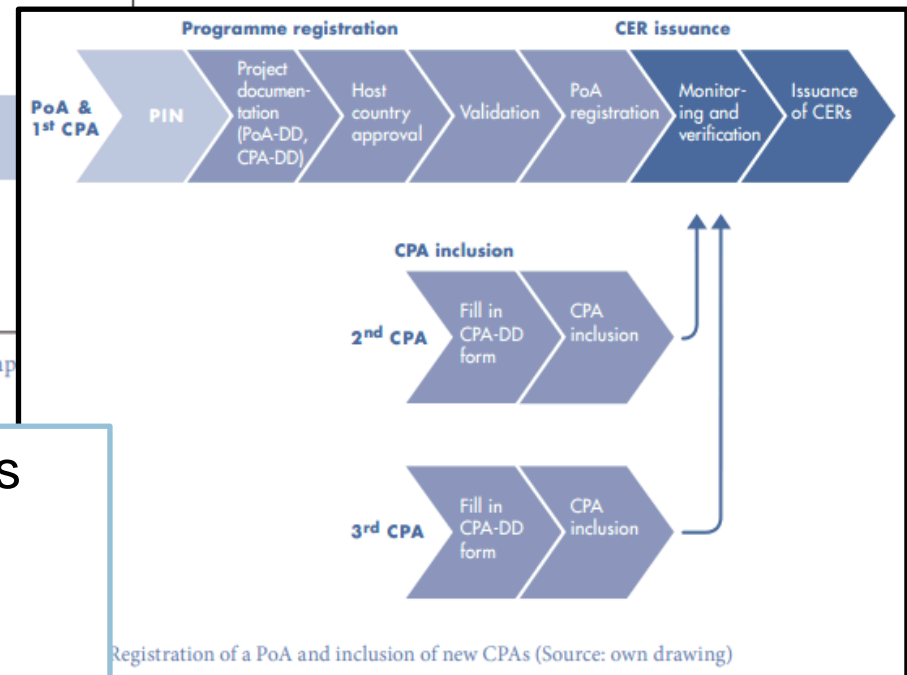
Several options are being explored to extend the CDM after the Kyoto Protocol commitment period ends in 2012. The Programme of Activity (PoA), so far just an extension of the current CDM, is arguably the best option.



CDM Programme of Activity (PoA)



PoA is a framework where many CPAs sharing the same stated goal can be imp



Registration of a PoA and inclusion of new CPAs (Source: own drawing)

Registration PoA in SEA : 5 Projects
(2 South Pole)

Validated PoA in Thailand : 1
(1 South Pole to be registered on
7/8/2012)



Voluntary Carbon Standards

Japan's Offset Credit (J-VER) Scheme – J-VER (2008)

Japan's Ministry of the Environment (MOEJ) launched the J-VER voluntary offsetting scheme as an effort "by and for Japan," with Japan-only internal methodologies (based on ISO-14064), internal registry and complementary Voluntary Carbon Offsetting Activities including Japan Carbon Offset Scheme Neutral that together comprise a purely domestic scheme.

SOCIALCARBON Standard (Version 4.2, 2011)

The SOCIALCARBON Standard is a certification program based on the sustainable livelihoods approach that requires project developers to apply Standard indicators that correlate with six aspects of the project: social, human, financial, natural, biodiversity, and carbon. SOCIALCARBON is another "stacking" standard to be paired with a carbon accounting standard.

Chicago Climate Exchange – CCX (Several publications 2003 - 2012)

After retiring its voluntary cap-and-trade scheme in 2010, last year CCX launched the Chicago Climate Exchange Offsets Registry Program to register verified emission reductions based on a comprehensive set of established protocols.

Gold Standard – GS (Version 2.1, 2009)

The Gold Standard certifies energy-based projects. The standard body conducts in-house audits of auditors, and of all projects before registration and twice during project development. Projects must score "positive" in two of three categories (environment, social development, economic and technological development) against 12 development indicators.

VER+ – VER+ (Version 2.0, 2008)

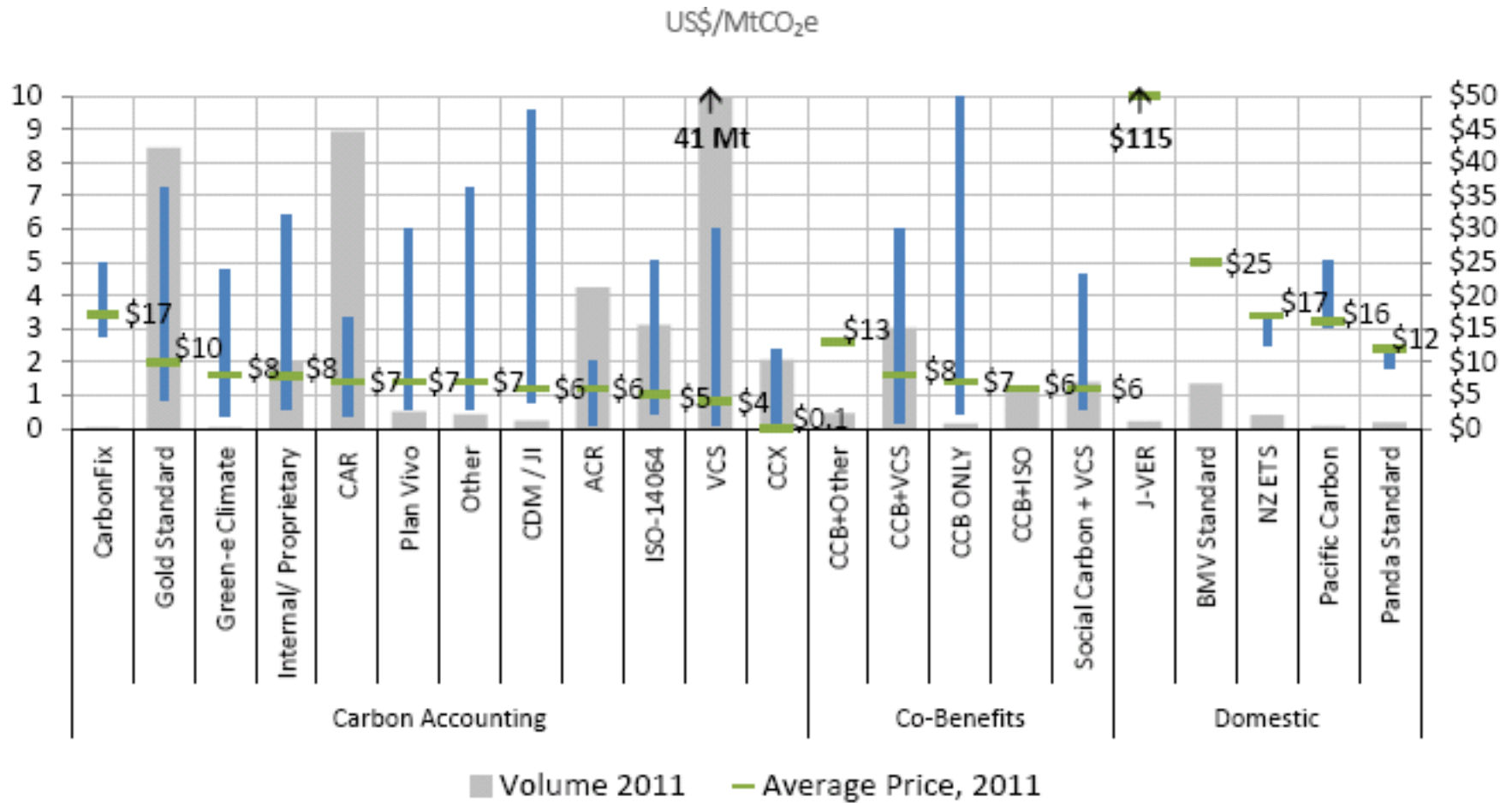
The VER+ Standard is a voluntary offset standard launched by project verifier TÜV SÜD for projects that are not eligible for CDM or JI accreditation but follow the CDM and JI project design methodologies. Projects wishing to receive VER+ accreditation may only be validated and verified by UNFCCC-accredited Designated Operating Entities or AIE organizations.

Verified Carbon Standard – VCS (Version 3, 2011)

The VCS was launched as the Voluntary Carbon Standard in 2007 by The Climate Group, the International Emissions Trading Association, World Economic Forum and the WBCSD. In 2011, VCS saw its first verified REDD credit; in early 2012, released new guidance on standardized methods for additionality and crediting, and technical guidance for nesting REDD projects.



Voluntary market standard's difference





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Thank you for your attention!