

Forest Carbon Markets: Overview and Potential

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Who is Ecosystem Marketplace?





Forest Trends' Ecosystem Marketplace Initiative is the leading global source of information on environmental finance, markets, and payments for ecosystem services.

https://www.forest-trends.org/ecosystem-marketplace



Nature is key to fighting climate change

NATURAL CLIMATE SOLUTIONS

In the next 10-15 years, natural climate solutions can provide more than a third of the emissions reductions needed to hold the Earth's temperature rise to well below 2°C.

25% of the problem

0

More than

30%

of the solution

on o

1%

of the conversation

https://nature4climate.org



Forest carbon offsets are a cost-effective solution

Table 1. Summary of Types of Forest Carbon Finance, 2016 and All Years*

Type of Finance	Name of Finance	2016	All Years*
Market	Voluntary forest carbon offset transactions	\$74.2M	\$996.6M
	Compliance forest carbon offset transactions**	\$551.4M	\$1,573.9M
Non-Market	Payments for REDD+ programs	\$36.5M	\$218.0M
Total		\$662.1M	\$2,788.5M

^{*} Ecosystem Marketplace has been tracking forest carbon finance annually since 2009 but our data goes back as far as the early 2000s, when payments for forest-based emissions reductions were just beginning. "All years" refers to the total finance that we know of to date.

^{**} This compliance market value includes Australia's Emissions Reduction Fund's payments for land-use offsets, worth an estimated \$1.2B across all years, and \$509.5M in 2016. We counted this finance as market-based because contracts are awarded through a competitive auction; however, there is currently only one buyer: the government. Without the Australia value, compliance market payments in 2016 were \$41.9M.

Projects vs. Programs

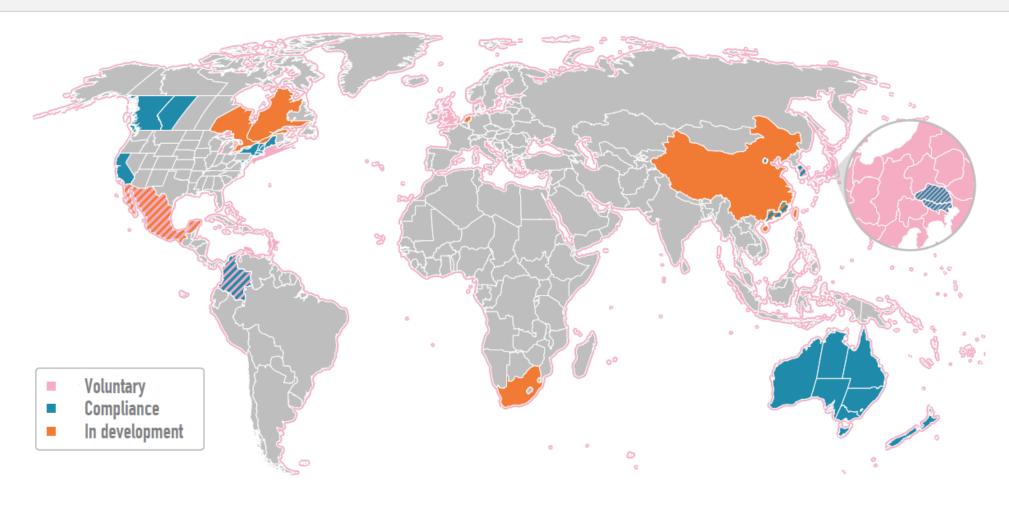




Forest Carbon Markets (Voluntary + Compliance)

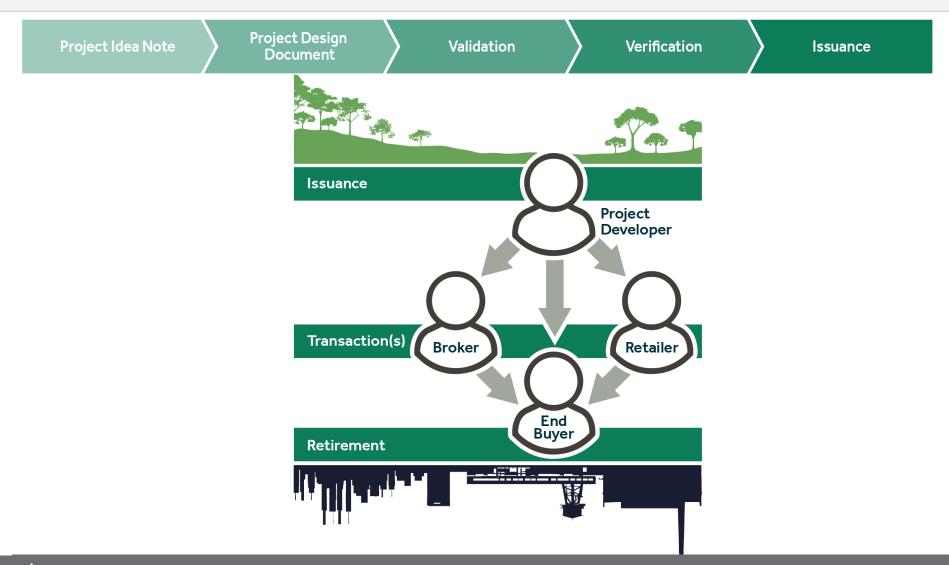


Where are forest carbon markets?



Source: Forest Trends' Ecosystem Marketplace. State of Forest Carbon Finance 2017.

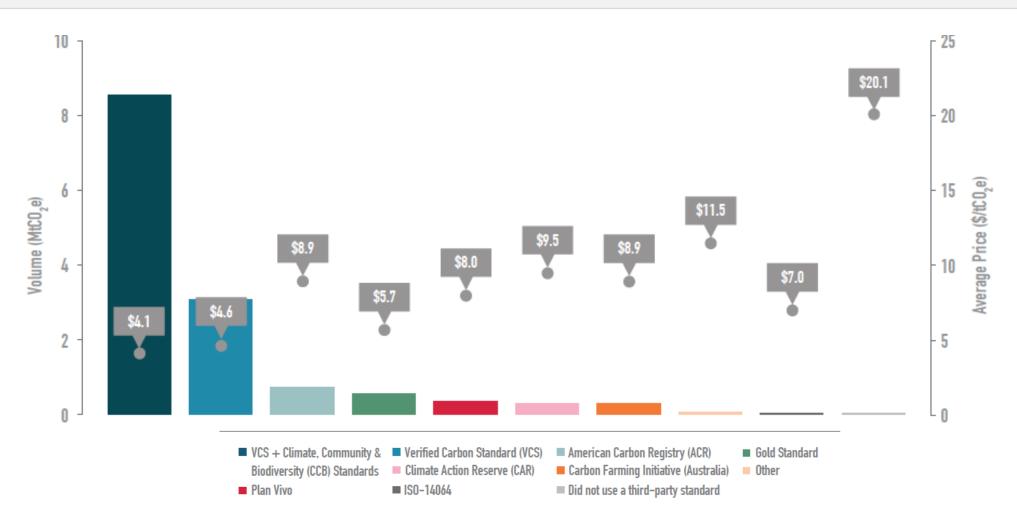
How is a voluntary carbon offset produced?



A brief overview of common project types

	# of Active Projects	Offsets Issued (2005- present)	Offsets Retired (2005- present)
Afforestation/reforestation	22	2.4 Mt	1.7 Mt
Avoided conversion	38	65.8 Mt	33.0 Mt
Improved forest management	30	8.3 Mt	3.0 Mt
REDD – Avoided planned deforestation	1	0.6 Mt	0.4 Mt
REDD – Avoided unplanned deforestation	16	6.3 Mt	3.7 Mt
Wetland restoration/management	2	0.3 Mt	0.2 Mt
Other	9	3.2 Mt	3.0 Mt

Generally, forestry projects sell between \$4-\$10/tCO2e.



Source: Forest Trends' Ecosystem Marketplace. State of Forest Carbon Finance 2017.



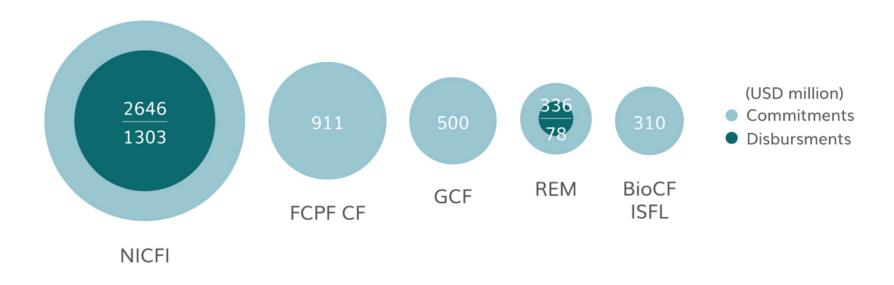


Non-Markets



Main REDD+ program funds

Figure 1. Result-based REDD+ commitments and disbursements by program since 2010



Source: Climate Focus analysis based on data since 2010 shared by NICFI and REM, and BioCarbon Fund. ISFL and FCPF Carbon Fund commitments retrieved from funds' official websites.

Note: NICFI = Norwegian International Climate and Forest Initiative; FCPF CF = the World Bank's Forest Carbon Partnership Facility Carbon Fund; GCF = the Green Climate Fund; REM = the German REDD Early Movers program; BioCF ISFL = the BioCarbon Fund Initiative for Sustainable Forest Landscapes. Data reflects commitments and disbursements through August 2018. For bilateral donors, commitments and disbursement are based on personal communications with donors. Commitments to the FCPF Carbon Fund and BioCarbon Fund's ISFL were retrieved from publicly available documentation.

Locations of REDD+ programs

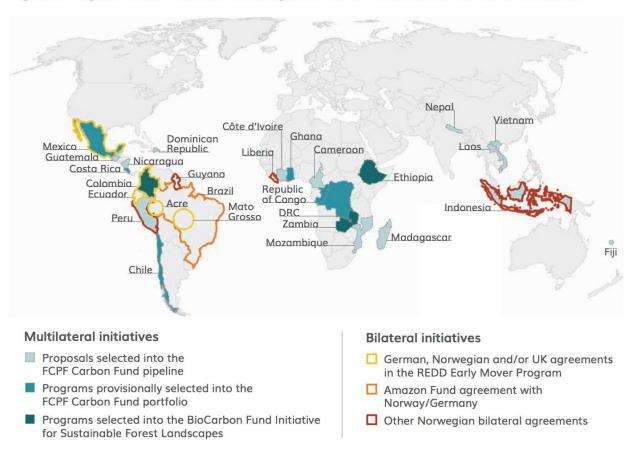


Figure 8: Progress in results-based finance agreements for multilateral and bilateral initiatives

Sources: Climate Focus. (2015). Results-based Finance for REDD+: Emerging Approaches. Frankfurt, Germany: KfW.

Notes: Updated from source publication based on communications with donors.

Note: This figure is taken from the Climate Focus report Finance for Forests: Progress on the New York Declaration on Forests report.





Upcoming Trends



Upcoming trends

	Voluntary Markets	Compliance Markets	REDD+ Programs
REDD+ program progress	X	X	X
Paris Agreement decisions	X	X	X
CORSIA	X	X	X
Compliance markets – expansions & new	X	X	X
Insetting / supply chain investments	X		X
Non-carbon quantification	X		

New progress in REDD+ programs

https://www.forestcarbonpartnership.org/sites/fcp/files/2019/Mar/FCPF%20Dashboard%20as%20of%20Feb %2028%202019.pdf

https://www.greenclimate.fund/how-we-work/redd

Paris Agreement

The Problem:

Who counts what?

http://gec.jp/jcm/about/
https://www.icroa.org/Voluntary-Market-Portal

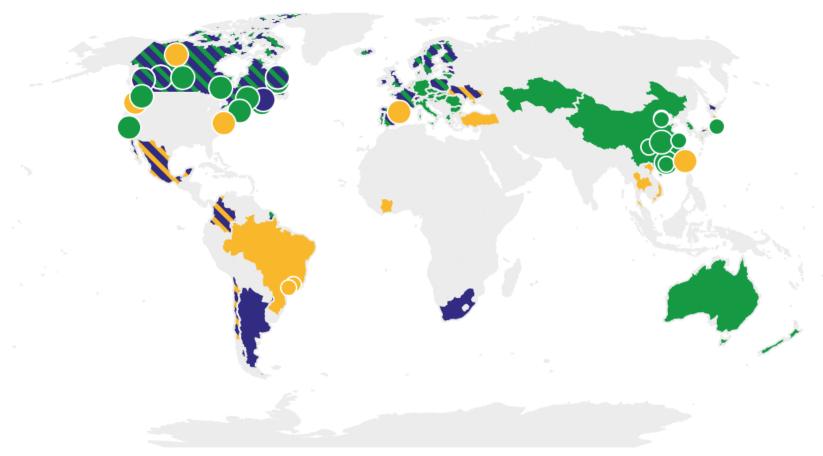
CORSIA

- CORSIA could become the world's largest carbon market: it could potentially create demand for 1.6-3.7 billion tonnes of emissions reductions during its initial three phases of implementation.
- Which offsets are eligible will depend on decisions that have yet to be announced – including:
 - Standards
 - Project types
 - Vintage

https://www.icao.int/Newsroom/Pages/CORSIA-implementation-on-course.aspx



Compliance markets – upcoming and expanding markets



https://carbonpricingdashboard.worldbank.org/map_data

Insetting / Supply Chain Investments



https://www.icroa.org/Insetting



https://www.sustain-cert.com/user-centric-impact-assessment/#enviromental

CLIMATE FORWARD

https://climateforward.apx.com/myModule/rpt/myrpt.asp?r=1

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Non-Carbon Benefits



https://verra.org/sdvistapilotprojects/



https://globalgoals.goldstandard.org/



THANK YOU! khamrick@ecosystemmarketplace.com

