X-Hazil

Activity types	Improved Forest Management
Impact type	Removal
Oxford category	Type 4 — Nature-based Removals
Developer	THEEARTHLAB SA de CV
Methodology	CAR Mexico Forest Protocol V3.0
Crediting period	2021 - 2121
Purchased from	CNaught Inc.
Registry	Climate Action Reserve (CAR 1863)
Verifying body	ANCE





Location

Yucatan Peninsula, Mexico

About this project

This project focuses on Improved Forest Management through strategic interventions in forest ecosystems. It aims to enhance sustainability by implementing regeneration practices that improve tree mass structure and maintain forest coverage. The project emphasizes maintaining the functional integrity of ecosystems while implementing silvicultural treatments and Forest Stewardship Council (FSC) monitoring protocols to ensure proper forest management.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

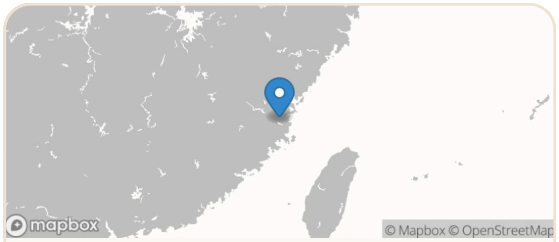
Credits by vintage

2021	214,665 tonnes
2022	275,967 tonnes
2023	210,561 tonnes
2024	204,479 tonnes
2025	42,006 tonnes

Fuzhou Hongmiaoling Landfill Gas to Electricity

Activity types	Landfill Gas Capture
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Fujian Tianyi Renewable Energy Technology & Utilization Co., Ltd.
Methodology	ACM0001
Crediting period	2007 - 2017
Purchased from	CNaught Inc.
Registry	Verra (VCS 253)
Verifying body	Germanischer Lloyd Certification





Location

Fujian Province, China

About this project

This project supports collection of landfill gas and generation of 2.5MW of electricity at a landfill in Fuzhou City in Fujian Province in southeastern China. The landfill received waste from 1995 until 2008, and—like most landfills—throws off methane as some of that waste decomposes. Credits are generated from two pieces of the project: (1) avoiding the emissions of methane (a potent greenhouse gas) into the atmosphere and (2) using the power generated from the methane (natural gas) to displace dirtier coal-fired power coming from the electric grid. The project clearly required carbon revenues to achieve these two goals and therefore generates high-quality carbon offsets.

Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

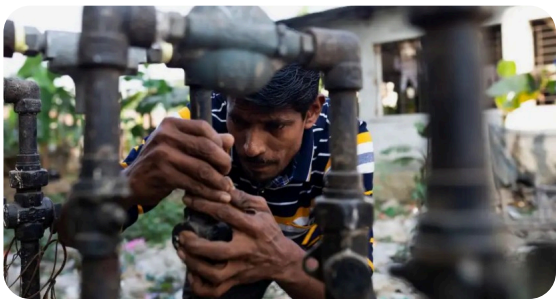
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Credits by vintage

2007	11,631 tonnes
2008	137,220 tonnes
2011	68,526 tonnes
2012	64,566 tonnes
2014	46,986 tonnes
2015	131,751 tonnes
2016	249,357 tonnes
2017	187,879 tonnes

Titas Gas Leak Repair

Activity types	Fugitive Emissions Reduction
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Titas Gas Transmission & Distribution Co.
Methodology	AM0023
Crediting period	2017 - 2027
Purchased from	CNaught Inc.
Registry	Verra (VCS 2478)
Verifying body	TUV SUD





Location
Greater Dhaka, Bangladesh

About this project

Located in Greater Dhaka, Bangladesh, this project reduces natural gas leaks from a gas distribution network in Bangladesh through the use of an advanced leak detection and repair program. Natural gas is a potent greenhouse gas and the technology is available to detect and repair pipeline leakage. But, without carbon credit revenue, deploying that technology would not be economical (or otherwise required) in Bangladesh. Beyond being highly additional and conservative with its emission reduction calculations, this project also supports the safety and well-being of local communities by improving their access to a cleaner source of energy. This project is the same as VCS2930, this project represents CDM credits converted to VCS credits, whereas VCS2930 represents new credits issued by the project after transitioning from the CDM to Verra.

Credits by vintage

2017	**6,761,610 tonnes**
2018	**9,585,212 tonnes**
2019	**11,467,765 tonnes**

Risk of reversal

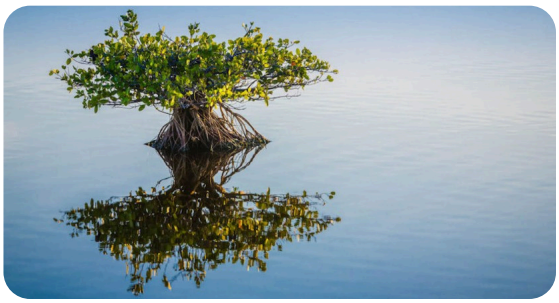
This project has little to no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Delta Blue Carbon

Activity types	Reforestation, Wetland Restoration and Conservation
Impact type	Removal
Oxford category	Type 4 — Nature-based Removals
Developer	Government of Sindh, Forest Department & Indus Delta Capital Ltd.
Methodology	VM0033
Crediting period	2015 - 2075
Purchased from	CNaught Inc.
Registry	Verra (VCS 2250)
Verifying body	ICONTEC





Location
Sindh, Pakistan

About this project

The Delta Blue Carbon project seeks to to restore degraded lands through large-scale mangrove reforestation on the Indus Delta in Pakistan. While the area was previously covered in mangroves, which sequester 3-5 times more CO2 per hectare than upland tropical forests, they largely disappeared by the 1980s. The project will ultimately plant mangroves on nearly 225,000 hectares of land and estimates that it will remove over 2.4 million tonnes of CO2e per year. This makes it the largest mangrove restoration program in the world. Despite inherent challenges involved in mangrove restoration projects, Delta Blue is also highly regarded, with Renoster stating that its "governance, design, and execution is well orchestrated and scientifically rigorous."

Credits by vintage

2015	**26,529 tonnes**
2016	**51,495 tonnes**
2017	**342,781 tonnes**
2018	**594,321 tonnes**
2019	**1,045,147 tonnes**
2020	**2,934,893 tonnes**
2021	**5,745,334 tonnes**
2022	**5,797,912 tonnes**
2023	**1,015,399 tonnes**

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the

buffer pool compensate for the shortfall, preserving environmental integrity.

Heartland Methane Abatement

Activity types	Orphaned Well Plugging
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Rebellion Energy Solutions
Methodology	The Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions From Plugging Orphaned Oil And Gas Wells Version 1.0
Crediting period	2023 - 2043
Purchased from	CNaught Inc.
Registry	ACR (ACR 890)
Verifying body	GHD Limited





Location
Washington County, Oklahoma

About this project

This project plugs six orphaned oil wells in Washington County, Oklahoma. The wells, which are located on private property, were leaking methane, posing health risks due to their location in proximity to homes, and threatening natural resources. The wells were identified by the state of Oklahoma as having no solvent owner, and without the project there would not have been any financing or regulatory mechanism to plug the wells. The plugging and abandonment activity itself was overseen and approved by Oklahoma. The project provides methane abatement, land restoration, and air quality benefits for those living nearby.

Risk of reversal

There is low risk of reversal should the material used to plug the well malfunction.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2023		**161,564 tonnes**

Tradewater Honduras

Activity types	Ozone Depleting Substance Destruction
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Tradewater
Methodology	Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removal from the Destruction of Ozone Depleting Substances from International Sources Version 1.0
Crediting period	2021 - 2021
Purchased from	CNaught Inc.
Registry	ACR (ACR 799)
Verifying body	TUV SUD





Location
Honduras

About this project

The Tradewater International Honduras 1.0 project destroyed CFC-12, a refrigerant and ozone-depleting substance (ODS) privately stored in Honduras. While legally imported to Honduras in 2004, the refrigerant, which is also a potent greenhouse gas, was never sold and remained in storage. Had it not been destroyed, it would have leaked into the atmosphere over time. The ODS was transported from Honduras to a destruction facility in Saint-Vulbas, France, where the canisters of gas were destroyed.

Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2022		**123,722 tonnes**

CarbonCure 1

Activity types	CO_2 in Concrete
Impact type	Mix of Removals and Avoidance / Reduction
Oxford category	Type 1 — Technology-based Reductions
Developer	CarbonCure
Methodology	VM0043 - Methodology for CO2 Utilization in Concrete Production, Version 1
Crediting period	2018 - 2025
Purchased from	CNaught Inc., Cloverly
Registry	Verra (VCS 3207)
Verifying body	VCS Validation/Verification Body





Location

Georgia, U.S.

About this project

This project captures waste CO2 that would otherwise be emitted to the atmosphere and utilizes it as a feedstock in ready-mix concrete production, permanently mineralizing approximately 60% of the injected CO2 into the concrete structure. The CarbonCure technology enables concrete producers to reduce their Portland cement usage while maintaining equivalent compressive strength, further reducing emissions since cement production accounts for about 8% of global CO2 emissions. The project operates at 43 initial concrete manufacturing facilities across Georgia, North Carolina, and South Carolina, with plans to expand to additional U.S. locations as a grouped project.

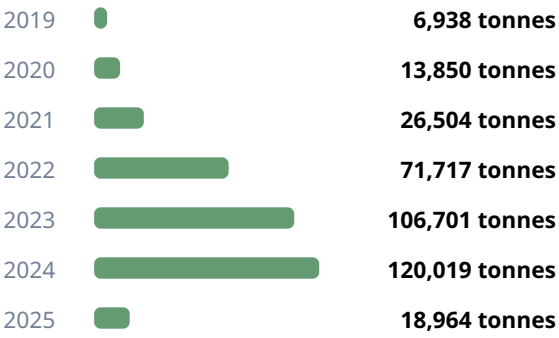
Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage



CarbonCure 2

Activity types	CO_2 in Concrete
Impact type	Mix of Removals and Avoidance / Reduction
Oxford category	Type 1 — Technology-based Reductions
Developer	Carbon Cure
Methodology	VM0043 Methodology for CO2 Utilization in Concrete Production
Crediting period	2018 - 2025
Purchased from	CNaught Inc.
Registry	Verra (VCS 4018)
Verifying body	VCS Validation/Verification Body





Location

U.S. and Canada

About this project

This project takes waste CO2 that would otherwise be emitted into the atmosphere, and utilizes that gas as a feedstock in the production of concrete, thereby sequestering that CO2. The concrete manufacturing process also requires less Portland cement as an ingredient, which further reduces emissions, because the cement production process is highly energy and carbon intensive. The CO2 injection and resulting reduction in Portland cement takes place at 138 different facilities across North America where the concrete is mixed and manufactured.

Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2019	**608 tonnes**
2020	**464 tonnes**
2021	**34,011 tonnes**
2022	**95,657 tonnes**
2023	**132,966 tonnes**
2024	**100,410 tonnes**
2025	**14,873 tonnes**

Mast Biomass Burial

Activity types	Biomass Storage
Impact type	Removal
Oxford category	Type 5 — Technology-based Removals
Developer	Mast Reforestation
Methodology	Terrestrial Storage of Biomass Methodology
Crediting period	2025 - 2025
Purchased from	CNaught Inc.
Registry	Puro.earth (PUR 272514)
Verifying body	350Solutions, Inc.





Location

Montana, United States

About this project

The Mast Biomass Burial project stores 3,460 dry tonnes of fire-damaged biomass from post-wildfire forests in Montana in engineered underground chambers designed to prevent decomposition and ensure carbon permanence for 100+ years. The biomass comes from dead trees that landowners had already cut and piled following the 2021 Poverty Flats Fire. In the project's absence, this biomass would have been pile-burned, releasing stored carbon to the atmosphere. The project site is in Big Horn County, Montana, and is protected by a 100-year legal easement. This restorative carbon removal project combines biomass burial with 125 acres of non-credited native ponderosa pine reforestation as a co-benefit, restoring ecosystem function to fire-damaged landscapes while physically removing carbon from atmospheric cycles through secure underground storage.

Credits by vintage

2025		**8,554 tonnes**

Risk of reversal

These projects face low risk of reversal because they are designed to store captured carbon for hundreds or even thousands of years. The primary risk of reversal comes from failure of the storage mechanism over the promised timeframe.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental

integrity.

Charm Industrial Bio Oil

Activity types	Bio-Oil Sequestration, Long-Lived Removals
Impact type	Removal
Oxford category	Type 5 — Technology-based Removals
Developer	Charm Industrial
Methodology	Charm
Crediting period	2020 - 2025
Purchased from	CNaught Inc.
Registry	Isometric (ISO 7BDE)
Verifying body	350 Solutions





Location

San Francisco, California, United States

About this project

Living plants, whether trees or agricultural crops, capture carbon dioxide from the atmosphere. However, after the plants die or the crops are harvested, the plants decompose and re-release that carbon. Charm collects plant waste, applies a heating process called pyrolysis that converts the plant waste into bio-oil, and injects that bio oil into deep wells or caverns where it hardens and will be stored permanently. Charm thereby makes the plants' temporary removal of carbon dioxide permanent. While its technology is promising, Charm currently charges $600 per metric tonne of CO2e sequestered and is delivering only a small amount of carbon removal per year. CNaught supports companies like Charm to help send a market signal that will help innovative technologies like that developed by Charm can reach scale.

Risk of reversal

These projects face low risk of reversal because they are designed to store captured carbon for hundreds or even thousands of years. The primary risk of reversal comes from failure of the storage mechanism over the promised timeframe.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2024	**347 tonnes**
2025	**1,815 tonnes**
2026	**8,419 tonnes**

Tradewater Thailand 6

Activity types	Ozone Depleting Substance Destruction
Impact type	Avoided Emissions
Oxford category	Type 1 — Technology-based Reductions
Developer	Tradewater
Methodology	Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removal from the Destruction of Ozone Depleting Substances from International Sources Version 1.0
Crediting period	2023 - 2033
Purchased from	CNaught Inc.
Registry	ACR (ACR 937)
Verifying body	TUV SUD





Location
Samutprakarn, Thailand

About this project

The Tradewater International Thailand 6 project destroyed CFC-12, a refrigerant and ozone-depleting substance (ODS) that had been illegally smuggled into Thailand and seized by government customs officials. Due to limited resources, the Thai government had no end-of-life solution for the potent greenhouse gas it was storing. Had it not been destroyed, the refrigerant, which has a global warming potential that is more than 10,000 times that of carbon dioxide, would have leaked into the atmosphere over time.

Risk of reversal

This project has no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Credits by vintage

2023		**315,382 tonnes**

Advanced Refrigeration - ARS2019001

Activity types	Fugitive Emissions Reduction
Impact type	Avoided Emissions
Developer	Therm Solutions
Methodology	ACR - Advanced Refrigeration Systems (Version 2.1)
Crediting period	2019 - 2029
Purchased from	Cloverly
Registry	ACR (ACR 737)
Verifying body	First Environment

Location
United States

Credits by vintage

2019 — **88,916 tonnes**

About this project

Greenfield construction of CO2 Large Commercial Refrigeration systems at two locations.

Risk of reversal

This project has little to no risk of reversal because its avoided emissions are not subject to being undone.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Bukaleba Forest Project

Activity types	Avoided Conversion
Impact type	Removal
Developer	Busoga Forestry (Subsidiary Green Resources)
Methodology	AR-ACM0001 Afforestation and reforestation of degraded land
Crediting period	2004 - 2046
Purchased from	Cloverly
Registry	Verra (VCS 799)
Verifying body	DNV

Location
Uganda

Credits by vintage

2004		**76,050 tonnes**
2011		**679,340 tonnes**
2016		**392,908 tonnes**

About this project

The ARR project activity of the Bukaleba Forest Project (BFP) is implemented on land within the Bukaleba Central Forest Reserve (BCFR) in the administrative district of Mayuge, Eastern Uganda. The project activity will establish and manage exotic and indigenous reforestation on approximately 2,061 ha of degraded shrub and grassland.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Buena Vista Heights Conservation Area

Activity types	Improved Forest Management
Impact type	Avoided Emissions
Developer	Allegheny Land Trust
Methodology	Preservation
Crediting period	N/A
Purchased from	Cloverly
Registry	City Forest Credits (CFC 9)
Verifying body	Ecofor

Location
United States

Credits by vintage



About this project

Outside Pittsburgh, Allegheny Land Trust protected 124 acres of woodlands from rapid encroaching residential development in southeastern Allegheny County. The 40 year old maple, cherry and oak-hickory forest provides habitat for deer, turkey, and many species of birds. Hikers, birders, and mountain bikers will be able to explore the area, and possibly catch a glimpse of a majestic 200 year old oak tree.Protection of this forest also contributes to maintaining clean drinking water for Pittsburgh region's residents. Located within the lower Youghiogheny River Watershed, the property is five miles upstream from the confluence with the Monongahela River.Revenue generated from the sale of carbon credits will be put towards acquisition costs, land stewardship, and future expansion of this and other conservation lands.

Risk of reversal

Nature-based projects like this one face some risk of reversal. Carbon storage may be affected by natural hazards such as wildfires, flooding, and escalating climate change impacts. Additionally, human-driven factors such as changes in land use or local governance structures can also impact carbon storage.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the buffer pool compensate for the shortfall, preserving environmental integrity.

Carboneers SRC India

Activity types	Biochar
Impact type	Removal
Developer	Carboneers
Methodology	Global Artisan C-Sink
Crediting period	2022 - 2026
Purchased from	Cloverly
Registry	Global C-Sink Registry (GCSP1024)

Location
India

Credits by vintage

2023		**3,485 tonnes**
2024		**109,665 tonnes**
2025		**200,982 tonnes**
2026		**67,056 tonnes**

About this project

Carboneers SRC India collaborates with smallholder farmers in the Assam and Odisha states of India to produce biochar from agricultural waste using soil pit flame curtain pyrolysis, which is then mixed with compost or manure and applied to neighbouring fields. The project, certified under the Global Artisan C-Sink Standard, has the capacity to sequester 50,000 tons of CO2 annually, with each ton sequestered generating one carbon credit. The project will increase carbon sequestration by working the produced biochar into different matrixes and in this way create a long-term carbon storage with a persistence of over 1000 years as according to the Global Artisan C-Sink Standard. Without the project, no C-sink would be created since rice straw, cotton stalks, mustard stalks, corn cobs, and corn stalks do not constitute a long-term carbon reservoir and biochar production is no common practice in the area. In the initial 5 years of the project we expect long term, durable carbon sequestration of approximately 250,000 tons of CO2eq in total or 50,000 tons CO2eq / year on average.

Risk of reversal

Biochar faces low risk of reversal when applied in soil due to fire, flooding, or extreme drought. However, due to its highly stable carbon structure, high-quality biochar is considered to have a very low risk of reversal when used for carbon sequestration, with the potential to store carbon for centuries.

Accountability measures

A registry-managed buffer pool exists to safeguard against project reversals. If a carbon storage project is reversed, credits from the

buffer pool compensate for the shortfall, preserving environmental integrity.