

Carbon Offset Investment Platform (COIP)

Solving climate change and fighting deforestation: an unprecedented opportunity for wealth creation through forest finance

THE CHALLENGES

- 1 Rising temperatures and climate change can trigger stricter environmental regulation, jeopardizing profitability and reputation for businesses around the globe.
 - ◇ The Paris Agreement has set the direction of climate action; 195 countries agreed on achieving net-zero emissions by 2050 to stay well below 2°C. However, current NDCs⁽¹⁾ will deliver 3-4° C. National targets will have to be raised.
 - ◇ The G20 Task Force on Climate-related Financial Risks⁽²⁾ recently released ambitious recommendations on corporate climate-related financial risks disclosure.
- 2 Deforestation in the tropics is a critical social and environmental issue driving climate change, biodiversity losses and livelihood deterioration. Changes in land use cause ¼ of the world greenhouse gas emissions⁽³⁾.

THE OPPORTUNITY

Today, +1,200 companies measure, disclose and manage their emissions⁽⁴⁾. Countries and non-state actors understand bolder climate action is required to be Paris-compliant. Scientists point to 2020 as the necessary turning point in emissions⁽⁵⁾.

Against this backdrop, a growing number of companies are shifting from being *managers to stewards* of their footprint. 222 companies have committed to follow decarbonization pathways aligned with science-based targets⁽⁶⁾. While many will shift their energy source and improve energy efficiency, becoming net-zero needs offsetting. Demand for voluntary carbon offset is expected to grow 2-5x in 2025⁽⁷⁾, and ICAO agreement can potentially drive demand beyond \$2.5Bn⁽⁸⁾.

COIP believes that there is a solid and growing underlying corporate demand for tailored long term carbon offset programs

COIP is a mission-driven investment advisory platform created to monetize carbon offset value of forestry companies and direct private capital into the forestry sector in certain developing countries. COIP can help these forestry companies (COIP "Investees") crystalize the asset value of the carbon offset generated through their usual economic activities and expand their biological stock by issuing 6-8 year carbon offset contracts to corporates at a certain price per ton. With clarity on additional revenues, and using these contracts as collateral, Investees can raise capital from COIP Members to lease land to be reforested. Payments by corporates under the carbon offset program will directly amortize COIP Members' loans.

Investment Product and Use of Proceeds

Investees will use loans only to lease deforested new land to be reforested/afforested and establish forestry activities.

Target COIP Members

Impact investment funds, foundations, pension funds and/or high net worth individuals.

Services Offered by COIP

COIP will source, diligence, structure, and monitor carbon offsets programs that satisfy specific risk-adjusted return requirements. COIP will also provide market intelligence and share "best practices" among Investees.

Deal Flow

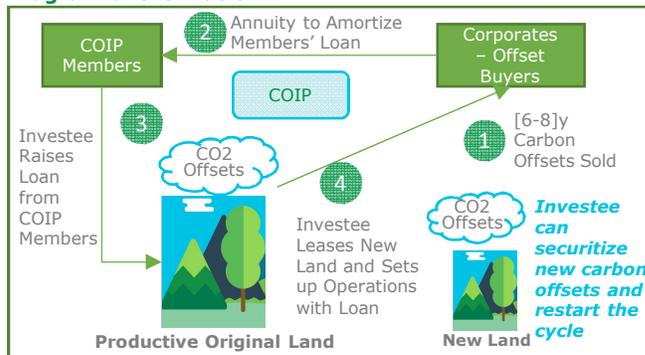
COIP will leverage long-standing relationships across development organizations, governments, and NGOs, as well as partner with verification bodies to source unique investment opportunities for its Members.

Fiduciary Control

COIP does not require that all Members invest in a given opportunity. Members retain full fiduciary control of their investments and each Member decides which investments to pursue. If multiple Members are interested in the same opportunity, COIP will coordinate with Members to facilitate an efficient diligence and investment-allocation process.



Diagram of the Platform



Carbon Capture Fund Characteristics

Cost Structure

COIP will act as an extension of Members' in-house investment staff to source, diligence, and structure transactions, as well as to provide asset-monitoring services. COIP is not motivated by fee generation and operates "at cost". Members will fund COIP costs on a pro-rata basis. Annual budget is estimated at c. 800k (1.6% on an initial fund of \$50m).

Target Geography

Developing countries where deforestation is an acute problem and that have stable political environments; initial target areas will be West, Central and East Africa, and the Amazon region.

Investment Highlights

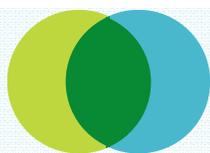
- ◇ Highly scalable opportunity
 - Robust and growing corporate demand for long term tailored carbon offsets programs.
 - Existing carbon offset capacity is used as gateway to unlock additional resources.
- ◇ Significant asset coverage with royalty-like revenue stream.
 - Members retain 1st ranking pledge over the revenues and over the leased property ("New Land").
- ◇ Attractive risk-return profile
- ◇ Currency alignment: Members' investment and carbon offset program are both USD-denominated. Foreign exchange risk is only born on the value of the collateral "New Land".

Platform Risks and Mitigants

- ◇ Weak land tenure systems and political instability could lead to loss of 1) biological assets producing carbon offsets and 2) collateral (New Land).
 - This largely depends on the idiosyncrasy of the country. COIP will select only countries with optimal conditions and conduct due diligence on these aspects.
- ◇ Counterparty risk
 - COIP expects to secure deals with A-and-above-rated companies. Data shows that companies voluntarily managing their footprint are largely investment grade⁽⁴⁾.
- ◇ Plagues and fire can threaten ability to offset carbon
 - Verification standards require 20% capacity buffer.
 - Partial insurance will be put in place.
- ◇ Limited investment opportunities
 - COIP connections will allow for rapid identification of opportunities.
 - Abundant carbon-offset assets ready to be monetized.

COIP Term Sheet

Fund Name	Carbon Offset Investment Platform I
Fund Manager	Carbon Offset Investment Platform
Structure	Registered Investment Advisor (RIA) and Public Benefit Corp.
Types of Assets	Carbon offsets for corporates
Investment Period	4 years
Term	12 years
Target Fund Size	USD 50m
Commitment Size	Minimum USD [4m] commitment
Investment Decision	Discretionary on each investment
Fees	At cost; pro-rata based on commitments
Target Return	[10-20%]



Appendix

This is a hypothetical example of an investment opportunity for the COIP, based on publicly available information of the NFC and on a number of assumptions made by the authors, which may or may not hold in reality. NFC was partially consulted.

Opportunity 1: New Forests Company (Tanzania, Rwanda, Uganda)



The New Forests Company

COIP Investee Profile

- ◆ New Forests Company ("NFC"), founded in 2004, is a sustainable, socially responsible forestry and timber products business in Uganda, Rwanda and Tanzania.
- ◆ Strong management team and institutional support.
 - Among founding shareholders are HSBC and Agri-vie, a mid-market food & agriculture investor in Sub-Saharan Africa.
 - Robert Devereux, former Chairman of Virgin Entertainment, and Jon Aisbitt, former Partner at Goldman Sachs, sit in the Board.
 - NFC has received significant debt financing from numerous Development Finance Institutions including Germany (DEG), Finland (FinnFund), the Netherlands (FMO), and South Africa (IDC).
 - To date, the company has planted 25m trees on over 30,000 hectares, which offset +200,000 tons of carbon annually.
- ◆ NFC manages its forestry data with the state of the art MicroForests system and regular plantation audits.
- ◆ Employing 1,700 (216 women), NFC has contributed \$7.2m to community development, increasing access to clean water, education, and healthcare for c.415,000 people.
- ◆ NFC values their biological assets at \$134m. 2016 sales stood at \$20m, and EBITDA at \$0.5m.
- ◆ NFC complies with the best forestry, social and environmental practices. Its vision is to be the most successful and sustainable, integrated Pan-African timber business.

Deforestation in East Africa

- ◆ Rapid deforestation is a major problem in East Africa, affecting desertification and climate change. Fuelwood use and population growth are important contributors⁽⁹⁾.
- ◆ In 2010 there were c.73m Ha of forest in East Africa. Annual forest loss was c. 0.7m Ha, 1% per year⁽¹⁰⁾.

Investment Opportunity

COIP believes that NFC's ability to offset carbon emissions are worth a minimum of \$720k/year and is seeking to raise an loan of \$3.25m. The term of the investment is 8y, with a target return of ~[12.8]%

Cash Flows and Expected Returns and Sources & Uses (\$m)

	2017	2018	2019	2020	2021	2022	2023	2024	2025
Tons Offset - Old Land	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000
Tons Offset - New Land	-	-	-	-	9,639	9,639	9,639	9,639	16,065
Total Income	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9
Lease	-	-	-	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Employees	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Maintenance	-	-	-	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Community Investment	-	-	-	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Transaction Costs	(3.0)	-	-	-	-	-	-	-	-
Overfund	(0.3)	-	-	-	-	-	-	-	-
Total Costs	(3.3)	(0.0)	(0.0)	(0.0)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
FCF	(3.3)	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
Loan Recovery (\$m)	0.0	0.7	1.5	2.2	3.0	3.8	4.7	5.5	6.4

CoC	3.0x
IRR	12.8%

+ Significant Social and Environmental Impact: CO2 tons offset, area reforested/afforested, new local jobs created, investment in the community.

	Old Land					New Land
	6	7	8	9	10	
0	4.9%	10.3%	15.2%	19.7%	24.0%	
7	7.1%	12.1%	16.7%	21.0%	25.2%	
8	7.4%	12.3%	16.9%	21.2%	25.4%	
9	7.7%	12.6%	17.1%	21.4%	25.5%	
10	8.0%	12.8%	17.3%	21.6%	25.7%	
11	8.2%	13.0%	17.5%	21.8%	25.8%	

Term Sheet - Opportunity 1: NFC

Commitment Size	USD 3.25 m
Term	8 years
Expected Return	[7.1-17.5%]
Security	1st Ranking Pledge over revenues of Carbon Offset Program and 1st ranking pledge on New Land leases
Counterparty Risk	[TBD, expected above A]
Use of Funds	Lease New Land for reforestation purposes, capex and transaction costs
Maturity	Amortizing, final maturity date 31 Dec 2025
Covenants	Non additional liens on collateral, no dividends arising from New Land economic activity, no additional liens on original land

Investment Highlights

- ◆ Attractive risk-adjusted return: +1,000 bps premium on A rated corporate bonds.

Benchmark of A-Rated Bonds - in bps (levels as of 24 Mar 2017)

	US Treasury	Corporate	Δ Corporate Premium	COIP Target Return	Δ COIP Premium
5Y	192	224	32	1,280	1,056
10Y	239	324	85	1,280	1,041

- ◆ Robust asset coverage: royalty-like revenues land value.
- ◆ Low counterparty risk: revenues are contracted from high rate corporates (A-rated and above).
- ◆ Established and profitable operating company with robust management and institutional support.
- ◆ Currency alignment: loan and carbon offsets in USD.

Investment Risks and Mitigants

- ◆ Loss of security on the asset due to political unrest.
 - Tanzania, Uganda, Rwanda have enjoyed 15, 31 and 22 years of political stability, respectively.
 - Rwanda ranks #2 in terms of business friendliness in South-Saharan Africa. Uganda and Tanzania rank #12, and #14, respectively, out of 48 countries⁽¹¹⁾.
- ◆ Loss of biological asset value through disaster or attack.
 - Good relationships with local communities reduce risk.
- ◆ Official carbon price set below \$10.
 - Investment is reassessed; price is fixed at inception.

Assumptions

- ◆ 50% of the total carbon offsets are securitized and kept untouched. Additional buffer for verification is also kept.
- ◆ \$7/t for carbon certificates⁽¹²⁾ on existing offset capacity; \$10/t on new capacity. Average agroforestry projects price is \$10⁽¹³⁾. Supportive price references: Gold Standard⁽¹⁴⁾ forestry offset price (~€13/t), Wildlife Works (\$10/t)⁽¹⁵⁾. COIP believes companies will pay a premium for a tailor-made emission offset program.
- ◆ Overfund intends to cover initial lossmaking period.

Sources

Members' Loan	3.25
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Total Sources 3.25

Uses

Capex in New Land	1.75
Diligence Specialists	0.20
Gold Standard Certification Cost Old Land	0.03
Gold Standard Verification Cost New Land	0.05
Environmental Impact Assessment	0.01
Insurance	0.15
Total Legal Fees and Taxes	0.70
Retailer Fees (2.5%)	0.08
Cash Available for Greenfield	0.28
Total Uses	3.25

Return Sensitivities based on Offset Price

New Land does not produce offsets

	6	7	8	9	10
0	4.9%	10.3%	15.2%	19.7%	24.0%
7	7.1%	12.1%	16.7%	21.0%	25.2%
8	7.4%	12.3%	16.9%	21.2%	25.4%
9	7.7%	12.6%	17.1%	21.4%	25.5%
10	8.0%	12.8%	17.3%	21.6%	25.7%
11	8.2%	13.0%	17.5%	21.8%	25.8%

- (1) NDCs stands for National Determined Contributions, which are the commitment in greenhouse gas emission reductions by each country under the Paris Agreement
- (2) Launched at COP21 in Paris, the Task Force was mandated by the G20 Financial Stability Board to produce recommendations on best practices for climate-risk financial disclosure
- (3) International Panel for Climate Change, 2014
- (4) Putting a price on risk: Carbon pricing in the corporate world, CDP, Sep 2016
- (5) Rockström, J., et. al. A roadmap for rapid decarbonization, Science Magazine, 2017
- (6) Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions.
- (7) Forest Trend's Ecosystem Marketplace project, Feb 2015
- (8) Opinion of industry specialist
- (9) Investigation of Deforestation in East Africa on Regional Scales, FAO, Stockholm University, 2011
- (10) Global Forest Resources Assessment, FAO, 2010
- (11) The World Bank
- (12) Certificates differ from 'offsets' in that there is no additionality of carbon sequestration.
- (13) The Gold Standard is the global benchmark for the highest integrity and greatest impact climate and development initiatives.
- (14) Raising Ambition: State of the Voluntary Carbon Markets 2016, Ecosystem Marketplace
- (15) Wildlife Works is the largest developer of REDD+ projects