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CARBO-LEASE

2022 Kellogg-Morgan Stanley Sustainable Investing Challenge

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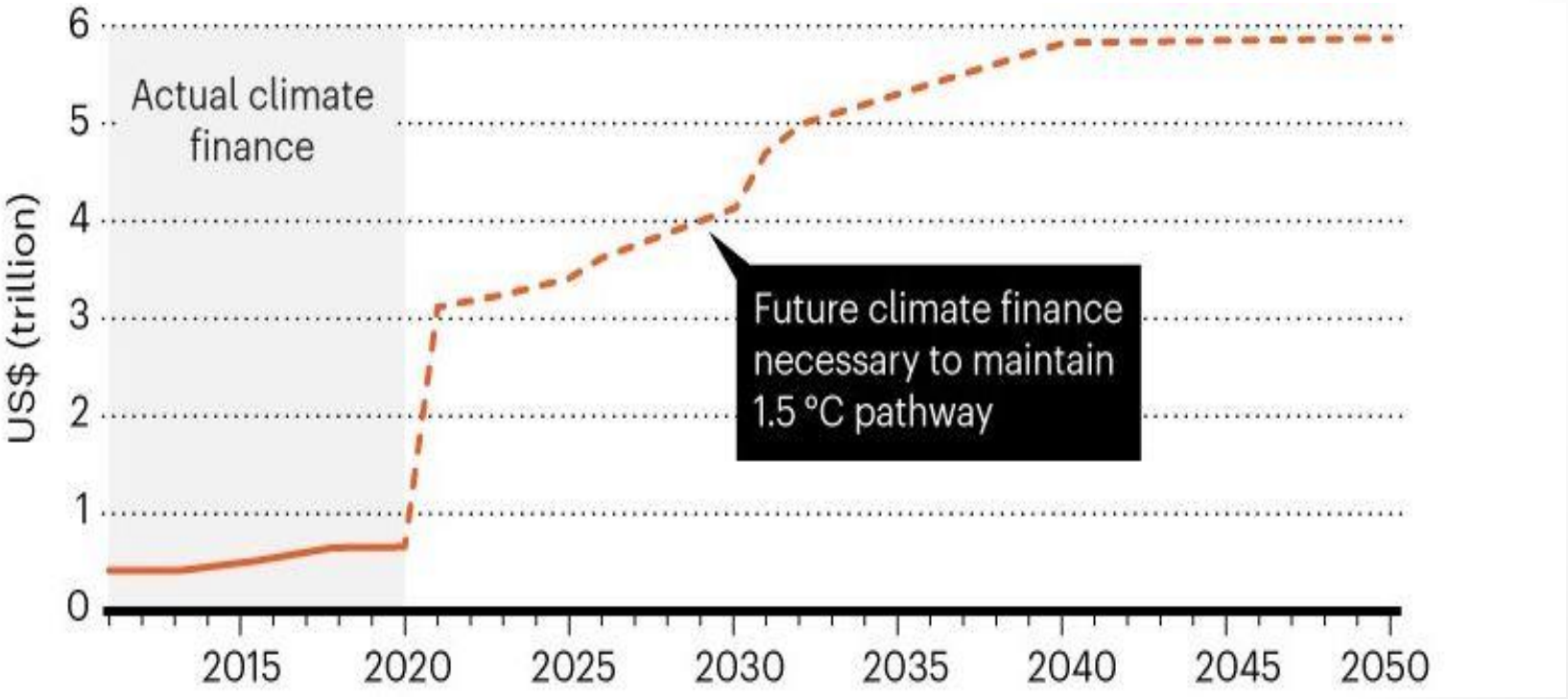
Preface

- With the cautious skepticism of venture capitalists, we cannot rely on startup and equity funding alone, debt instruments need to be more accessible and more innovative



Problem (s) tackled by our product

- Lots of ideas for green projects, not enough financing
- Debt payments constitute a cash flow stress for small startups and NGO-based green projects.
- Buyers remain distant from the credits they purchase from Voluntary Carbon Markets.
- Developing your own project raises the question of impartiality and disclosure conflict of interest.
- Green projects require lots of capital expenditure into tangible assets especially equipment, tools and machinery.
- Investment Funds need to have a fast “payback turnover” so that they could reinvest into other ventures.
- Green projects are often considered high risk investments due to unguaranteed profit streams.

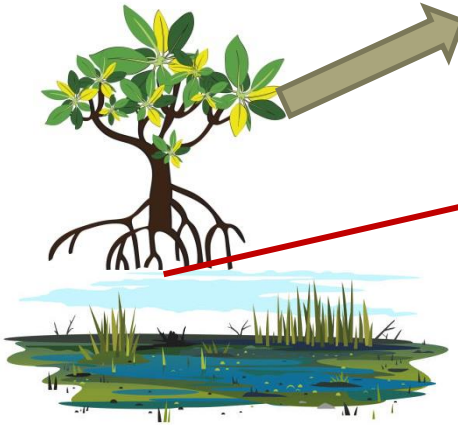
Hard to get seed investments

Hard to pay installments in cash

The market often relies on arms-length carbon credit purchases with minimal involvement

Solution

- Using leasing as a means to finance equipment, tools, machinery and other tangible assets
- Securitize the lease in a way that would allow it to be sold and traded on the market.
- Industrial buyers, the new “lessors” would be entitled to receive the lease installments.
- “Lessees” would pay the lease installments in the form of the carbon offsets generated.
- Carbon offsets would act as some sort of a an environmental service-based crypto currency and used to pay back on lease and financing installments



Mangrove planting project

Investment firm
Is approached

NGO / research center / uni to verify carbon offsets production and schedule

Investment firm issues the lease agreement

Special Purpose Vehicle (SPV) securitizes the lease agreement

Industrial buyers purchase the securitized lease and become the new “Lessors”

Accelerators are used to help select most promising projects

Carbon offsets are used as currency to pay for lease installments (like a carbon-based crypto currency)

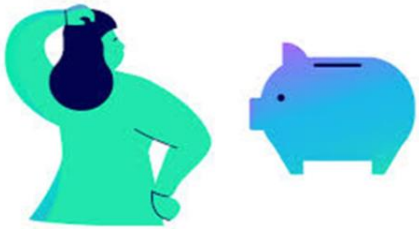
Industrial buyers may technologically help the projects via their sustainability departments

Some information

- **Fund size**: 5 million USD (with the target of mitigating at least 100,000 tons of CO2 per year, valued at 50 USD each) + an additional amount of 1 million USD dedicated to due diligence, project selection, carbon appraisal, lifecycle assessment and partnership grants with local NGOs.
- **Desired debt to equity ratio**: 3 debt : 1 equity
- (to ease the investment burden on the entrepreneurs / founders team / community project).
- **COP27 opportunities**: Egypt's emissions alone amount to 250 million tons of CO2, so if only 5% of those emissions was planned for offsetting under pressure of Egypt hosting COP27, then the instrument could expand to cover 12.5 million tons worth of credits (**125 million USD** at the bare minimum price appraisal of 10 USD per 1 ton of CO2 offset).

COP27
SHARM EL-SHEIKH
2022 EGYPT

Financial incentives



- For green projects: securing financing at more favorable terms than loans with flexibility of trying, changing and upgrading the equipment. No down payments would be needed (the equipment is the collateral).
- For Investment banks: quick turnover, assuming the mangrove project required a 200,000 USD lease with 7% as lease fee, discounted securitized sale price would sell the instrument at 5%, then the investment bank would have made **10,000 USD per lease instantly** (in addition to any expenses related to verification, attestation and brokerage fees for the purchases and leased assets).
- For buyers: 1) secured high quality carbon credits at competitive "locked-in" rates 2) tax deductibility under IRS sections 162 and 263, 3) possibility of converting the debt instrument into equity. Example on the achieved gains on the buyer:

Item	Value
Assumed asset value	200,000 USD
Discount at securitization	2% (7% rate sold at 5%)
Assumed residual value	10% (20,000)
Lease term	5 years
Interest rate	7%
Monthly pay	3680.88
Total interest	40,852.94 USD
Buyer's acquired carbon offsets at locked in rate of 10 USD per CO2 ton	4085.3 tons

Turnover for the Investment Fund

- Assuming all projects are supported with lease contracts worth **200,000 USD**, then a 5 million Fund can finance **25 projects at a time**.
- Assuming a maximum duration to sell the securitized lease is 3 months (a quarter) and with the Fund earning **5% at each sale**, 10,000 USD (discounted from the 7%), then each quarter the Fund would make **250,000 USD** (1 million USD per year, aside from brokerage fees between the lessee and the equipment/machinery/asset companies).
- This culminates into a profitability of **20%, yearly**.

The sooner you get to reinvest your money, the better !

Example of the collaboration between an investment bank and environmental organizations

- The Center for Applied Research on the Environment and Sustainability (CARES) at the American University in Cairo, had a grant agreement sponsored by HSBC for the mangrove rehabilitation project.
- Investment banks running the lease contracts could keep environmental research centers like CARES on a retainer and use them to select projects that would have the maximum verifiable carbon sequestration potential

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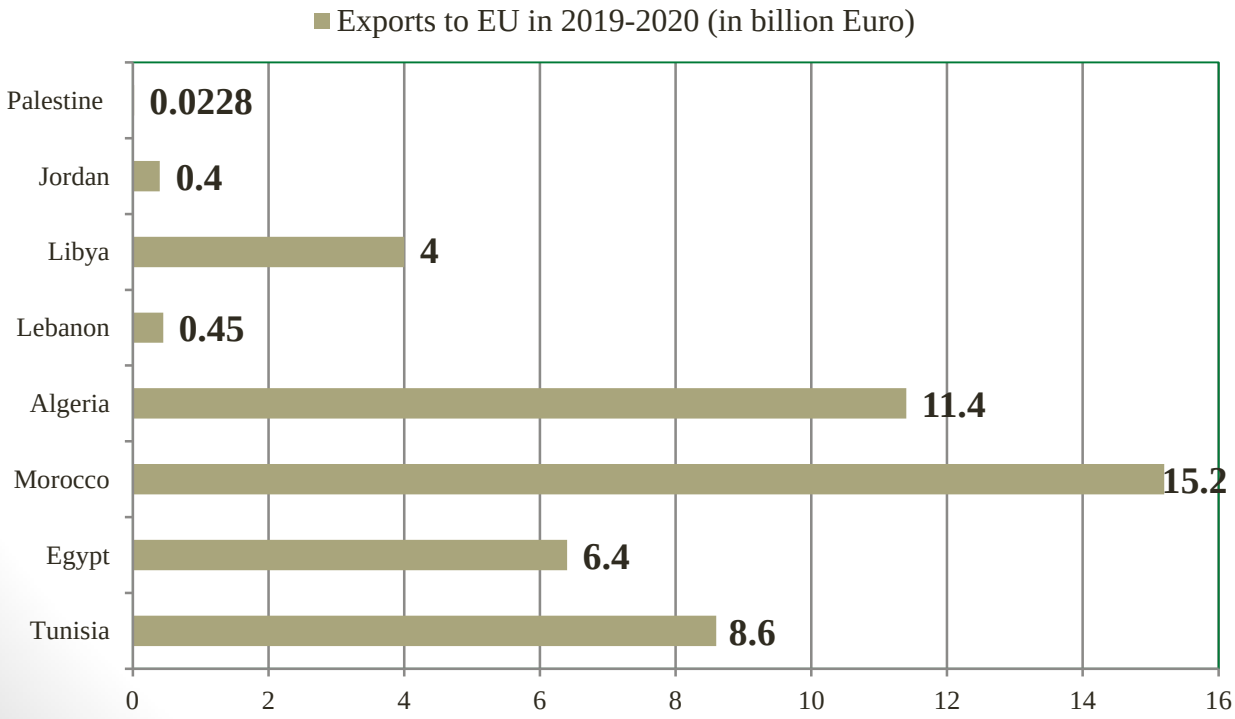
HSBC

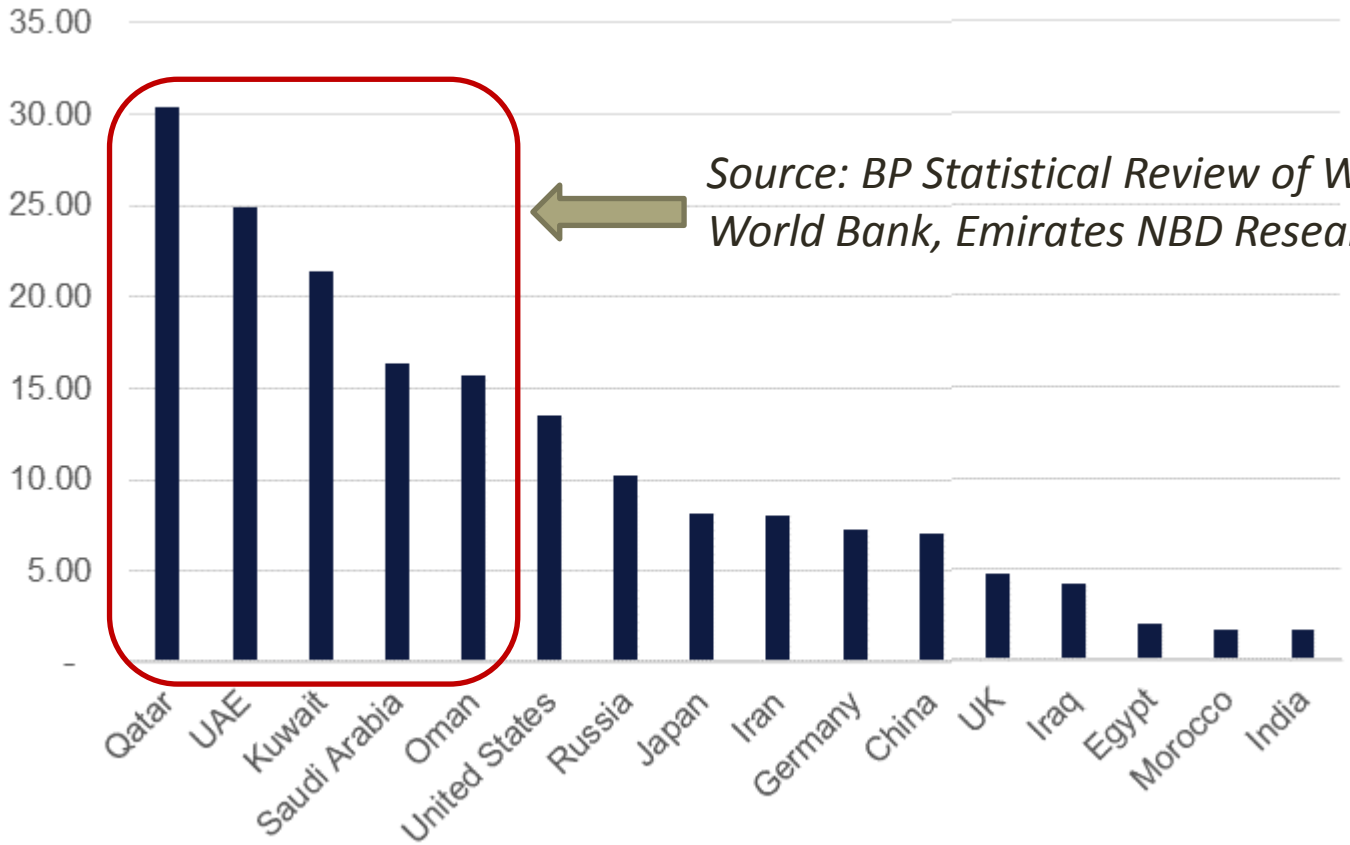
Target Market

- With the introduction of the Carbon Border Adjustment Mechanism (CBAM) that shall be effective starting 2023, exporters to Europe may have to pay tariffs / taxes if they come from jurisdictions that have no carbon taxation . According to the Boston Consulting Group, with as little levied carbon tax as 30 USD per ton, exporters profit would fall by 20%. Middle Eastern countries would be negatively hit by this as well as many other countries that lack national carbon schemes :



Target Market (Cont'd)

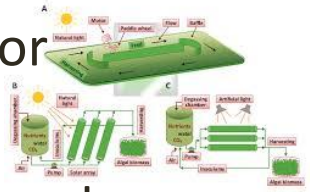
- Gulf Cooperation Council (GCC): with carbon markets still in early exploratory phase in countries like UAE and KSA with huge carbon footprint, GCC carbon players could be prime customers.



Source: BP Statistical Review of World Energy 2021, World Bank, Emirates NBD Research

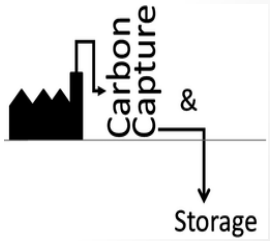
Project examples (You need equipment? We are in !)

- Mangrove plantation (combined with seaweed cultivation)
- Microalgae projects (like Algaenoor for Dunaleilla Salina)
- Carbon Capture Utilization and Storage (CCUS): with California Low Carbon Fuel Standard (LCFS), CCUS credits range from 50 USD per ton for permanent storage and 35 USD per ton for utilization (like with Enhanced Oil Recovery).



- Pyrolysis projects to produce biodiesel from agricultural waste
- Tree planting and vegetation on reclaimed land (as verified by satellite imagery).

The common theme is: any carbon fixing project that spends substantially on equipment.



Potential partners

- **Mirova** (via its Nature Accelerator Initiative, partnering with the IUCN and the Coalition for Private Investments in Conservation). The partnership would allow us to launch by **May 2022**.

mirova
Investing in sustainability

IUCN

CPIC
COALITION FOR PRIVATE INVESTMENT IN CONSERVATION

- AUC Venture Lab / Flat6Labs (startup incubators in Egypt and the Middle East): MENA startups raised around 2.695 billion USD in 2021 with Fintech amounting to 502.2 million USD.

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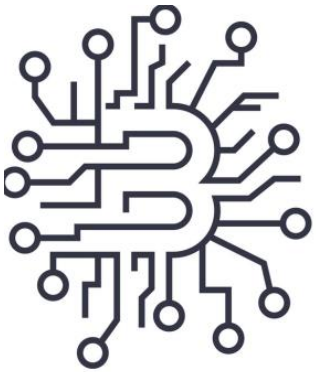
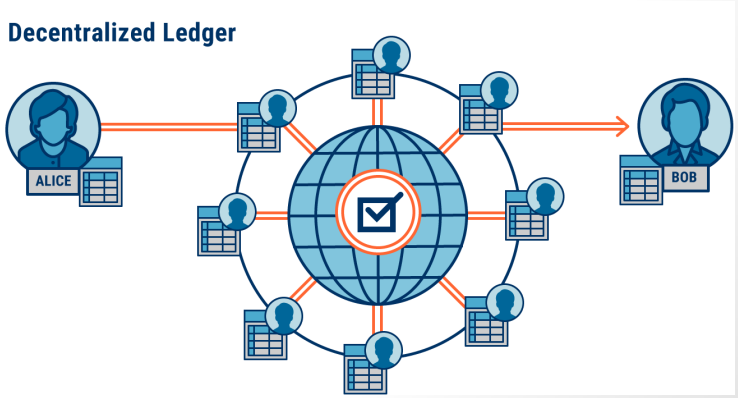
  AUC VENTURE LAB

F6 FLAT6LABS

Future plan (a bundle of crypto-joy)

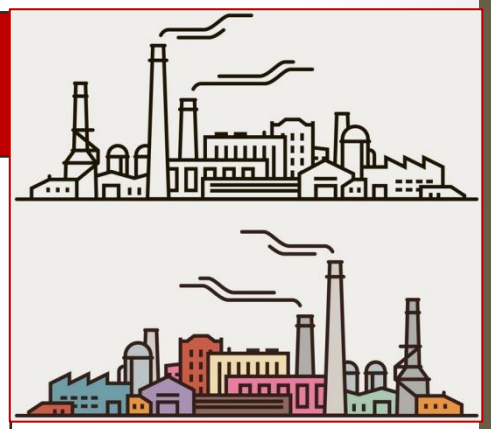
- To “bundle” the securitized carbon-fixing lease agreements into portfolios allowing “investment certificates/contracts” in a multitude of carbon fixing projects at once.
- Using blockchain technology, carbon credit equivalent would pass between the “lessee” to the new “Lessor” the same way monetary sums are transferred. This would allow buyer companies (lessors) that began to adopt carbon accounting to keep a unified traceable and transparent ledger of their carbon balance.
- Usage of the carbon credits as a way to settle debt and interest payments, combined with blockchain tech, could pave the way for a fullfledged carbon-crypto currency.
- The bundle system may make it easier for “lessor” companies to convert the debt instrument into equity





How would it work

Portfolio of CO2 fixing projects with lease contracts	Assigned blockchain codes for produced carbon credits	Bundling different lease assets within one security
Mangrove restoration	Block 1	
Carbon, Capture, Utilization & Storage	Block 2	
Desert reclamation &tree planting	Block 3	Combined_Block.Chain_transaction.Time-stamp [index]
Agricultural waste-based biofuels	Block 4	
Seaweed and algae (blue carbon)	Block 5	Assuming it amounts to 5000 metric tons
Etc…..	Block 6	



Blockchain codes (representing the carbon offsets) are sent to corporate buyers of the securitized lease portfolio

With the public ledger feature in blockchain, the public could attest to offsetting effort, if the company desires (otherwise, permissoned transactions are secured)

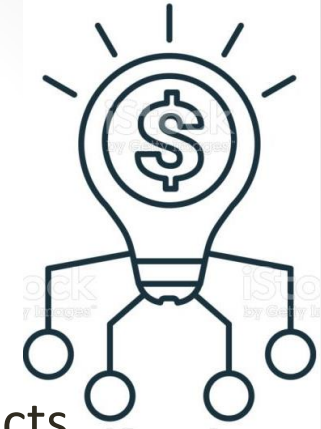
Debit	Credit
Blockchain offset code 5000 mt	Carbon footprint 6500 mt
	1500 mt

Why disclosure matters to our solution?

- The US Securities and Exchange Commission (SEC), has published a proposed rule on the 21st of March 2022 that standardizes the greenhouse gases (GHG) and other climate related disclosures for public companies.
- According to the rule, Scope 1&2 would trace GHG of purchased or used electricity, steam, heat and cooling among other parameters. Scope 3 covers indirect emissions.
- The disclosure would have to showcase intensity (number of tons against each dollar of revenue).

Gary Gensler,
SEC Chair

Summary of what we do



- Leasing to finance equipment & machinery of green projects
- Using carbon credits as a means to pay for lease installments
- Use securitization to have a quick turnover and pair green projects with industries
- Use blockchain technology for public disclosure of offsets

Thank you for your time and consideration; questions?