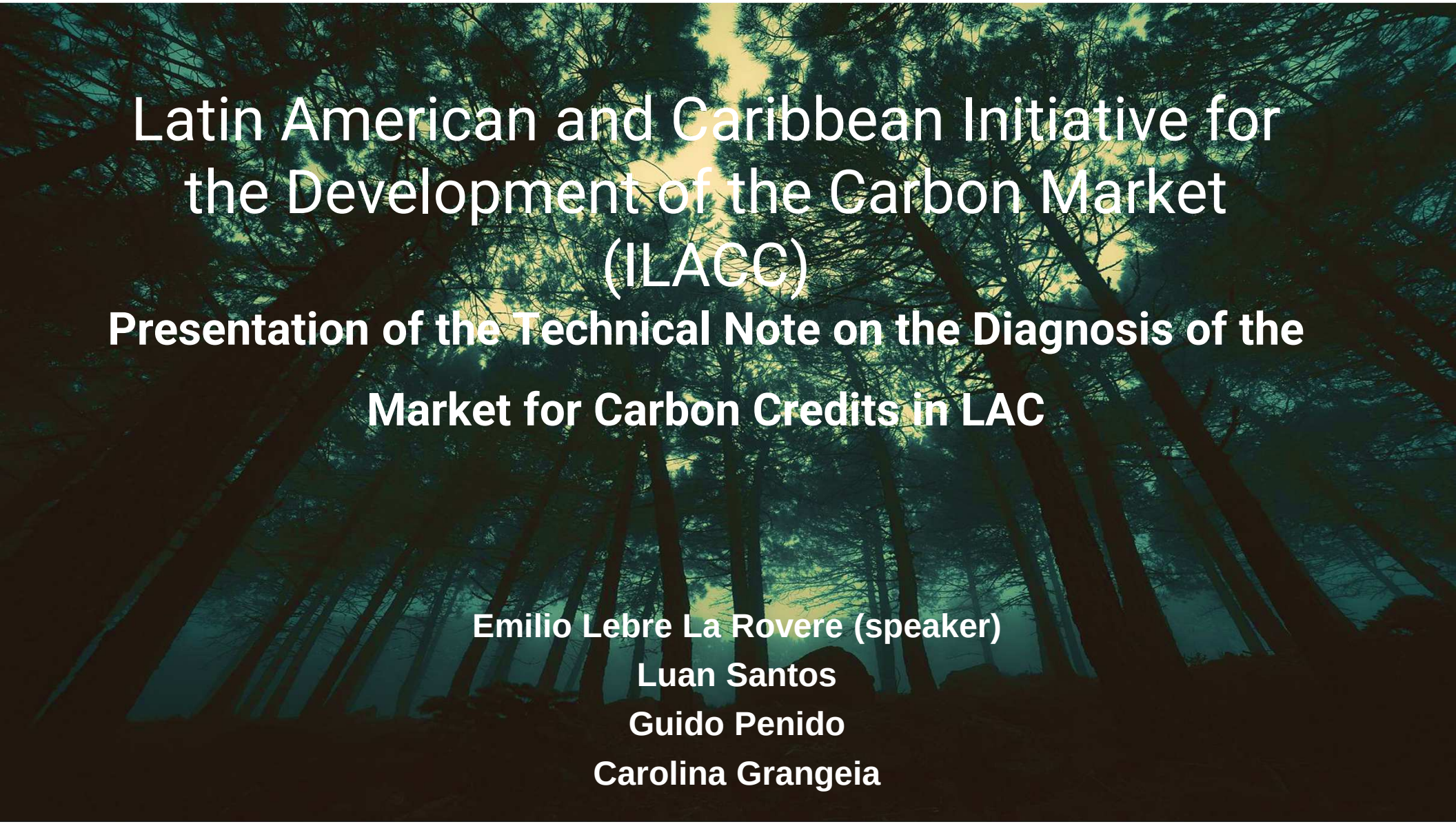

Latin American and Caribbean Initiative for the Development of the Carbon Market (ILACC)

Presentation of the Technical Note on the Diagnosis of the Market for Carbon Credits in LAC

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- Technical Note prepared from November, 2021 until May, 2022;
- Its methodology included the analysis of world carbon markets; and of ongoing national initiatives in sixlatinamerican countries: Argentina, Brasil, Chile, Colombia, Mexico and Peru; based on literature review and on interviews with market players;
- The Diagnosis of the region provided the technical basis for ILACC and allowed for defining the Work Program 2022-2026, based on the **Theory of Change**.

1. Conceptual Framework and General Context

Climate change is an increasingly central issue on the **global political and economic agenda**;

Governments and companies around the world are seeking solutions to reduce their greenhouse gas (GHG) emissions and mitigate this phenomenon;

A **carbon-neutral future** creates challenges and opportunities in the international environment.

The **Paris Agreement** represents the current framework for international climate negotiation and cooperation. Seeking to limit global warming to well below 2°C compared to pre-industrial levels, ideally 1.5°C, adhering countries set national GHG emissions reduction targets, the so-called Nationally Determined Contributions (NDCs). **Article 6 deals with voluntary cooperation** among parties to the agreement to achieve their targets, including market approaches.

- **Article 6.2**: provides about the commercialization of emissions mitigation outcomes between countries, based on Internationally Transferred Mitigation Outcomes (ITMOs);

- **Article 6.4**: under the decentralized project rationale, 6.4 creates a mechanism that establishes an international certification standard, with rules and methodologies for the generation of carbon credits from projects that generate GHG emissions reductions or removals in relation to a projected baseline.

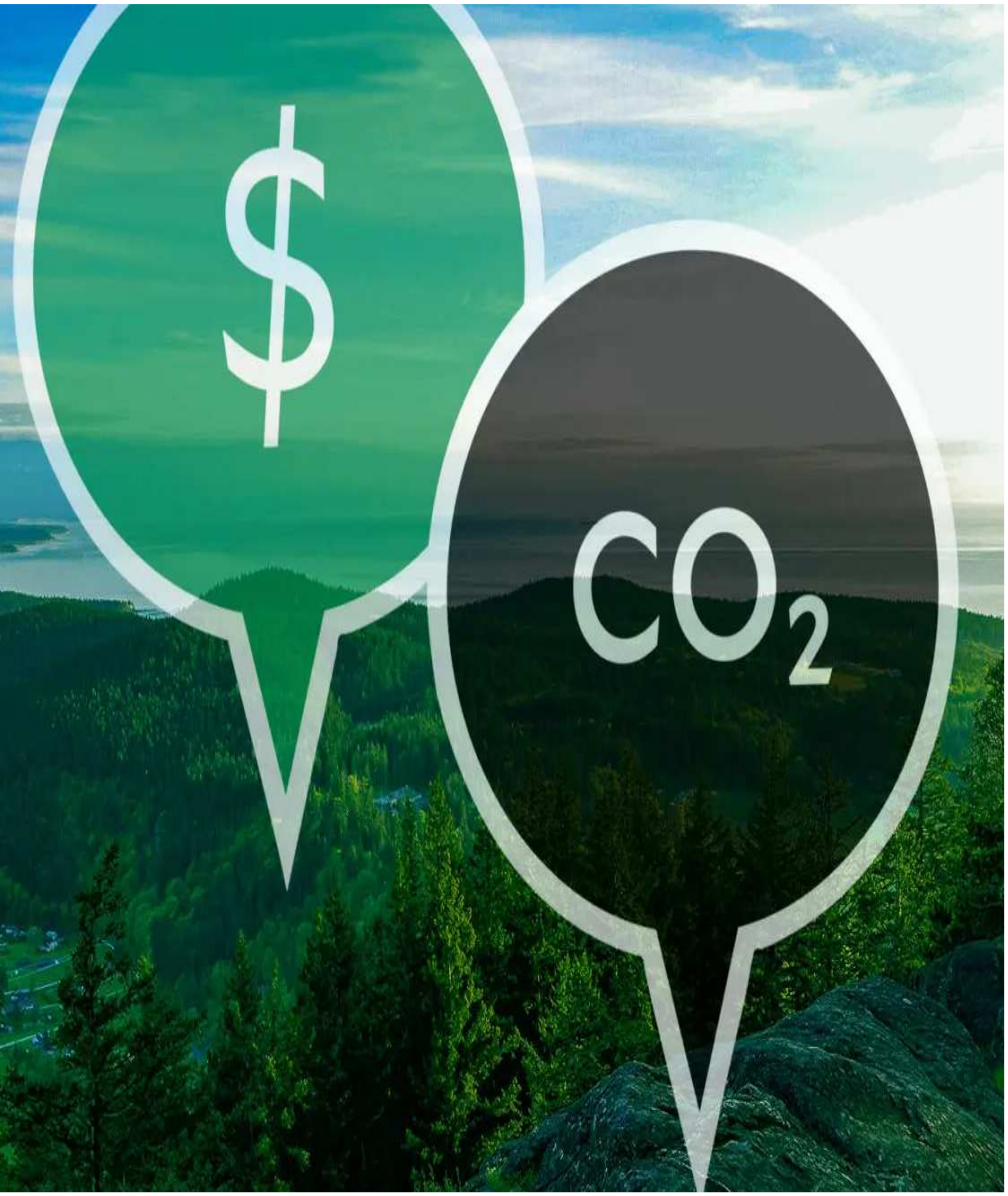
The **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)** is an international aviation regulation, starting in 2021, that seeks to reduce and offset GHG emissions from international aviation in order to generate carbon neutral growth from 2019.

The expectation of demand for compliance generated by the most recent CORSIA announcement has again **heated up the market, generating new project development cycles**.

Figure 1. Carbon credit price evolution: NBS vs CORSIA (*)

Source: S&P Global Platts

(*) The price of SBN credits includes co-benefits linked to the 'Sustainable Development Goals' (SDG) (i.e. Climate Action) and considers the following certification standards: Gold Standard, Climate Action Reserve (CAR), Verified Carbon Standard (VCS), Architecture for REDD+ Transactions and American Carbon Registry (ACR).



Carbon markets stand out as flexible and cost-effective economic instruments for mitigation;

By assigning a monetary value to GHG emissions, demand and investments are directed to **less carbon intensive alternatives**, **unlocking investments** and **encouraging technological innovation** in low carbon products and processes.

Carbon pricing can work either by **charging for GHG emissions** or by **paying for emission reductions or removals** - seeking to remunerate activities that mitigate the generation of such an externality.

Mandatory or compliance regulations

are usually applied in two ways: **taxation** of GHG emissions and/or Emissions Trading Systems (**ETS**), which work under the rationale of cap & trade.

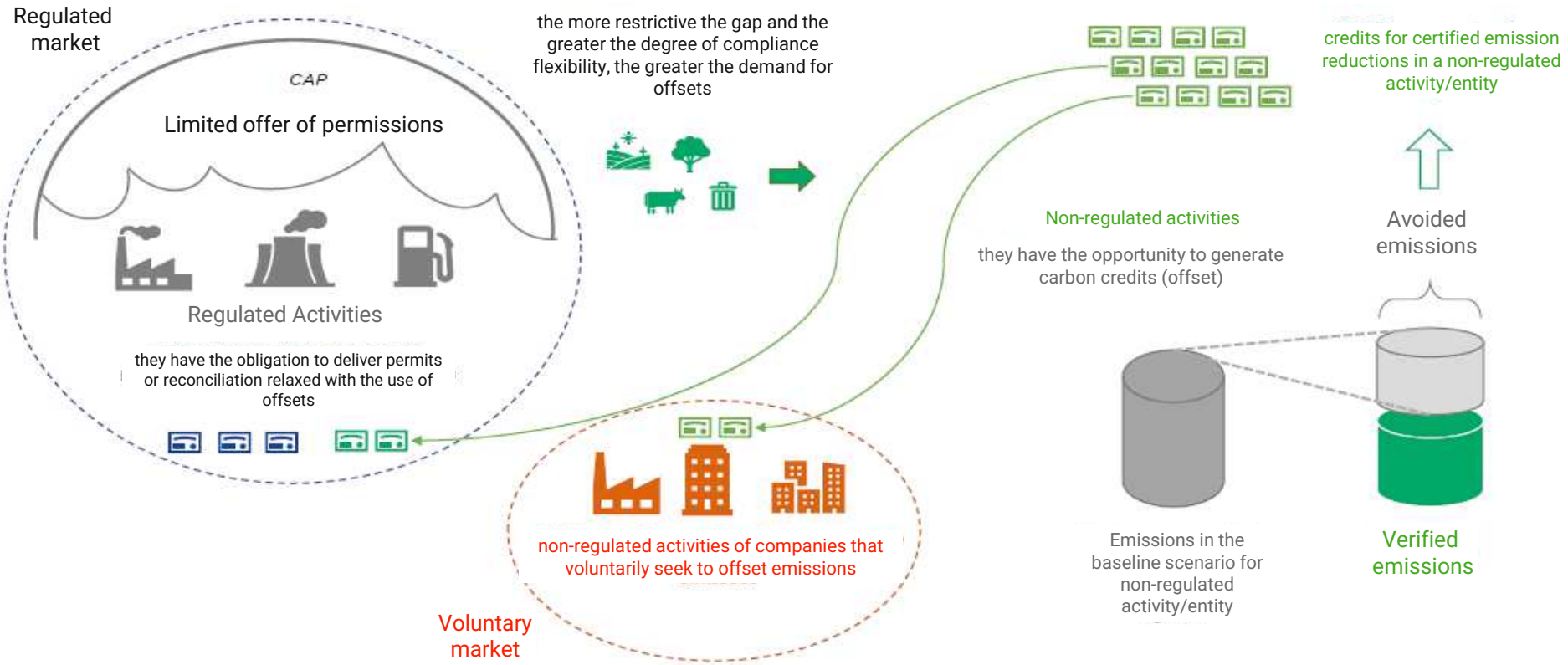
Voluntary crediting mechanisms

interested agents voluntarily develop projects that mitigate GHG emissions and, through a process of certification and validation, can convert verified emissions reductions or removals into 'carbon credits' that can be traded.

Voluntary and mandatory approaches are complementary!

On the one hand, voluntarily generated carbon credits make compliance with regulatory commitments more flexible, **reducing the cost of control** for regulated agents and **increasing the cost-effectiveness** of mitigation.
On the other hand, the credits generated in the voluntary environment benefit greatly from the **demand for offsets** created by compliance markets.

Figure 2. Relationship between mandatory and voluntary markets



Source: Prolo, Penido, Santos, & La Hoz Theuer, 2021

Despite being voluntarily generated, the emission of carbon credits **is not free of rules**. In fact, the issuance of the asset depends on the application of mechanisms that enable the **verification, validation, and certification** of a project's emissions mitigation, the so-called **certification standards**.

Figure 3. Example of carbon credit life cycle and actors potentially involved

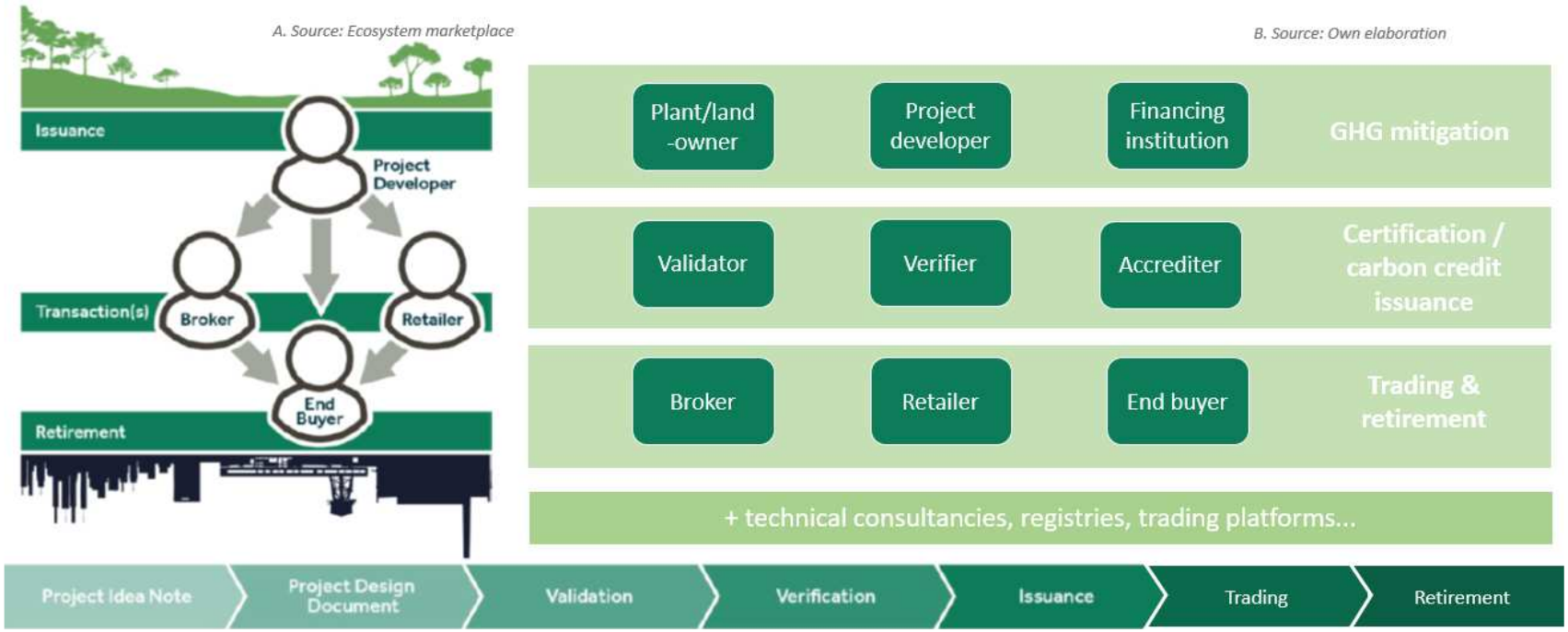
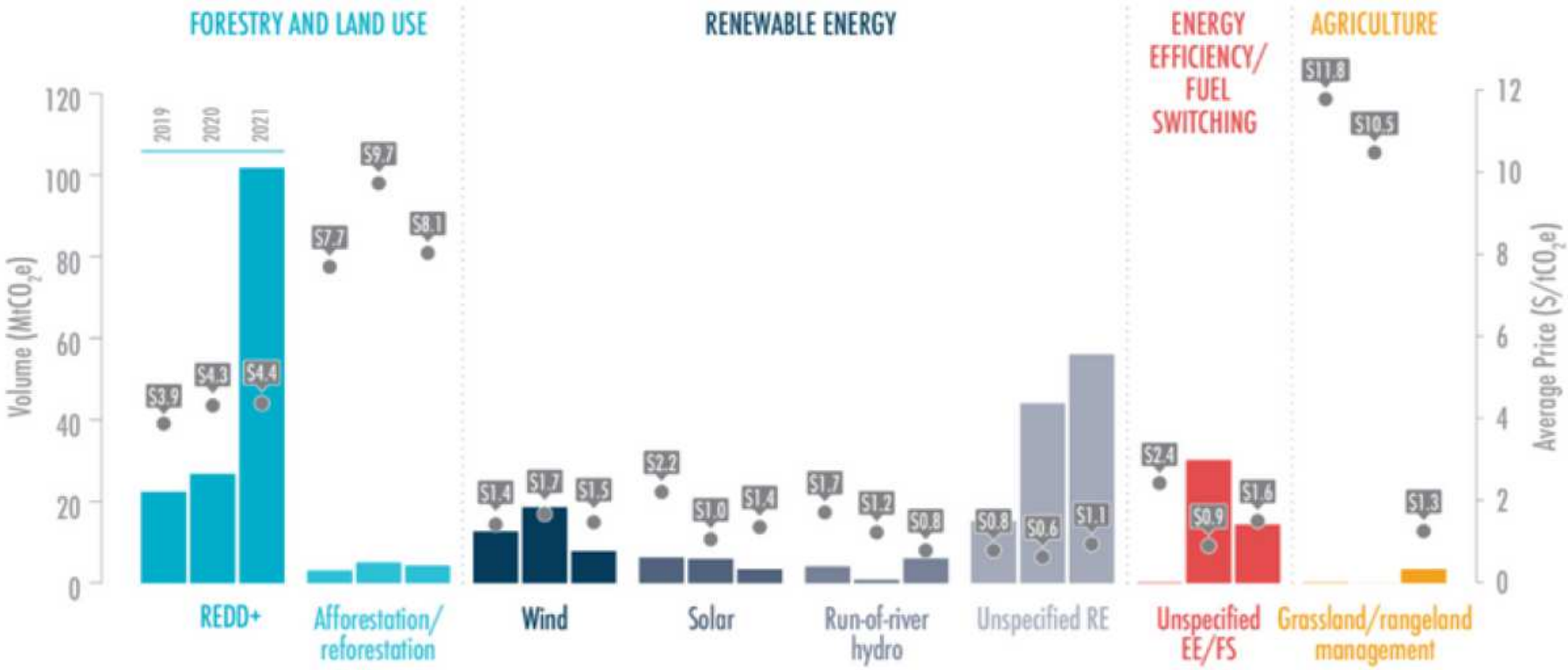


Table 1. Overview of the Voluntary Carbon Credit Market

	Volume ($MtCO_2e$)	Price/ton (US$)	Value (US$)
2019	104,3	3,07	320 mi
2020	188,2	2,51	473 mi
2021 (until Nov 9)	298,4	3,37	1,006 bi
2021 (Jan-Aug)	239,3	3,13	748 mi
2021 (Sep-Nov)	59,1	4,37	258 mi

Source: Adapted from Forest Trends' Ecosystem Marketplace, 2021

Figure 4. Volumes and prices of credits traded in the voluntary market, by source



Source: Forest Trends' Ecosystem Marketplace, 2021

The recent picture in the carbon credit markets is encouraging...

- The **average price charged on the voluntary market** between September and November 2021 rose by about 40% compared to prices from January to August, and by almost 75% compared to the previous year;

- Notably, **nature-based solutions (NBS)** credits began to dominate the market in 2021, accounting for more than 60% of the volume and 70% of the value transacted through August;

- Credits based on **REDD+** have seen exponential growth in transaction volume, and credits linked to removals (afforestation, reforestation (A/R) and forest restoration and management) in price, being traded at a value approximately five times higher than credits based on emissions reductions.

2. Latin America and the Caribbean (LAC) Diagnosis: history, trends, opportunities and challenges

Table 2. Summary table of carbon pricing initiatives in LAC

CPI Elements	Argentina	Colombia	Mexico	Chile
NDC	Limit its GHG emissions to 359 MtCO2e by 2030, incorporating climate adaptation targets	Limit its emissions to 169.44 million tCO2e in 2030, with decreasing emissions between 2027 and 2030, tending towards carbon neutrality by mid-century	A (unconditional) 22% reduction in GHG emissions and 51% reduction in black carbon emissions by 2030, and a (conditional) 36% reduction in GHG and 70% reduction in black carbon emissions by 2030	Limiting its GHG emissions to 1100 MtCO2e between 2020 and 2030, peaking by 2025 and reaching an emissions level of 95 MtCO2e by 2030, with a climate neutrality target for 2050
Total Emissions (baseline 2015)	441Mt CO2e	190Mt CO2e	822Mt CO2e	149Mt CO2e
CPI Type	Carbon Tax	Carbon Tax	Carbon Tax / Pilot ETS	Carbon Tax
Regulation	Law 27.430, 2017 (Tax Reform)	Law 1931, 2018 (Art 29 and 30)	General Law on Climate Change Art 94 (2018 Reform)	Framework-Law on Climate Change (under discussion)
Implementation Year	2018	2017	2014	2017
National Coverage (% GHG Emissions)	Approx. 40%	Approx. 20%	Approx. 30%	Approx. 42%
Regulated Entities	Purchase/sale of fossil fuels; all sectors except biofuels	Purchase/sale of fossil fuels; all sectors except coal	Purchase/sale of fossil fuels; all sectors except gas	Boiler/turbine emissions (>50MW); all sectors and fossil fuels except biomass
Price (US$/Ton CO2e)	1 - 10 (2019-2028)	5	1 - 4	5
"Offsets" Use	No	Yes	Yes	Expected
Recycling Revenue	General Budget	Sustainable Colombia Fund and Offsets	General Budget	General Budget
Ongoing	PMR assistance in the feasibility of using energy certificates and revising the CPI	Proposal for an Emissions Trading System	Pilot phase of the ETS by the end of 2022. Operational phase from 2023	Framework Law on Climate Change that sets a carbon neutrality target for 2050. The bill includes provisions for an Emissions Trading System

Table 4. Volume of LAC's carbon credits in circulation around the world

LAC in Volume Circulation							
	Total	**% World**	**% LAC**	**NBS (avoided)**	**NBS (removed)**	**RE**	**Others**
Brazil	**47.593.230**	**9,6%**	**44,7%**	**33.240.471**	**3.987.979**	**8.113.715**	**2.251.065**
Peru	**33.877.599**	**6,8%**	**31,8%**	**32.473.549**	**130.639**	**0**	**1.273.411**
Colombia	**6.875.890**	**1,4%**	**6,5%**	**5.865.453**	**716.595**	**231.701**	**62.141**
Chile	**1.508.869**	**0,3%**	**1,4%**	**25.120**	**441.819**	**455.556**	**586.374**
Argentina	**1.270.047**	**0,3%**	**1,2%**	**0**	**0**	**1.259.145**	**10.902**
Mexico	**939.680**	**0,2%**	**0,9%**	**0**	**652.188**	**41.648**	**245.844**
Uruguay	5.442.741	1,1%	5,1%	0	5.403.612	38.140	989
Guatemala	4.010.105	0,8%	3,8%	3.316.571	55.839	500	637.195
Panama	2.218.808	0,4%	2,1%	0	2.218.808	0	0
Honduras	1.093.821	0,2%	1,0%	0	0	338.319	755.502
Others (approx.)	1.715.997	0,3%	1,6%	140.243	504.171	718.436	353.147
Total	**106.546.787**	**21,5%**	**100,0%**	**70,4%**	**13,2%**	**10,5%**	**5,8%**

Source: Climate Focus Voluntary Carbon Markets Dashboard / based on VCS, GS, CAR, and ACR standard (Feb 22, 2022)

Figure 5. SWOT Matrix - LAC in carbon markets

Figure 6. Risk factors for the competitiveness of LAC's carbon credits

*NBS: Nature Based Solutions

LAC is possibly the region with the greatest potential for the development of projects to generate carbon credits, particularly from NBS, but also including other sources, such as renewable energy and bioenergy;

We highlight (i) the need to **map the main sources and potentials for carbon credit generation** in the region, as well as (ii) the **possibility of carbon credit supply to meet international demand** (voluntary or compliance) and (iii) the **development of comparative advantages of natural capital**, generating jobs, optimizing efforts, developing sustainable business clusters, attracting technologies and catalyzing national and international private capital to projects of highly positive social impacts;

Such opportunities can foster the development of a regional market capable of promoting (i) sophisticated and low-cost value chains (legal services, auditing, consulting, certification, monitoring, blockchain, project developers, financial services, etc.), (ii) the development of projects capable of attracting investors and generating credits with international liquidity, and (iii) gains of scale resulting from regulatory harmonization and regional coordination between national carbon market development experiences.

This can allow for a relevant contribution to achieving SDGs in LAC.

However, there are some challenges, among them the need to (i) promote the development of capacities (**human capital**), in addition to (ii) foster **better communication and the harmonization/standardization of processes, taxonomies, methodologies, certification standards** and many other complex issues that permeate the progress of a regional market, (iii) **analyze the institutionality, governance and transparency of this market**, (iv) **develop adequate and attractive financial and non-financial instruments and mobilize resources to finance projects at a national level at competitive prices and conditions**, as well as (v) **promote a synergic development between national markets and the regional market**;

Furthermore, there are **specific challenges that will have to be faced country by country in order to have a regional vision**, such as (i) political challenges regarding a regional strategic vision and not only a national one, (ii) the existence of sub-regional markets, such as the Pacific Alliance, (iii) and, finally, the unequal size of the markets in the region, which can generate mistrust;

Thus, addressing these challenges is critical to ensure the integrity and competitiveness of LAC's credit offerings, particularly SBN, in the international marketplace.

Work Program 2022-2026

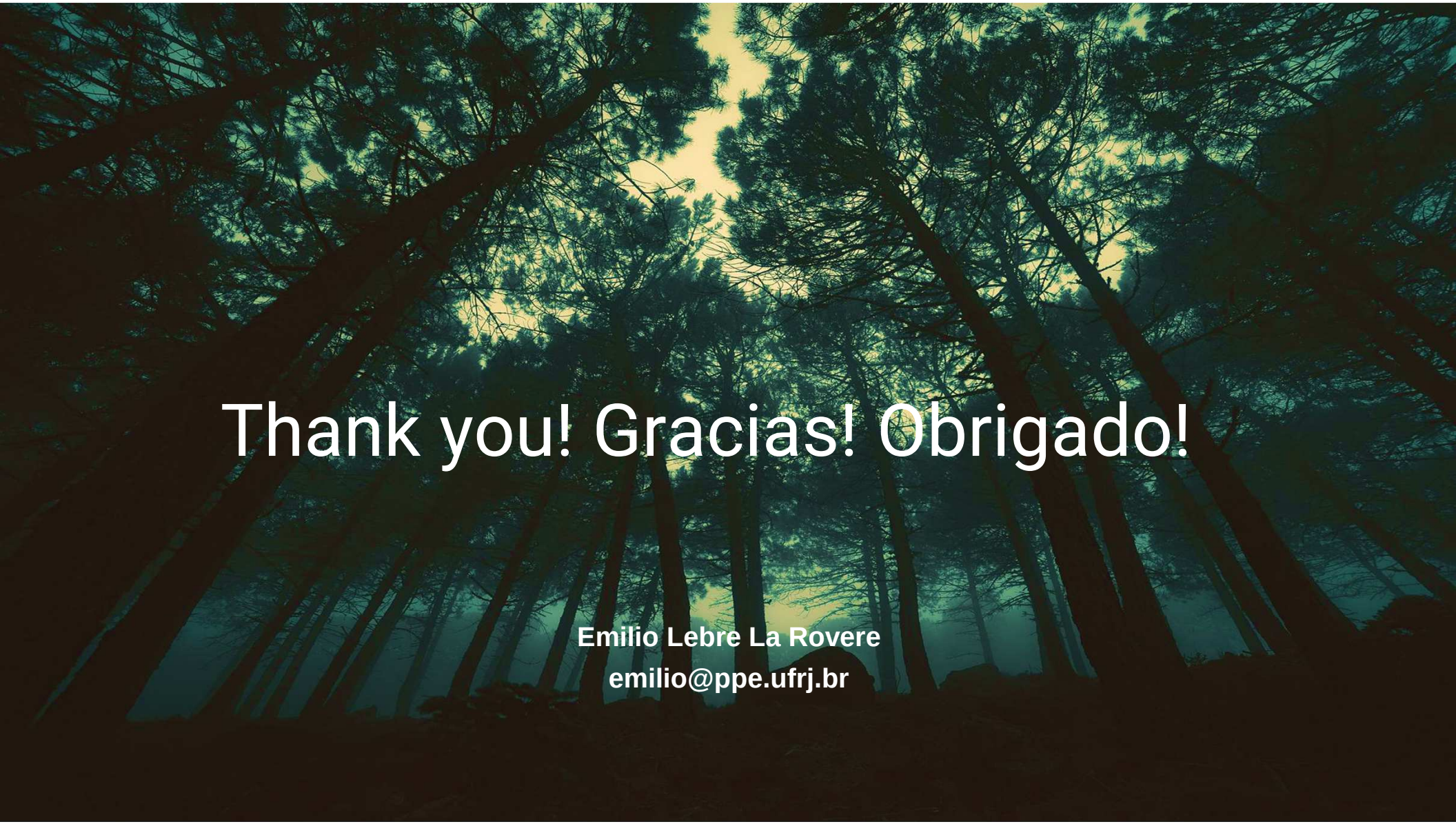
This work front seeks to improve the knowledge of development banks and other key players in the region through training sessions with experts and development of support material.

The aim is to evaluate and compare the different carbon credit certification/standard methodologies (VERRA, Gold Standard, etc.), seeking to assess the state-of-the-art, as well as pros and cons.

Identification of project financing gaps in the region, aiming at ensuring the availability of resources and the development of financial products by development banks.

Mapping and building the governance structure of the regional market, considering the various institutions and stakeholders involved.

A transversal element to the initiatives presented, being responsible for mapping and following up the conjuncture and dynamics of the markets, resulting in quarterly publications, with the objective of sharing information about the ILACC. It is, therefore, a platform of communication and dissemination of updated information.



Thank you! Gracias! Obrigado!

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