

LDC – Intro to carbon pricing and trends

Antigua, Guatemala, 01 March 2024

IULE ARRUDA

Regional Head Carbon Solutions Platform – LATAM

iule.arruda@ldc.com



-
- I LDC and Carbon Solutions Platform overview
 - II Carbon Markets intro
 - III LDC Sustainability and Carbon Commitments
 - IV General market trends
 - V Palm Oil Footprint and opportunities

Established in
1851

10
platforms

≈17,000
employees

Originating, processing
and transporting
≈80 million
tons of commodities annually
on average

Capital Expenditure of
US\$549 million*

US\$1,006 million*
Net Income, Group Share

US\$59.9 billion*
Net Sales

Active in
100+
countries

6
geographic regions

Our Platforms

Carbon Solutions

Driving LDC's decarbonization efforts toward more sustainable global operations and value chains.

Coffee

Major Arabica and Robusta varieties, specialty coffee and roasted coffee.

Cotton

Upland saw ginned cotton, pima and extra-long staple, sourced from all major producers.

Food & Feed Solutions

Lecithin, glycerin, edible oil and specialty feed proteins.

Freight

Global ocean transportation solutions to support LDC's global activities, as well as for third parties, thanks to an extensive network and involvement in major trade flows.

Global Markets

Foreign exchange interest rate risk management for LDC's activities worldwide.

Grains & Oilseeds

Soybeans, canola, rapeseed, cottonseed, sunflower seeds, peanut, palm meals and oils (crude & refined, bulk & bottled), lecithin, glycerin (crude & refined), biodiesel, wheat, white & yellow corn, dried distillers' grains, sorghum, barley, rye, oats, chickpeas, ethanol, fertilizers, inputs and seeds.

Juice

Orange, lime, lemon and apple juices, and specialty by-products from fruit processing (citrus oils and aromas, dry peel, citrus pulp pellets).

Rice

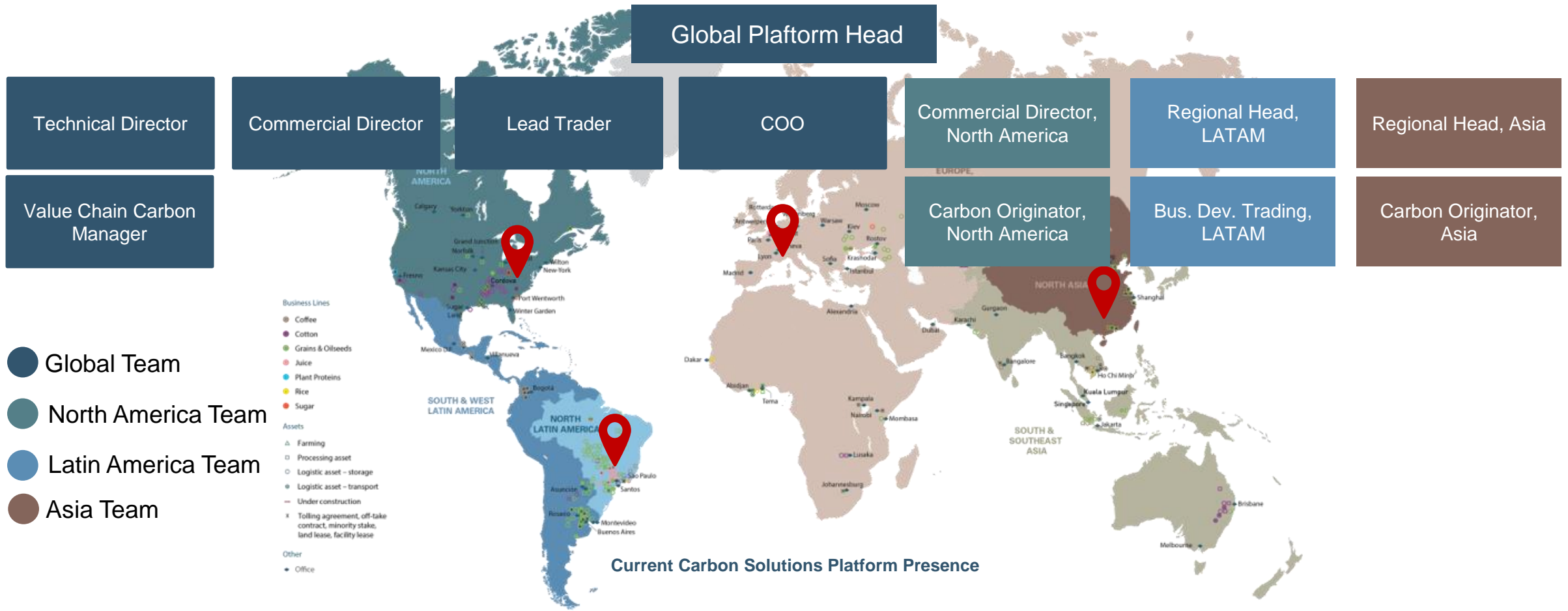
Paddy, brown, milled and parboiled and premium rice (bulk and packaged).

Sugar

Beet sugar, cane raw sugar, crystal sugar, refined sugar and ethanol.

Carbon Solutions Platform

Who are we and where we are?



- Global Team
- North America Team
- Latin America Team
- Asia Team

Carbon Solutions Platform

What do we do?



Decarbonization

Develop and implement LDC's decarbonization roadmap, in collaboration with all platforms and functions



Carbon Knowledge Center

Be an internal focal point for all climate-related topics, and support communication of targets and results to stakeholders



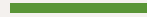
Carbon Markets

Trade in compliance and voluntary carbon markets, and build a portfolio of high-quality carbon credits



Carbon Investments

Pursue climate-focused joint ventures, mergers & acquisitions



- I LDC and Carbon Solutions Platform overview
- II Carbon Markets intro
- III LDC Sustainability and Carbon Commitments
- IV General market trends
- V Palm Oil Footprint and opportunities

Global greenhouse gas emissions

How much can it get worse?

Annual global greenhouse gas emissions
in gigatonnes of carbon dioxide-equivalents

150 Gt

100 Gt

50 Gt

Greenhouse gas emissions
up to the present

0

1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100

No climate policies

4.1 – 4.8 °C

→ expected emissions in a baseline scenario if countries had not implemented climate reduction policies.

Current policies

2.5 – 2.9 °C

→ emissions with current climate policies in place result in warming of 2.5 to 2.9°C by 2100.

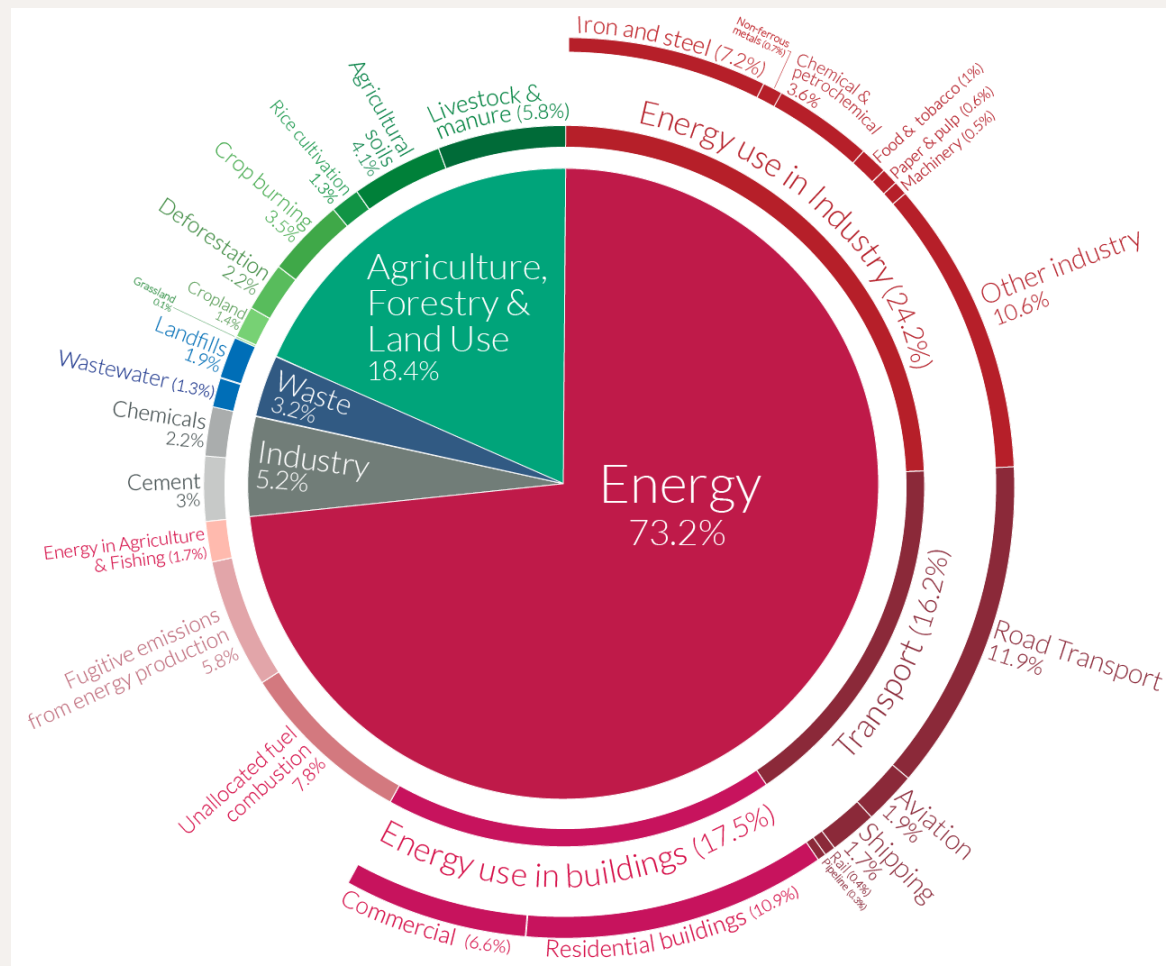
Pledges & targets (2.1 °C)

→ emissions if all countries delivered on reduction pledges result in warming of 2.1°C by 2100.

2°C pathways

1.5°C pathways

Global greenhouse gas emissions by sector



OurWorldinData.org – Research and data to make progress against the world's largest problems.
 Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020).

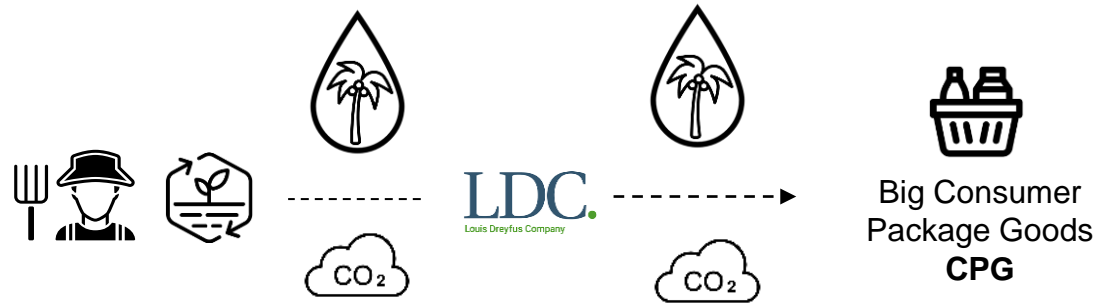


Agriculture is part of the problem and part of the solution.
 We must act **now!**

Insetting vs Offsetting

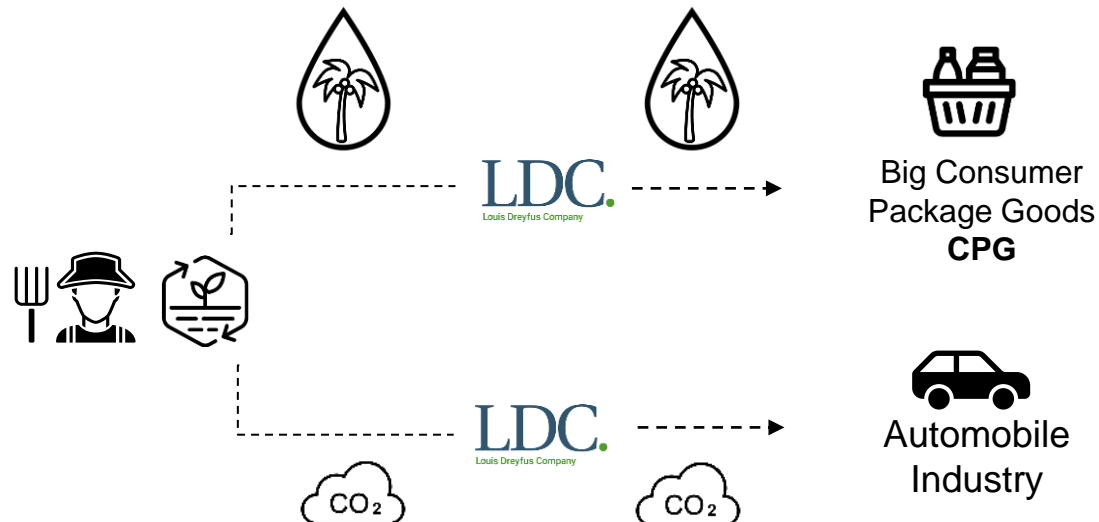
Ways to reduce the carbon footprint

INSETTING



Emission reductions are generated **within (in)** a company's value chain and **can** be accounted for **through the value chain** (ALL MEMBERS IN THE CHAIN)

OFFSETTING



Emission reductions are generated **outside (off)** the company's value chain that compensates the emissions and **cannot be double-accounted for**

What are carbon markets?

One type of carbon pricing



Today

Carbon pricing instruments help channel economic activities toward a low-carbon future.

Carbon markets could be seen as “**bridges**” to help the world on its path to decarbonization by providing market mechanisms for mitigation to be achieved at a lowest possible cost.

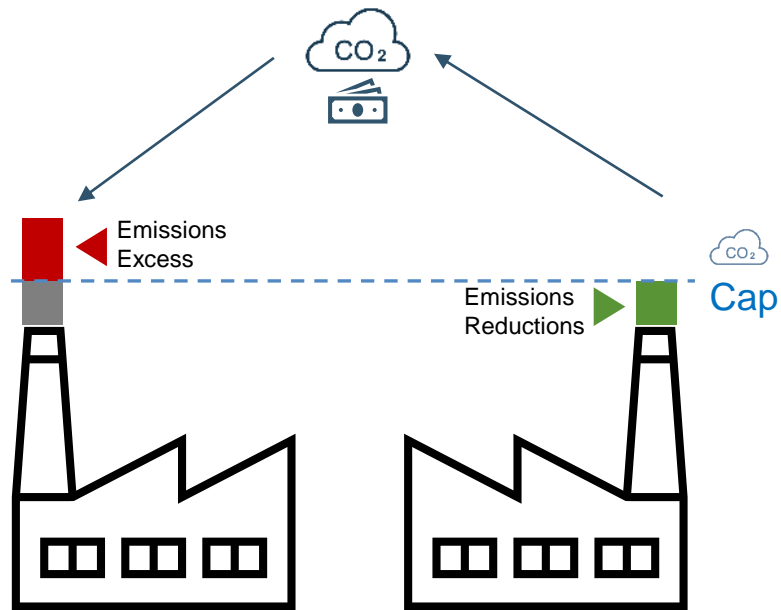


Limit global
warming to
1.5C
Net Zero
Emissions by
2050

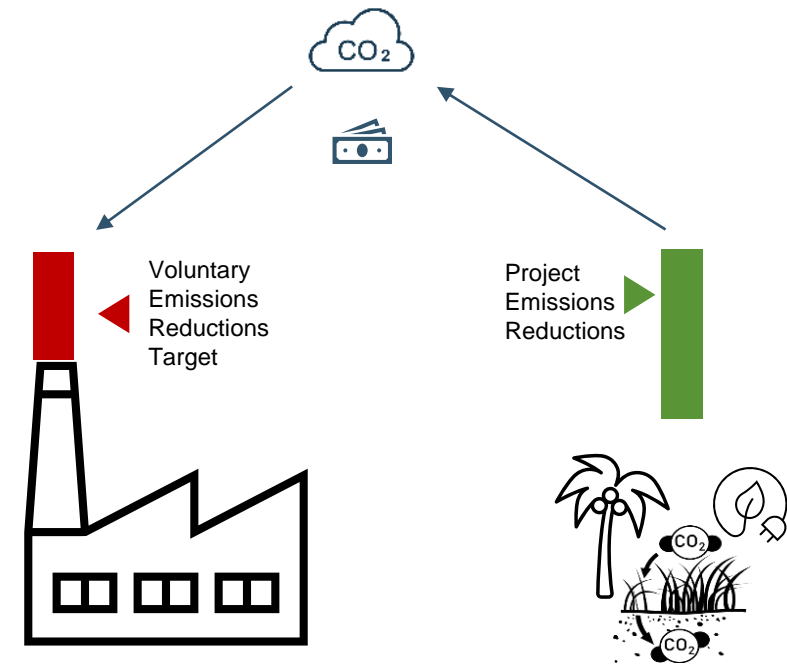
Types of carbon markets

The production, buying and selling of Carbon Credits that represents one ton of **CO₂eq**

Compliance Carbon Market



Voluntary Carbon Market



Key principles for high-integrity carbon emissions

To issue carbon credits projects must comply with standards and requirements



Activity not taking place in absence of carbon certification and related revenues.

Additionality



Emission reductions must not be shifted to a different location (unavoidable leakage should be deducted).

Leakage



The emission reductions or removals shall be permanent, or if they have a risk of reversal, any reversals shall be fully compensated during the crediting period.

Permanence



The GHG emission reductions or removals shall not be double-counted, i.e., they shall only be counted once towards achieving targets*.

Unique

* it is a big difference with insetting where the emissions reductions can be counted through the value chain.



-
- I LDC and Carbon Solutions Platform overview
 - II Carbon Markets intro
 - III LDC Sustainability and Carbon Commitments
 - IV General market trends
 - V Palm Oil Footprint and opportunities

Targeting a



33.6%

**reduction in Scope 1 and 2
emissions by 2030**

vs. 2022

LDC commitment to decarbonization

LDC Carbon Solutions Platform drives our decarbonization efforts in own operations and value chains

Scope 1 and 2 measured, determined a baseline with base year 2022, reported and published in sustainability report.

Scope 3 reduction target to be formalized by mid-2024

LDC made strong commitment

Zero deforestation is critical for decarbonization



LDC Commits to Zero
Deforestation & Native Vegetation
Conversion from 2020 in Its
Supply Chain by End 2025

LDC Carbon Solutions - LATAM

The Carbon Platform aims to continue the decarbonization journey, support platforms, build a high quality & diversified portfolio (carbon removals and regenerative agriculture) and trade carbon credits. We have launched several initiatives to decarbonize our supply chain and our customers' supply chain



Scope 1&2 reduction

33.6% reduction in Scope 1&2 between 2022 and 2030

Scope 1 and 2 measured, determined a baseline with base year 2022, reported and published in sustainability report.



Customer centricity

We engage with our upstream suppliers to adopt good agricultural practices, improve their soil health, carbon stocks, biodiversity to value them by bringing this value added to the downstream clients



Major initiatives

Industry leading Non-Deforestation – Non-Conversion commitment

Several Regenerative Agriculture pilots launched



Traceability

Traceability and access to data will be key to substantiate auditable environmental claims



Emission factors

We have launched specific emissions factors studies for our main commodities to reflect accurately the carbon footprint across our supply chain



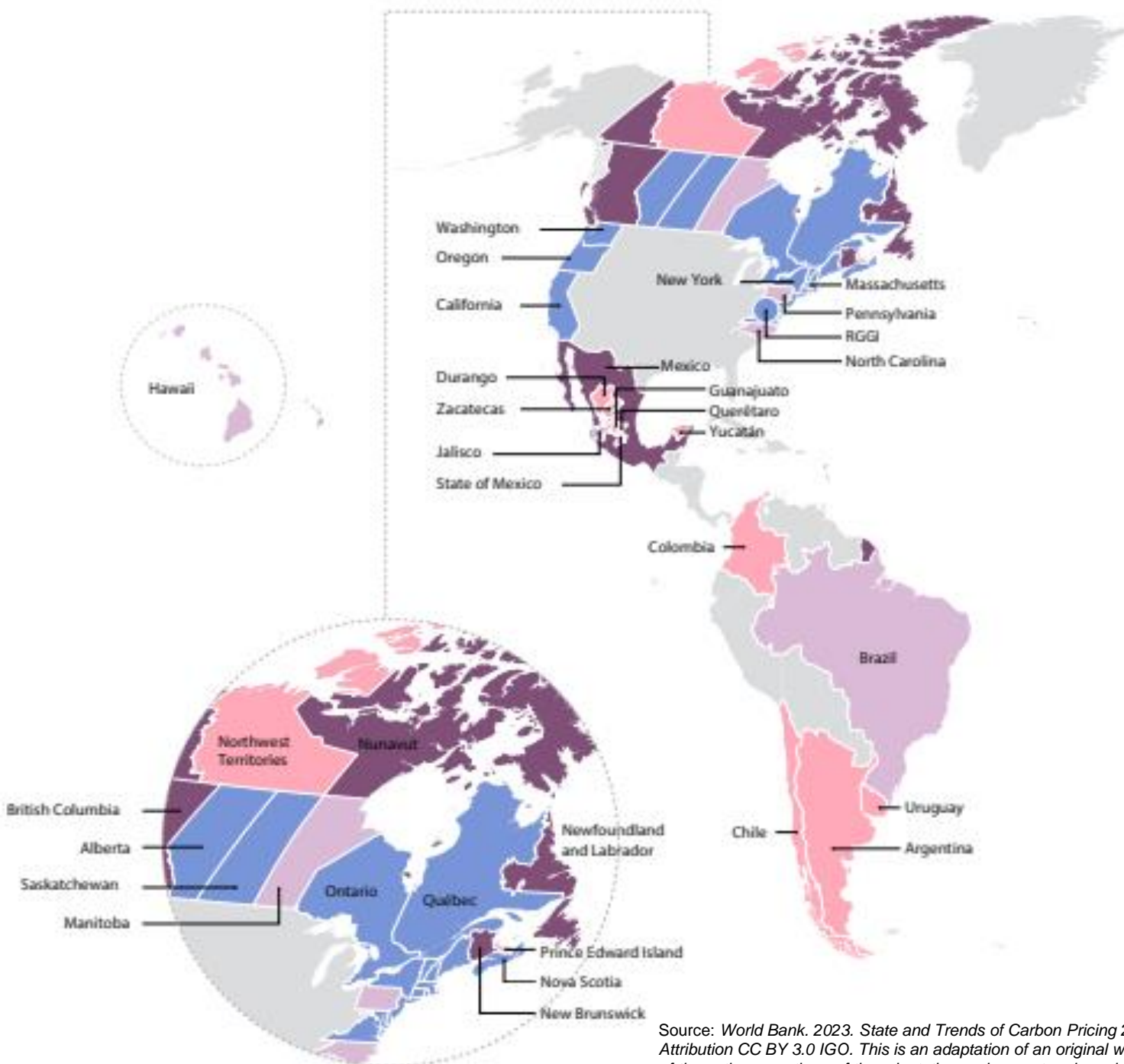
Carbon Development and Trading

Trading (buying and selling) high quality carbon credits from a number of projects supporting local Nature Based Solutions carbon projects development



-
- I LDC and Carbon Solutions Platform overview
 - II Carbon Markets intro
 - III LDC Sustainability and Carbon Commitments
 - IV General market trends
 - V Palm Oil Footprint and opportunities

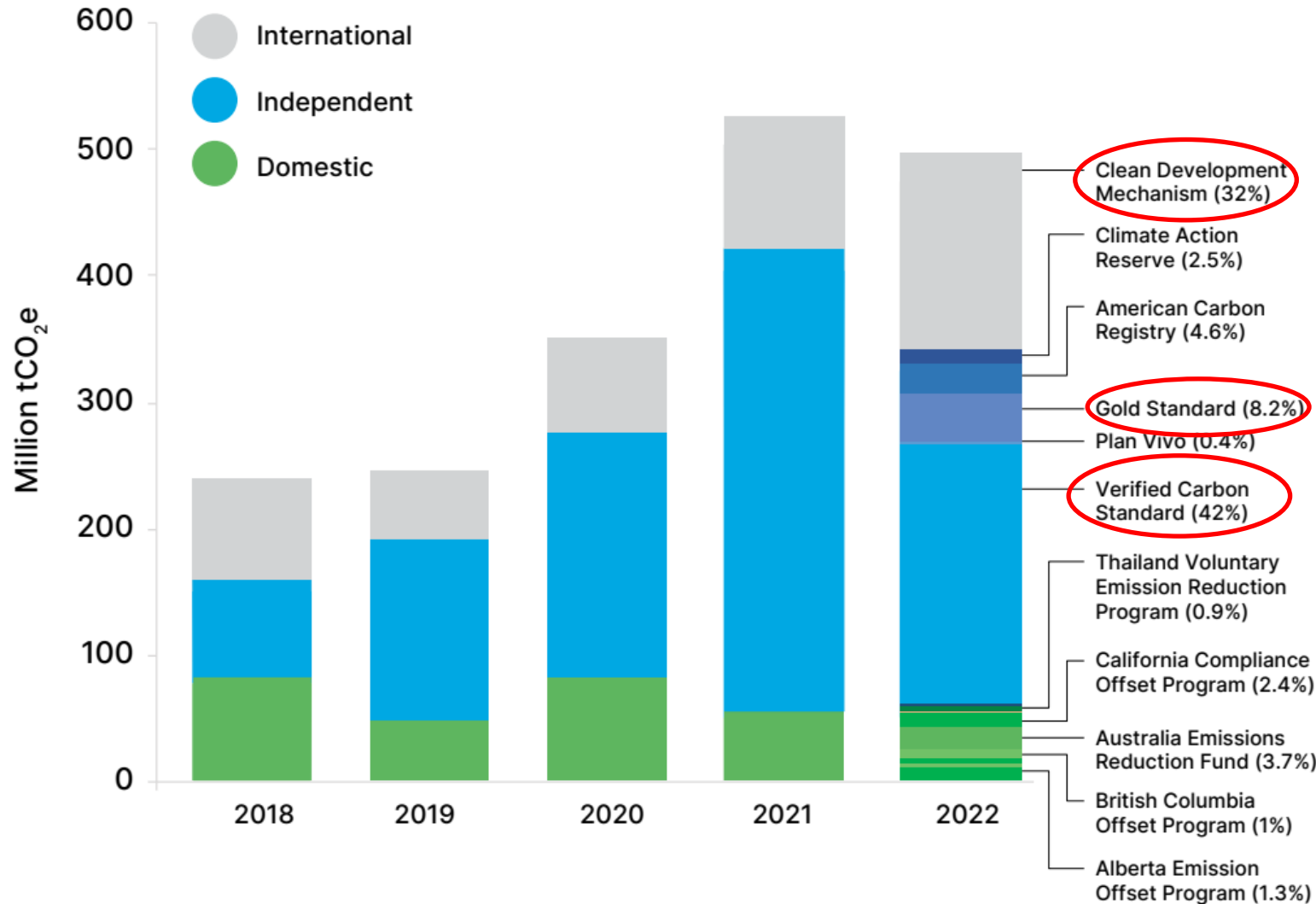
MAP OF CARBON TAXES AND ETSs IN AMERICAS



- ETS and Carbon Tax Implemented or Scheduled
- ETS Implemented or Scheduled for Implementation
- Carbon Tax Implemented or Scheduled for Implementation
- ETS or Carbon Tax Under Consideration

State and Trends of Carbon Pricing

GLOBAL VOLUME OF ISSUANCES BY CREDITING MECHANISM TYPE (2018–2022)

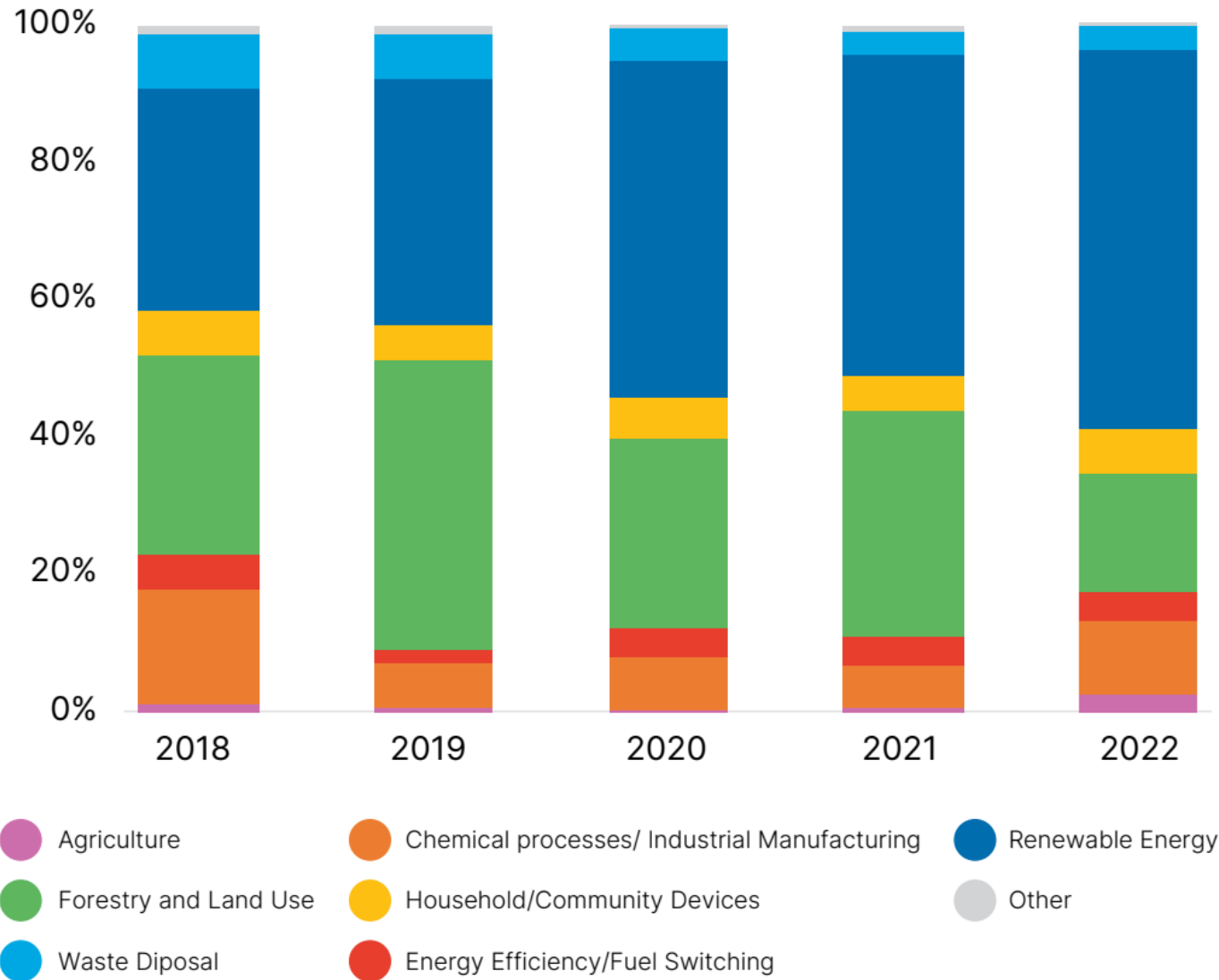


3 Standard Mechanisms are responsible for more than **80%** of total carbon credit issuances

Source: World Bank. 2023. State and Trends of Carbon Pricing 2023. Washington, DC: World Bank. doi: 10.1596/978-1-4648-2006-9. License: Creative Commons Attribution CC BY 3.0 IGO. This is an adaptation of an original work by the World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by the World Bank

State and Trends of Carbon Pricing

PERCENTAGE OF TOTAL ISSUANCE BY PROJECT CATEGORY AND YEAR

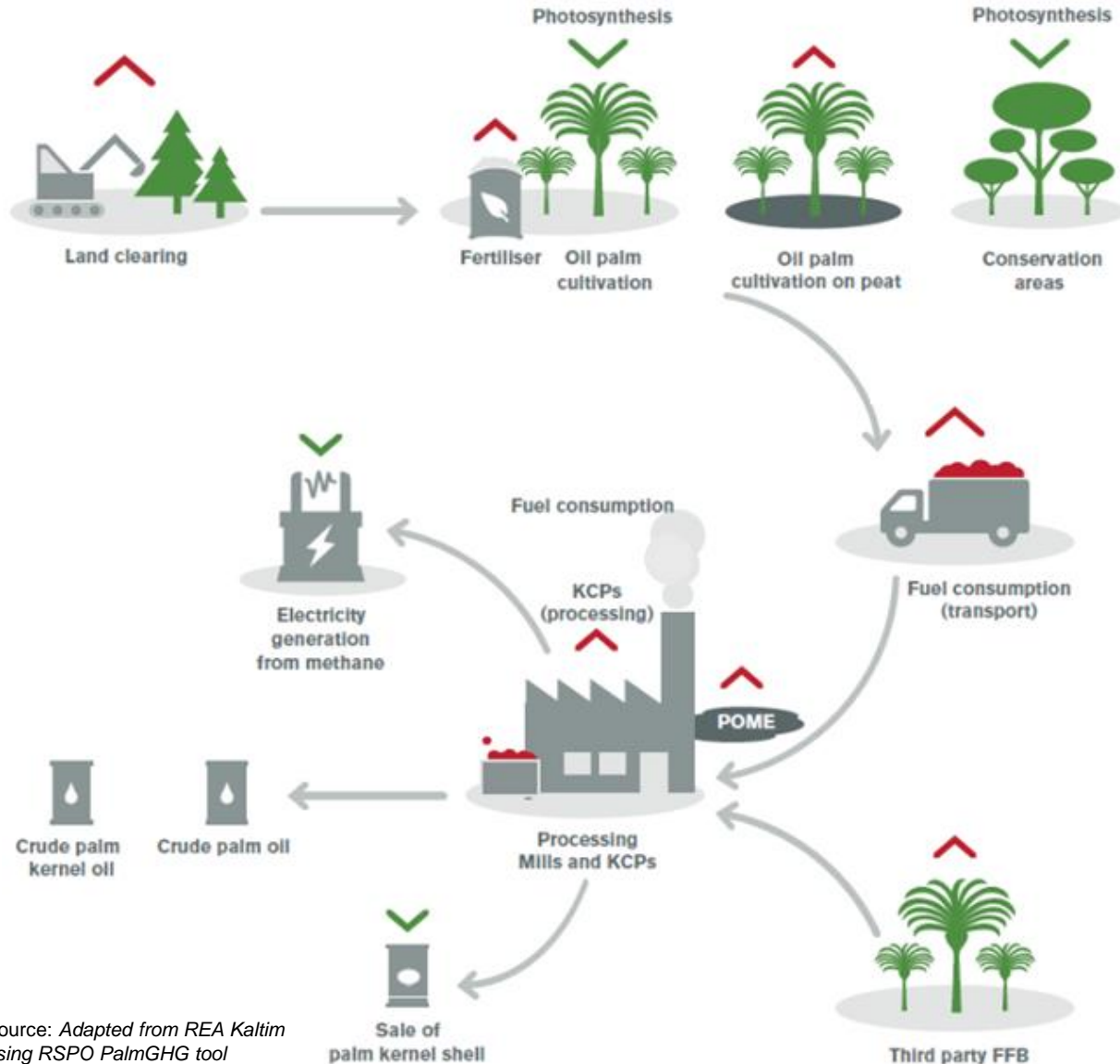




- I LDC and Carbon Solutions Platform overview
- II Carbon Markets intro
- III LDC Sustainability and Carbon Commitments
- IV General market trends
- V Palm Oil Footprint and opportunities

Palm oil carbon footprint

It is important not only produce with low emissions practices but implement processes and systems permitting traceability, providing customers auditable data



Source: Adapted from REA Kaltim using RSPO PalmGHG tool

Importance of low carbon palm

- ✓ Maintain access to capital from financiers under more and more scrutiny
- ✓ Maintain access to markets with upcoming carbon-related constraints
- ✓ Retain customers with growing environmental expectations
- ✓ Gain market shares in new, environmentally-driven markets
- ✓ Prepare for mandatory reporting & maintain license to operate

Opportunities for collaboration

Working together with Monitoring, Reporting and Verification providers in collaboration with Palm Oil suppliers to decarbonize the palm oil value chain and/or engage in carbon markets



Opportunities for collaboration

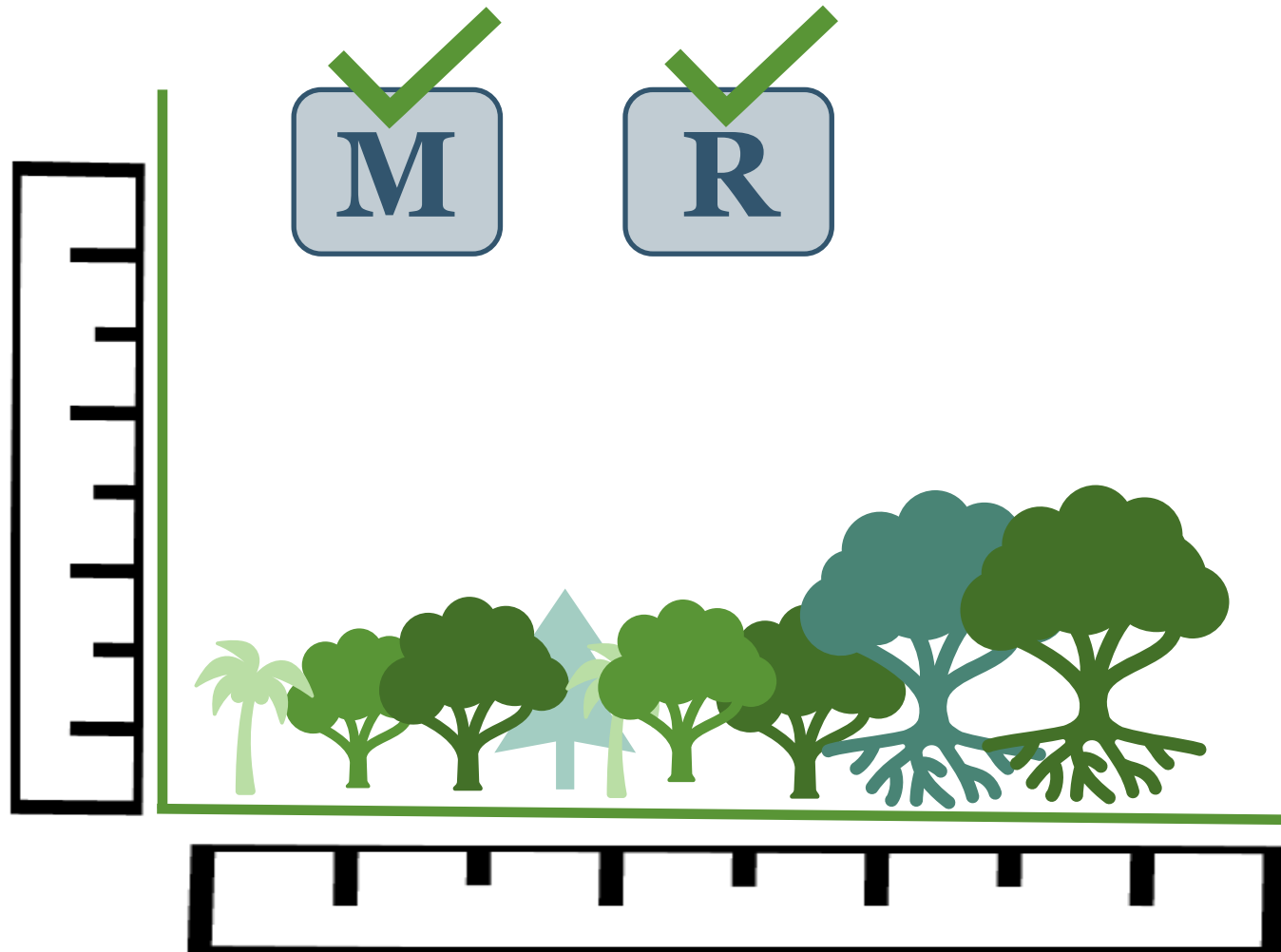
Working together with Monitoring, Reporting and Verification providers in collaboration with Palm Oil suppliers to decarbonize the palm oil value chain and/or engage in carbon markets



✓ **Measure:** the emissions and removals from specific activity over a period of time;

Opportunities for collaboration

Working together with Monitoring, Reporting and Verification providers in collaboration with Palm Oil suppliers to decarbonize the palm oil value chain and/or engage in carbon markets

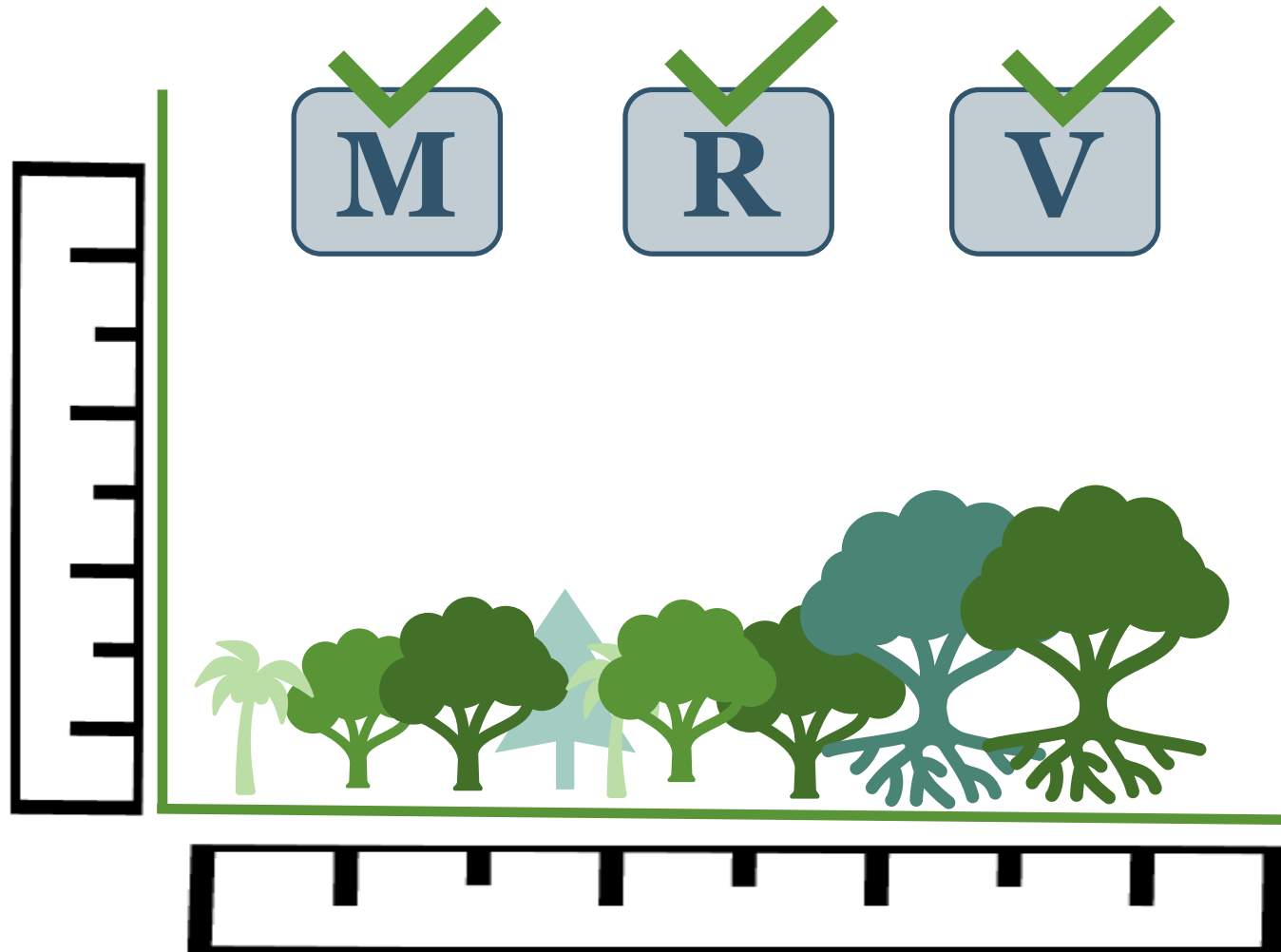


✓ **Measure:** the emissions and removals from specific activity over a period of time;

✓ **Report:** these finds to an accreditor third part; that,

Opportunities for collaboration

Working together with Monitoring, Reporting and Verification providers in collaboration with Palm Oil suppliers to decarbonize the palm oil value chain and/or engage in carbon markets



- ✓ **Measure:** the emissions and removals from specific activity over a period of time;
- ✓ **Report:** these finds to an accreditor third part; that,
- ✓ **Verifies:** the report so the results can be certified and emissions reductions can be issued and credibly accounted.

Thank you!



This presentation is not intended to form the basis of a decision to purchase securities or any other investment decision and does not constitute an offer, invitation or recommendation for the sale or purchase of securities. Neither the information contained in this presentation, nor any further information made available in connection with the subject matter contained herein will form the basis of any contract.

This presentation does not purport to be comprehensive or to contain all the information that a prospective business partner, lender or investor may need. The information contained herein is based on currently available information and sources, which we believe to be reliable, but we do not represent it is accurate or complete.

The recipient of this presentation must make its own investigation and assessment of the ideas and concepts presented herein.

No representation, warranty or undertaking, express or implied, is or will be made or given and no responsibility or liability is or will be accepted by Louis Dreyfus Company or by any of its directors, officers, employees, agents or advisers, in relation to the accuracy or completeness of this presentation or any other written or oral information made available in connection with the ideas and concepts presented herein. Any responsibility or liability for any such information is expressly disclaimed.

In providing this presentation, Louis Dreyfus Company undertakes no obligation to provide the recipient with access to any additional information,

or to update, or to correct any inaccuracies which may become apparent in, this presentation or any other information made available in connection with the ideas and concepts presented herein.

This presentation is private and confidential and is being made available to the recipient on the express understanding that it will be kept confidential and that the recipient shall not copy, reproduce, distribute or pass to third parties this presentation in whole or in part at any time.

This presentation is the property of Louis Dreyfus Company, the recipient agrees that it will, on request, promptly return this presentation and all other information supplied in connection with the ideas and concepts presented herein, without retaining any copies.



CALIFICA A NUESTRO CONFERENCISTA



Iule Arruda