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TRANSITION FINANCE & INVESTMENT

WORKING GROUP DOCUMENT

CNI Brazilian National Confederation of Industry

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TABLE OF CONTENTS

FOREWORD BY THE WORKING GROUP CHAIR

LUCIANA RIBEIRO
CEO, EB CLIMATE

The SB COP has become a landmark initiative, enabling unprecedented private sector engagement in the COP agenda. Within this context, our Working Group recognizes both the urgency and the opportunity of this moment. Mobilizing capital at scale for mitigation, adaptation, and resilience is not only a technical challenge, but also a test of global cooperation. EMDCs hold the greatest potential for transformative impact yet face steep barriers — higher capital costs and persistent risk perceptions—that continue to constrain investment flows.

Our group has worked to address these challenges through three core pillars:

1. Adjusting **financial mechanisms** to mitigate macroeconomic and investment risks, attracting private capital across EMDCs
2. Converging **carbon markets** to build an integrity-driven and interoperable pathway that channels investments across borders
3. Unlocking tailored solutions for **hard-to-abate sectors**, leveraging regulatory advancements that open opportunities to mobilize capital for decarbonization

The insights and frameworks consolidated here are the result of deep collaboration among co-chairs, members, and partners worldwide. They reflect a pragmatic approach: learning from real cases, building on existing initiatives, and proposing actionable pathways for implementation.

While the task ahead is immense, it also opens opportunities for innovation, partnership, and shared prosperity. I extend my gratitude to all contributors and invite continued collaboration to transform these recommendations into tangible progress —towards a fairer world and a sustainable planet.

Luciana Ribeiro

Chair of the SB COP Transition Finance & Investment Working Group
CEO, eB Climate

FOREWORD BY THE WORKING GROUP DEPUTY CHAIRS & CO-CHAIRS

DEPUTY CHAIRS

GIANLUCA RICCIO

CHAIR FINANCE COMMITTEE, BUSINESS AT OECD

The global economy stands at a crossroads, demanding a new engine for growth. The G20's recommendations emphasize collaboration and alignment to achieve sustainable development. This paper explores how end-to-end finance solutions, from investment funds to working capital, can deliver sustainability targets. It urges public and private players to seek synergies and support the transition to resilient growth, especially for local communities and SMEs.

LUISA PALACIOS

RESEARCH DIRECTOR AND MANAGING DIRECTOR OF ENERGY TRANSITION FINANCE, CENTER ON GLOBAL ENERGY POLICY SIPA, COLUMBIA UNIVERSITY

The financing of hard-to-abate sectors was one of the key priorities of the Transition Finance & Investment Working Group. Such work highlighted the importance of channeling capital toward emissions reductions in the real economy. Examining the decarbonization pathways of hard-to-abate sectors, such as shipping, is critical to identify what is required to turn ambition into bankable solutions.

PAULA KOVARSKY

PARTNER, LEGEND CAPITAL

As Deputy-Chair for Transition Finance & Investment, the focus was on carbon markets convergence: scale voluntary markets into compliance through regulated exchanges and corresponding adjustments — eady for bilateral recognition now and Article 6.4 as soon as possible. Building on existing voluntary/high integrity deals, the group advanced practical pilots to prepare them to be recognized and possibly migrate in the future.

CO-CHAIRS

AHMED SAEED

CEO, ALLIED CLIMATE PARTNERS

Transition finance must move from ambition to scale. Our work at SB COP shows that with creativity and collaboration, we can turn ideas into lasting impact by mobilizing catalytic capital and funding at scale for sustainable projects, building credible carbon markets, and advancing solutions in hard-to-abate sectors. These priorities can help unlock investments and drive a more resilient and sustainable future.

AVINASH PERSAUD

SPECIAL ADVISOR TO THE PRESIDENT, IDB

Transition finance has no shortage of ideas, but few with scale, breadth or bite. SB COP delivers: leveraging existing assets to scale renewables, building a model for hard-to-abate sectors from the IMO agreement, and making carbon markets operable cross-border ahead of CBAM and its imitators.

EDUARDO MUFAREJ

CO-CHIEF INVESTMENT, JUST CLIMATE

SBCOP is an essential space for Brazil to contribute meaningfully to the global climate agenda. At COP30, its role will be to bring together diverse sectors and give legitimacy to our proposals. I believe this mobilization amplifies the country's voice and paves the way for real commitments. As a Brazilian, I see in SB COP an opportunity to turn ambition into action.

HENDRICK DU TOIT

CEO, NINETY ONE

At Ninety One, we back transition finance. We've advanced commercial strategies to invest in the transition in emerging markets, where others hesitate. Yet this is where climate impact meets return. Transition finance can unlock growth, resilience, and innovation—mobilizing capital that builds a sustainable, inclusive future while rewarding those bold enough to lead.

JOAQUIM LEVY

BANCO SAFRA, CHAIR OF THE ADVISORY BOARD OF GFANZ BRAZIL, FORMER MINISTER OF FINANCE AND HEAD OF BNDES

SB COP finance cases show the diversity of climate finance, from banking regulation to transactions in support of projects conducted by traditional people. All require ingenuity, tenacity and partnerships. They reflect that climate and development finance will depend more on access to global product markets than on international aid. Progress in implementing a global carbon market and mandatory sustainable accounting (IRFS1-2) would be a major outcome of COP30.

KAREN FANG

MANAGING DIRECTOR, GLOBAL HEAD OF INFRASTRUCTURE & SUSTAINABLE FINANCE, BANK OF AMERICA

We are honored to co-chair the SB COP Transition Finance & Investment Taskforce as its work is vital to scale capital for emerging and developing economies particularly through blended finance structures that combine public and private resources to de-risk investments and catalyze sustainable development. Standardization of transaction templates is the critical enabler as it increases replicability, reduces time to market and transaction costs, and builds investor confidence.

NILI GILBERT

VICE CHAIRWOMAN, CARBON DIRECT

Climate action is essential to our shared prosperity, and finance plays an indispensable role in enabling it. Our group has focused on innovative approaches to overcome funding gaps, especially in EMDCs and hard-to-abate sectors, where they are mostly needed. The case studies our working group highlight show how transactions can turn ideas into action. As we look ahead to COP30 and beyond, scaling these solutions will be key to channel capital at the speed and scale the world needs.

EXECUTIVE SUMMARY

The Sustainable Business COP (SB COP) Transition Finance & Investment Working Group's (WG) priorities and proposed frameworks outline pathways to mobilize capital, reinforce market integrity, and accelerate the global climate transition. Together, these practical solutions are designed to inspire collaboration and deliver impact at scale.

Priority 1: Scale solutions that address high capital costs and political, regulatory and FX risks deterring private investment in Emerging Markets and Developing Countries (EMDCs), to attract private capital and achieve the goal of US$ 2.3-2.5 trillion climate investment needed per year through 2030 in EMDCs

Enabling action 1 [Debt]: *Release local commercial bank balance sheets by securitizing seasoned, high-performing climate loans (e.g., renewables, resilient infrastructure, sustainable agriculture). A multilateral development bank (MDB) sponsored vehicle bundles them into diversified, investment-grade securities enhanced with FX, inflation, and political risk protections, attractive to mainstream institutional investors while recycling capital back into new climate lending*

Enabling action 2 [Equity]: *Establish a guarantee facility to mitigate macroeconomic and political risks in EMDCs, including foreign exchange volatility, inflation risk, transfer restrictions, convertibility, expropriation, and sovereign default. The facility would not protect against commercial project risks such as demand fluctuations, technology performance, cost overruns, or management execution. This ensures investors are shielded from systemic country-level risks while remaining accountable for standard project-level risks*

Enabling action 3 [Contract for Difference]: *Enable suppliers of sustainable products to achieve price competitiveness against established fossil-based alternatives, to increase supply chain resilience. Contracts for difference (CFDs) can provide a predictable revenue stream by de-risking investment, levelling the playing field and unlocking market entry, covering debt financing needs*

Enabling action 4 [Working Capital]: Scale up platforms that match account receivables and payables to provide liquidity to Small and Medium Enterprises (SMEs) implementing climate solutions, overcoming the cash flow mismatch between investment and return. These facilities ensure SMEs can invest in green technologies and supply chain upgrades

Priority 2: Advance on the convergence of global carbon markets as a key enabler for scaling cross-border climate finance. This includes advancing interoperability across Article 6 mechanisms, voluntary carbon markets (VCMs), and compliance systems — anchored in high-integrity standards, transparent infrastructure, and robust carbon accounting frameworks

Enabling action 1: *Promote practical implementation approaches for scaling high-integrity international carbon credit transactions, including Article 6 mechanisms, either through Mitigation Contribution Units (MCUs) or Article 6.4 Emission Reductions (A6.4ERs)*

Enabling action 2: Promote technical support to host countries in defining the conditions for engaging in Article 6, including in situations requiring corresponding adjustments (CA), while developing the tools, infrastructure and streamlined procedures needed to authorize, track and account for international transfers — reducing friction and building institutional readiness

Priority 3: Unlock capital flows to accelerate decarbonization in hard-to-abate sectors by leveraging global regulatory frameworks, such as the International Maritime Organization (IMO) Net-Zero and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), to scale sustainable fuel adoption, while channeling existing climate finance facilities and mobilizing targeted financial instruments to support their transition

Enabling action 1: *Promote policies, such as the IMO Net-Zero Framework, that reduce the price gap and enable the broad and technological agnostic acceptance of sustainable fuels to advance shipping decarbonization, supporting the deployment of compliant alternatives across regions and feedstock types*

Enabling action 2: *Promote acceptance and use of flexibility mechanisms that enable the decoupling of sustainability attributes from fuel supply physical operations, helping to reduce transaction costs, mitigate the price gap associated with sustainable aviation fuel (SAF) adoption, and accelerate capital deployment in the aviation sector*

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INTRODUCTION

INTRODUCTION

From a global perspective, the **transition to a net-zero, nature-positive, and resilient economy makes strong economic sense**. Accelerating this transition by just 1–2% annually could prevent 11–27% of global GDP losses by 2100[1], through both mitigation and adaptation measures. To achieve these benefits, a substantial and rapid scale-up of investments will be required across all countries.

The Third Report of the Independent High-Level Expert Group on Climate Finance estimates the global projected investment requirement for climate action at around US$6.3–6.7 trillion per year by 2030, of which US$2.7–2.8 trillion is in advanced economies, US$1.3-1.4 trillion in China, and US$2.3–2.5 trillion in Emerging Markets and Developing Countries other than China[2].

The largest increase in investment is required in EMDCs other than China, reaching 9-10 times more than 2022 values[3]. These regions currently have significant development needs and are projected to contribute over 50% of global emissions by 2030. Only US$300 billion has been committed via public channels, and international institutional capital remains largely absent. In this context mobilizing at least US$1 trillion a year of private capital for climate action in EMDCs by 2030 is a critical lever to drive global growth and sustainable development.

Beyond mitigation, investment in adaptation and resilience (A&R) must also grow substantially, particularly in vulnerable EMDCs where climate impacts are already compounding debt, displacing communities, and undermining growth. The global demand for A&R solutions is projected to reach US$500 billion to US$1.3 trillion by 2030[4].

1 BCG. **Why Investing in Climate Action Makes Economic Sense**, 2025. Available at: https://www.bcg.com/publications/2025/investing-in-climate-action. Accessed in: 27 June 2025

2 IHLEG. **Raising ambition and accelerating delivery of climate finance**, 2024. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/11/Raising-ambition-and-accelerating-delivery-of-climate-finance_Third-IHLEG-report.pdf. Accessed in: 27 June 2025

3 Climate Policy Initiative. **Global Landscape of Climate Finance**, 2023. Available at: https://www.climatepolicyinitiative.org/ publication/ global-landscape-of-climate-finance-2023/. Accessed in: 27 June 2025

4 BCG. R **The Private Equity Opportunity in Climate Adaptation and Resilience**. Available at: https://www.bcg.com/publications/2025/investment-opportunities-in-climate-a-and-r/, Accessed in: 30 July 2025

The volume of private capital in climate finance remains insufficient and must scale significantly. Moreover, it needs to be deployed effectively in the real-economy, particularly in high-cost-of-capital environments impacted by inflation, currency volatility, political and regulatory and political risks, such as EMDCs. Today, these regions drive over 60% of global growth yet international institutional investors only allocate 2% of their assets in these geographies.

In this context, the objective of the **SB COP Transition Finance & Investment Working Group is to connect key stakeholders, identify existing bottlenecks and co-develop clear frameworks that unlock transactions to accelerate climate mitigation and adaptation**.

To achieve this, the SB COP aims to:

- **Build on existing initiatives**, by:
  - Fostering continuity and leveraging relevant previous private sector recommendations, such as the 2024 B20 Finance & Infrastructure Policy Paper[5] and 2024 G20 Sustainable Finance Report[6];
  - Connecting with existing actors and initiatives working in climate and nature to learn from experience, enable collaboration and joint progress
- **Showcase real-world climate solutions** in mitigation, adaptation, and resilience to understand what works, what the barriers are, and how to overcome them to scale.
- **Break down the complex challenge of climate transition** – aiming to take a step forward in specific areas through a pragmatic approach, rather than attempting to cover all aspects of transition finance.
- **Prioritize action, learning from the detailed frameworks of instruments and transactions** that could bridge current gaps, and using resulting insights to promote implementation and/or define a clear path towards scalable climate transition actions.

In this context, this group has worked on Mitigation, Adaptation & Resilience, through the selection of cases. Moreover, it has developed blueprints and priorities within three themes:

5 B20 BRASIL. **Finance & Infrastructure Policy Paper**, 2024. Available at: https://b20brasil.org/finance-infrastructure. Accessed in: 27 June 2025

6 G20 BRASIL. G20 Sustainable Finance Report, 2024. Available at: https://g20sfwg.org/wp-content/uploads/2024/10/2024-G20-Sustainable-Finance-Report.pdf. Accessed in: 6 July 2025

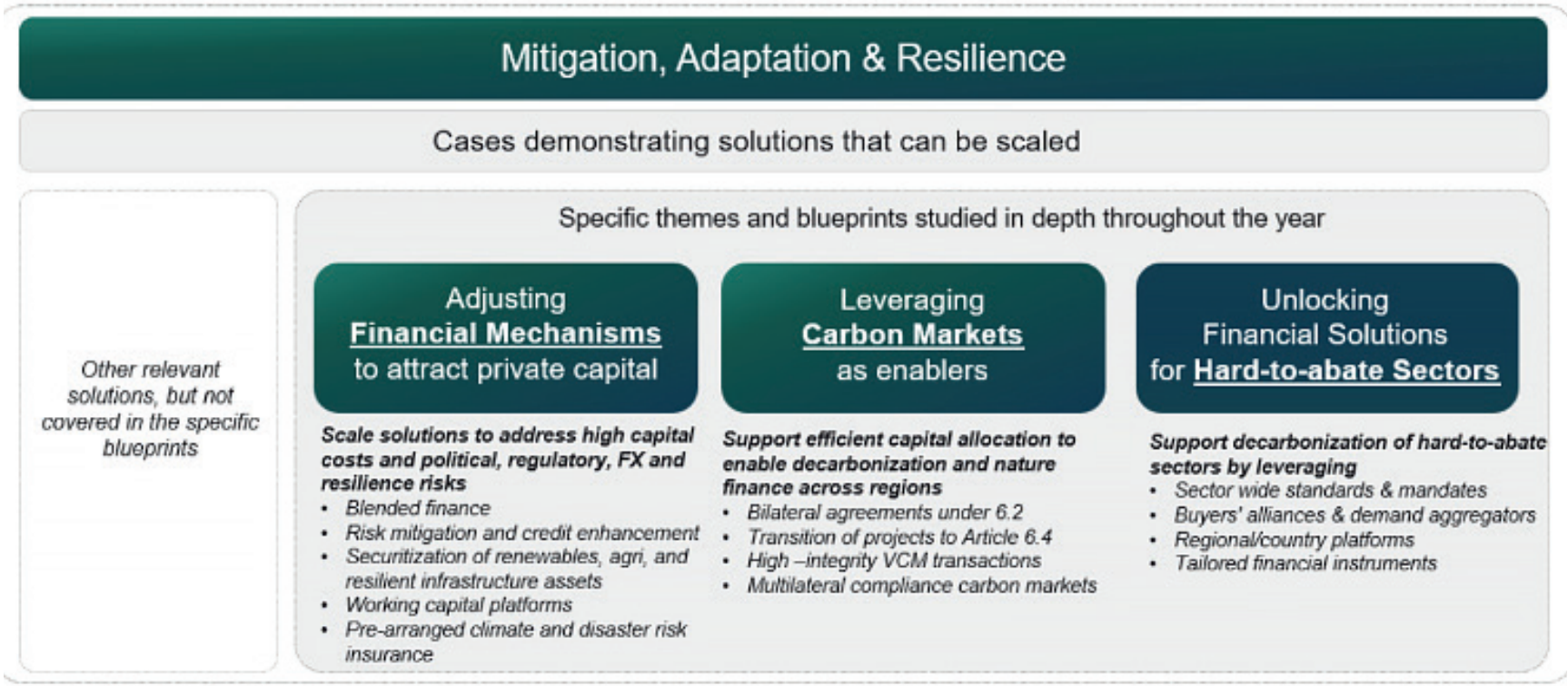
- **Financial Instruments** to address systemic blockers of private finance, including high cost of capital, lack of project pipelines, and risk factors specific to EMDCs.
- **Carbon Markets** to reduce abatement costs and support increasing ambitions by fostering capital allocation for decarbonization across regions.
- Financial solutions for **Hard-to-abate Sectors** – to unlock pipelines of bankable projects those sectors, especially shipping and aviation.

For each of those themes, our group has three deliverables:

- **Priorities** that lay out critical enablers to unlock private capital at scale, providing a direct, outcome-oriented input to inform COP30 agenda and guide public-private alignment.
- **Frameworks of instruments and transactions** to advance climate action.
- **A portfolio of private-sector cases** that showcase credible and scalable action consistent with our broader themes and identified priorities.

Sustainable finance is inherently transversal, therefore, the solutions presented in this document serve to finance the priority assets and value chains of other SB COP Working Groups: bioeconomy, energy transition, and nature-based solutions, for example.

FIGURE 1 - OUR THEMES



Sources: Transition Finance & Investment Working Group

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A. FINANCIAL MECHANISMS

A. 1 PRIORITY 1

Priority 1: Scale solutions to address high capital costs and lower political, regulatory and FX risks deterring private investment in EMDCs, to attract capital and achieve the goal of US$ 2.3-2.5 trillion climate investment needed per year through 2030 in EMDCs.

Enabling action 1 [Debt]: *Release local commercial bank balance sheets by securitizing seasoned, high-performing climate loans (e.g., renewables, resilient infrastructure, sustainable agriculture). An MDB-sponsored vehicle bundles them into diversified, investment-grade securities enhanced with FX, inflation, and political risk protections, attractive to mainstream institutional investors while recycling capital back into new climate lending.*

Enabling action 2 [Equity]: *Design a guarantee facility to mitigate macro-economic and political insurance risks in EMDCs without exempting investors to bear project risk (e.g., FX and inflation volatility), but leaving the investors with the commercial project risks.*

Enabling action 3 [Contract for Difference]: *Enable suppliers of sustainable products to achieve price competitiveness against established fossil-based alternatives, to increase supply chain resilience. CFDs can provide a predictable revenue stream by de-risking investment, levelling the playing field and unlocking market entry, covering debt financing needs.*

Enabling action 4 [Working Capital]: *Scale up platforms that match account receivables and payables to provide liquidity to SMEs implementing climate solutions, overcoming the cash flow mismatch between investment and return. These facilities ensure SMEs can invest in green technologies and supply chain upgrades.*

The working group aims to take a pragmatic approach by developing a suite of financial instruments, grounded in real-world challenges, and informed by case studies and member feedback.

Relevant KPIs

TABLE 1 - FINANCIAL MECHANISMS RELEVANT KPIS

Type	Key Performance Indicator (KPI)	Baseline 2025
Additional financing for EMDCs other than China from private sources[7]	Total US$ investment	US$ 150B
Commercial bank loans invested in renewable energy assets	Total US$ investment	US$ 50B

Context

EMDCs, excluding China, require US$ 2.3–2.5 trillion per year in climate investment through 2030 to stay on track with global climate goals[8]. These regions – projected to contribute over 50% of global emissions by 2030 – currently require a more than fourfold increase in investment levels from 2022. Without coordinated action, EMDCs will remain underfinanced and underprepared. Despite rising awareness, EMDCs attract only a fraction of global climate finance: for example, between 2019-23, EMDCs other than China accounted for only 8% of the increase in low-carbon energy investment from 2019 to 2023, while just 12% of mitigation finance went to EMDCs in 2022[9].

Systemic barriers prevent capital from reaching climate and nature projects in EMDCs.

- **High cost of capital**: The cost of capital for low-carbon energy projects in EMDCs is significantly higher than in advanced economies. For solar PV in 2022, it was 9-12% in EMDCs versus 5-6% in advanced economies, and in some low-income countries, it can be five times higher[10]. Low-carbon energy investments are capital-intensive and heavily debt-financed (up to 75%), making the cost of capital a major determinant of viability.

7 IHLEG. **Raising ambition and accelerating delivery of climate finance**, 2024. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/11/Raising-ambition-and-accelerating-delivery-of-climate-finance_Third-IHLEG-report.pdf. Accessed in: 27 June 2025

8 *Ibid.*

9 G20, 2024 **G20 Sustainable Finance Report**, 2024. Accessible at: https://g20sfwg.org/wp-content/uploads/2024/10/2024-G20-Sustainable-Finance-Report.pdf

10 IEA, **Reducing the cost of capital**, 2024. Accessible at: Ihttps://iea.blob.core.windows.net/assets/227da10f-c527-406d-b94f-dbaa38ae9abb/ReducingtheCostofCapital.pdf

- **Risk perceptions and premiums**: Investors demand high risk premiums due to macroeconomic risks, such as sovereign default, political instability, currency volatility, and project-specific risks, including regulatory uncertainty, and off-taker reliability. Required returns reflect this, with average cost of debt at 6% in advanced economies against 21% in EMDCs, and required equity returns at 12% against 27%[11]. Most institutional capital is restricted to investment-grade, hard currency assets, while many EMDC climate projects are unpermitted, unrated, and in local currency, which blocks direct access to mainstream capital markets.
- **Lack of supply of bankable projects**: Early-stage firms and projects require significant investment at the early stages of development. Without risk-bearing capital in these stages, they are unable to grow. Dedicating resources to create robust project preparation facilities in local currencies and provide early-stage equity supports projects and businesses and contributes to a stronger pipeline of investment ready opportunities. Such facilities should be paired with capacity-building on the investor side to ensure investment opportunities are evaluated appropriately[12].
- **Insufficient private capital mobilization**: Only US$ 15 billion in private climate finance reached EMDCs in 2021-22, less than 5% of what is needed[13]. International investors have low allocations to EMDCs, while domestic private investment represents under 1% of the total, hindered by policy gaps and capacity constraints.
- **Regulatory and financial system barriers**: FX risks deter international investment due to local currency revenues and dollar-based financing. Solvency II and other prudential regulations penalize investment in non-OECD countries by requiring higher capital buffers. Finally, credit rating agencies do not give credit for MDB's preferred creditor status or privileges and immunities, inflating perceived risks.

The result is that many high-quality, potentially high-impact projects in EMDCs do not get financed, or are delayed or downsized. To address these constraints, timely and coordinated action is required.

11 IHLEG. **The State of Delivery**, 2024. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/11/IHLEG-State_of_Delivery_Executive_Summary.pdf

12 Blended Finance Taskforce. **Domestic Resource Mobilization** (2024). https://static1.squarespace.com/static/5acdc066c258b4bd2d15050b/t/6662f35a9f4e88581ccc8bf8/1717760874071/Action+Agenda+-+Mobilising+Domest+Capital+to+Drive+Climate-Positive+Growth+vDigital.pdf

13 Climate Policy Initiative, **Global Landscape of Climate Finance**, 2024. Accessible at: https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2024/

- **Strengthen risk mitigation and credit enhancement**: Blended finance and de-risking tools (e.g. guarantees, first-loss equity, FX hedging) can reduce investor risk premiums. Beyond individual instruments, large-scale facilities could be considered to achieve scale. For example, a guarantee facility, backed by developed country governments, could mobilize 5-6x more private finance than traditional MDB/DFI (development finance institution) loans[14], without requiring host government guarantees. Such a mechanism would channel private capital into projects, vehicles, or bonds while meeting high environmental and social standards and prioritize transactions investable for local institutions.
- **Develop pipeline and early-stage support**: Public-private collaboration on sectoral investment plans, nationally determined contribution (NDC) linked pipelines, and country platforms can increase project preparation funding and make projects more investable especially during the Front-End Engineering Design (FEED) phase, where risks remain high while costs escalate compared to earlier development stages.
- **Reform capital markets and institutional investment structures**: There is a need for scalable products. For example, MDBs and DFIs can partner with local banks and aggregate projects to access capital markets. Securitization into investment-grade portfolios – especially of existing, performing EMDC loans – can attract pension and insurance funds by creating the investable products they are mandated to buy.
- **Mobilizing domestic capital**: shifting domestic financial systems to prioritize green finance by building partnerships between local and international banks[15], drawing on models like India's to mobilize domestic private capital, and promoting catalytic vehicles like Alterra, Pentagreen and Climate Investor One to attract institutional investment in EMDCs.
- **Strengthen financial resilience through pre-arranged instruments**: Insurance, sovereign risk pools, and parametric coverage can enhance fiscal stability, enabling faster recovery and attracting capital for adaptation. Climate finance frameworks could also systematically incorporate adaptation and resilience investments, particularly in sectors such as water, agriculture, and coastal protection where private capital is scarce but public benefit is high.

14 Blended Finance Taskforce. Better Finance, Better Guarantees, 2023. Available at: https://www.systemiq.earth/wp-content/uploads/2023/06/Blended-Finance-Taskforce-2023-Better-Guarantees-Better-Finance-1.pdf

15 Blended Finance Taskforce & FSD Africa, Mobilising domestic capital for climate-positive growth, 2023. Available at: https://www.blendedfinance.earth/domestic-capital-mobilisation

A. 2 PROPOSED FRAMEWORKS

The *Financing Mechanisms* pillar aims to scale proven financial solutions to address systemic barriers, reduce macro-level risks, and crowd in private capital. It has looked at its priorities end-to-end from source of funds, revenue streams and flow of funds: therefore, spanning debt, equity, contracts for difference, and working capital.

[A] Debt - Securitization of climate and nature

Objective

The core objective is to release large-scale flows of institutional capital from developed markets into renewable energy, sustainable agriculture and resilient infrastructure assets across EMDCs, optimizing the balance sheets of local commercial banks. Today, many seasoned, high-performing renewable energy and sustainable agriculture loans — already permitted, constructed, and servicing deb — remain illiquid, trapped on commercial bank balance sheets due to capital constraints. Multilateral Development Banks (MDBs) could play a catalytic role by sponsoring a securitization vehicle, conditional on commitments by banks to channel freed-up capital into further climate-aligned lending aligned with NDCs. With the support of a structuring partner, these assets can be bundled into diversified green securitization vehicles spanning borders, sectors, and currencies, transforming illiquid, locally originated EMDC loans into investable securities for global institutional investors, mitigating concentration risk and boosting scale[16].

To attract mainstream institutional investors, the securitization would be structured to investment grade, enhanced with targeted credit mechanisms such as: inflation-linking (to mitigate FX risk tied to local-currency PPAs[17]), real exchange rate hedges, political risk insurance, and subordinated or guarantee tranches. By transforming illiquid assets into investable securities, the mechanism aims to:

16 World Bank (2025). *Innovative finance – How securitization tools can mobilize private capital for climate finance*, Available at: https://blogs.worldbank.org/en/psd/securitization-tools-can-mobilize-private-capital-for-climate-fi Accessed 30 June 2025.

17 PPA: Power Purchase Agreement

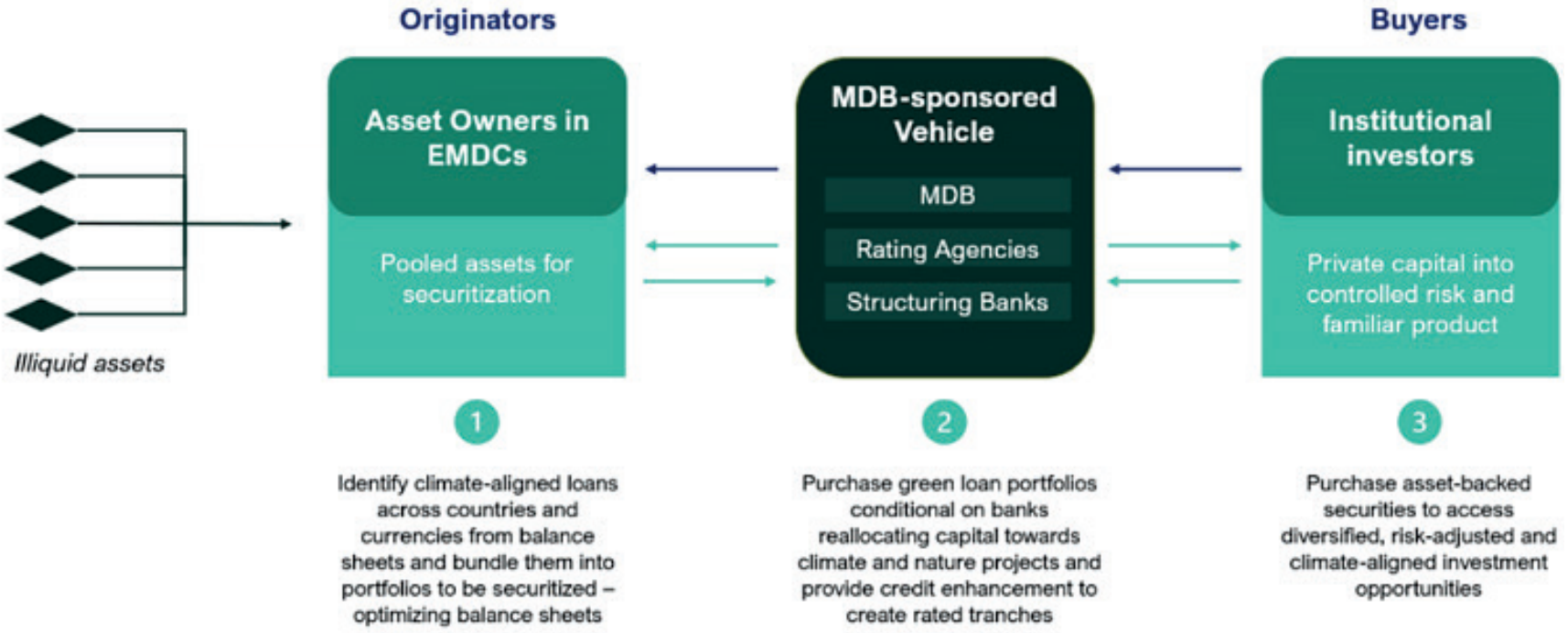
- Recycle capital into new climate lending, particularly for renewable energy, sustainable agriculture, and resilient infrastructure, by linking securitization proceeds to new loans aligned with national plans and NDCs.
- Enhance liquidity in climate finance markets and reduce balance sheet pressure on originators.
- Mobilize institutional capital at scale by offering standardized, risk-adjusted, and sustainable products.
- Build a repeatable, revolving securitization platform tailored for emerging markets, aligned with the capital mobilization goals of the Paris Agreement.
- Catalyze a shift in the climate finance ecosystem, from bilateral loan disbursements to broader market-based instruments capable of crowding in private capital.

Strategic approach

- **Adapt proven securitization models**: Build on global lessons from collateralized loan obligation (CLOs), infrastructure, and green asset-back securities (ABS) platforms, tailoring them to climate loan portfolios in EMDCs with additional layers of risk mitigation (FX, inflation, political).
- **Mobilize institutional and multilateral capital**: Combine MDB balance sheet capacity, structuring banks, and institutional investors to create de-risked, investment-grade securities that match mainstream mandates (e.g., BBB credit rating, hard currency, market-competitive yield, approximately 7.5%).
- **Enable revolving capital recycling for climate impact**: Free up bank balance sheets by purchasing and securitizing seasoned performing loans (e.g. renewable energy projects yielding 9%). Reinvest sales proceeds into new portfolios, creating a repeatable loop that continually channels capital into NDC-aligned assets.
- **Create a conduit between institutional capital and EMDC project pipelines**: by securitizing existing, permitted, performing loans and recycling proceeds into new NDC-aligned lending.
- **Promote cross-border interoperability**: To scale securitization across EMDCs, efforts must align with emerging regional taxonomies and ensure that green and climate-aligned assets are recognized consistently across jurisdictions. Interoperable standards, such as those under development in the Association of Southeast Asian Nations (ASEAN), are critical to enable cross-border transactions, investor confidence, and portfolio aggregation for adaptation, mitigation, and resilience.

PROPOSED FRAMEWORK

FIGURE 1 - PROPOSED FRAMEWORK FOR THE DEBT MECHANISM



Sources: Finance and Investment Working Group

Rationale for each actor

- **Originators (Commercial banks)**: Release capital tied up in seasoned, high-performing climate loans – sold at par or premium, with originators retaining a skim via servicing fees or excess spread – freeing balance sheets for new climate lending without increasing leverage, provided new loans align with national plans and are eligible for future securitizations, creating a virtuous cycle.
- **Multilateral Development Bank (MDB)**: Purchases assets, anchors the structure, and provides credibility. MDB involvement de-risks the securitization while enforcing conditionality that banks reinvest proceeds into NDC-aligned projects.
- **Structuring bank**: Designs the securitization, undertakes due diligence, overlays credit enhancements (hedges, guarantees), and aligns securities with institutional investor requirements. Gains include fees and long-term platform involvement.
- **Institutional investors**: Gain access to a diversified, investment-grade, climate-aligned asset class with inflation-linked revenues, FX risk management, and political risk insurance. Attractive diversification, yield, and sustainability alignment, suitable for pensions, insurers, and impact funds.
- **Rating agencies**: Provide independent assessment of portfolio risk, trenching, and credit enhancement, enabling investor confidence and eligibility within institutional portfolios.
- **Philanthropy**: Can support early-stage design, particularly macro-risk guarantee facilities, risk modeling, and convening actors. By funding pilots in high-risk geographies, philanthropy accelerates validation and crowding-in of institutional capital.

[B] Equity – Design a facility to mitigate macro-economic risks in EMDCs without exempting investors to bear project risk (e.g., FX and inflation volatility)

Objective

In EMDCs, equity investors face heightened macroeconomic and political risks that distort expected returns and crowd out long-term capital. Volatile exchange rates, high inflation, and transfer restrictions can erase gains even where projects are commercially sound. The mechanism aims

to provide partial guarantees against these systemic risks — especially FX and inflation volatility — while preserving exposure to commercial project risks, thereby enabling equity flows at scale into climate and nature solutions.

Strategic approach

- **Establish a guarantee facility**: capitalized with concessional or catalytic capital, dedicated to covering macroeconomic and political risks (FX volatility, inflation shocks, convertibility, transfer restrictions, expropriation, sovereign default).
- **Structure instruments** through financial institutions that can offer two complementary risk-mitigation features:
  - FX and inflation coverage for foreign equity investors, delivered outside the fund structure, directly to investors.
  - Performance enhancement mechanisms (e.g., catalytic capital tranche or subordinated class) within the fund or via loans, to partially absorb downside risks.
- **Require participating financial institutions** to package both forms of incentive in order to access catalytic capital.
- **Ensure alignment with country investment platforms** and crowd-in private sector participation at scale.

Rationale for each actor

- **Public finance providers (MDBs, DFIs, donors)**: Supply catalytic capital and guarantees to de-risk systemic macroeconomic exposure; leverage public funds to mobilize multiples of private equity.
- **Banks and financial institutions**: Channel concessional resources into structured risk-mitigation products; act as counterparties offering FX hedges and performance protection.
- **Investors (institutional, private equity, corporates)**: Gain confidence to deploy equity capital in EMDCs by reducing exposure to systemic macroeconomic shocks while retaining project-level discipline.
- **Funds and asset managers**: Integrate risk-mitigation mechanisms into fund structures, broaden investor base, and scale capital flows into priority sectors.

- **Companies/project developers**: Benefit from improved access to long-term equity investment and reduced cost of capital, enabling faster project development and expansion.

[C] Contracts for Difference (CFD) to support first of kind technology deployments

Objective

Many developers of emerging climate and nature products face a unique challenge: while their cash costs for production may already be competitive versus incumbents, the substantial upfront capital investment required to build out production capacity often requires significant debt financing. CFDs can help suppliers overcome these high capital costs: in markets with low willingness to pay a green premium, they provide price certainty, de-risk investment, and enable debt financing[18], allowing sustainable products to compete with fossil-based alternatives and accelerate market entry.

Strategic approach

Deploy **CFD mechanisms selectively in high-emissions sectors** (e.g., fertilizer, cement, fuels) where:

- There is a **high CAPEX to deploy** a new plant to produce greener version versus incumbent (e.g., new SAF plant);
- **Debt financing is constrained** by uncertain revenue forecasts;
- Market **willingness to pay** a green premium is **currently low**.

While CFDs are often used in merchant markets, they can also **complement structured offtake contracts**. In hybrid arrangements, where only part of production is under contract, CFDs provide a price floor for uncontracted volumes or index-linked components[19], enhancing revenue uncertainty and enabling debt financing. This makes them especially useful in sectors **where full offtake contracts are rare or insufficient** to secure long-tenor capital.

18 Oxford Institute for Energy Studies, Contracts for difference – CfDs – in the energy transition: balancing market efficiency and risk mitigation, 2024. Accessible at: https://www.oxfordenergy.org/wpcms/wp-content/uploads/2024/07/EL56-Contracts-for-difference-CfDs-in-the-energy-transition-Revised-version-clean-002.pdf

19 Ibid: https://www.oxfordenergy.org/wpcms/wp-content/uploads/2024/07/EL56-Contracts-for-difference-CfDs-in-the-energy-transition-Revised-version-clean-002.pdf

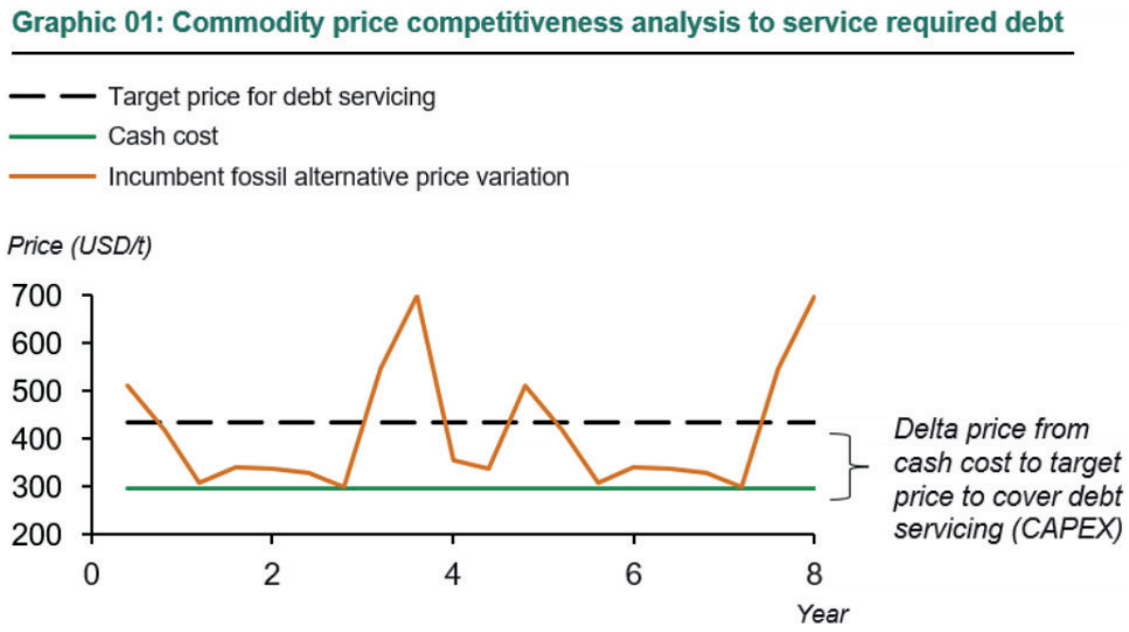
The concept involves creating a **fund with sufficient liquidity to provide temporary price support for climate and nature projects**, offering predictable cash flow that improves bankability, unlocks private debt, and accelerates first-mover entry. The fund steps in when market prices fall below the level needed for projects to remain viable, covering the gap (i.e., fossil incumbent prices are lower than minimum threshold to sustain operations), and is reimbursed when market conditions improve. To ensure sustainability, the fund earns interest on deployed concessional capital, collects an access fee when support is requested, and receives principal repayments when the project services its debt. This enables capital recycling across multiple projects and reduces long-term reliance on concessional funding.

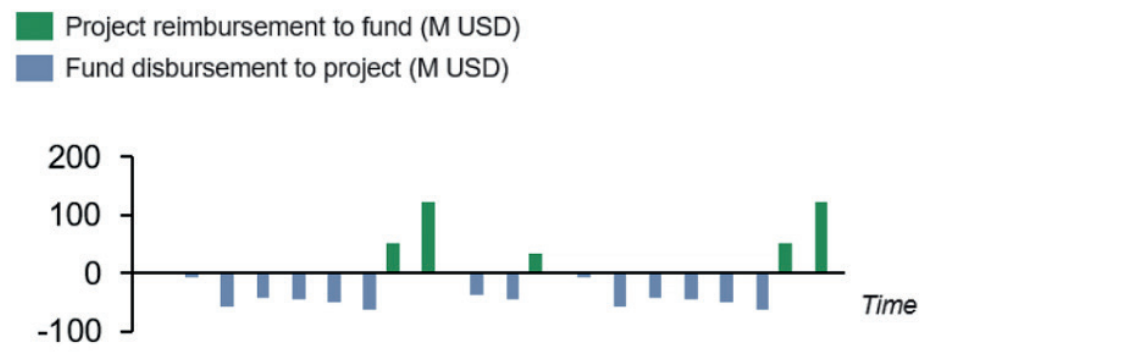
Key design elements to consider include:

- Equity-to-debt ratios to leverage private capital efficiently.
- Tenors ranging from 5 to 20 years, tailored to the sector's capital cycle.
- An access fee paid only when the supplier activates CFD coverage.
- A fund interest rate modeled at reflecting concessional but disciplined capital use.
- Protection limits as a percentage of the price variation to be covered.

Proposed framework

Figure 3 - Commodity price competitiveness to service required debt (above) and capital flows to/from guarantee fund to cover gap to target (below)





Source: Industrial Transition Accelerator, Mission Possible Partnership

Rationale for each actor

- **Project developers**: CFDs help developers secure long-term, affordable financing by stabilizing cash flows, either by covering merchant exposure or by backstopping price risk in hybrid offtake models. In cases where full PPAs are not available or are partially indexed, CFDs can provide supplemental revenue certainty. Since support is repaid when prices improve, the mechanism acts as a temporary bridge to bankability, reducing concessional dependence.

- **Lenders**: By reducing revenue volatility, CFDs improve debt service coverage and creditworthiness. This allows banks to finance projects in hard-to-abate sectors with longer tenors and lower risk, making innovative low-carbon technologies bankable.
- **Institutional investors**: CFDs de-risk early project stages, making it easier for investors to enter previously uncertain sectors. As projects stabilize, investors gain from more predictable returns while meeting sustainability objectives.

[D] Working capital: Early payment platforms to match accounts receivables and payables, and address liquidity constraints

Objective

Companies, especially SMEs, are central to climate action in EMDCs, often driving supply chain decarbonization and delivering last-mile sustainability outcomes[20]. Yet, they face a persistent liquidity trap: climate investments, such as equipment upgrades or renewable energy installations, require upfront capital, while revenues are delayed by long payment cycles (30-90+ days). This working capital gap stalls action, especially in markets where SMEs operate with razor-thin margins and limited access to affordable credit.

Early payment platforms can serve as essential financial infrastructure to unlock liquidity for climate-aligned companies, and especially SMEs. By accelerating cash flow against verified invoices, matching accounts receivables and payables, these platforms bridge the timing mismatch between investment and return, enabling SMEs to make changes without waiting for delayed payments. Embedding early payment solutions within climate finance frameworks can rapidly enhance execution capacity across supply chains.

Strategic approach

- **Scale proven models**: Build on successful early payment platforms already operating in markets like India, Nigeria, and Mexico, where there is demand and suitability for replication. Adapt these models across regions that fit necessary conditions to expand access for climate-relevant companies and especially SMEs.

20 B20 Brasil (2024): *Funding Sustainability Efforts: From Aspirations to Concrete Mechanism and Set Milestones*, Accessible at: https://www.businessatoecd.org/hubfs/Funding%20Sustainability%20Efforts%20Joint%20Business%20at%20OECD-B20-IOE%20Paper%202024.pdf

- **Channel capital to climate-aligned companies**: Embed early payment solutions into climate finance programs, especially those targeting supply chain decarbonization, to ensure that working capital flows to businesses delivering emissions reductions.
- **Enable last-mile climate delivery**: Use early payment infrastructure to unlock liquidity for SMEs in key sectors like agriculture, manufacturing, logistics, and retail, where fast, flexible finance is critical for on-the-ground climate action.

This approach bridges the mismatch between upfront investment (e.g., for low-carbon technologies or efficiency upgrades) and delayed revenue due to long payment cycles. By embedding early payment mechanisms within broader climate finance programs, particularly those focused on supply chain decarbonization, this strategy can enable rapid, decentralized deployment of capital where it's needed most. Proven in markets like India, Kenya, and Brazil, early payment solutions have demonstrated their ability to serve as transactional infrastructure for last-mile climate delivery. When scaled, these platforms have unlocked liquidity for SMEs in sectors such as agriculture, manufacturing, logistics, and retail, where small suppliers are critical to low-carbon outcomes but operate on thin margins and delayed cash flows.

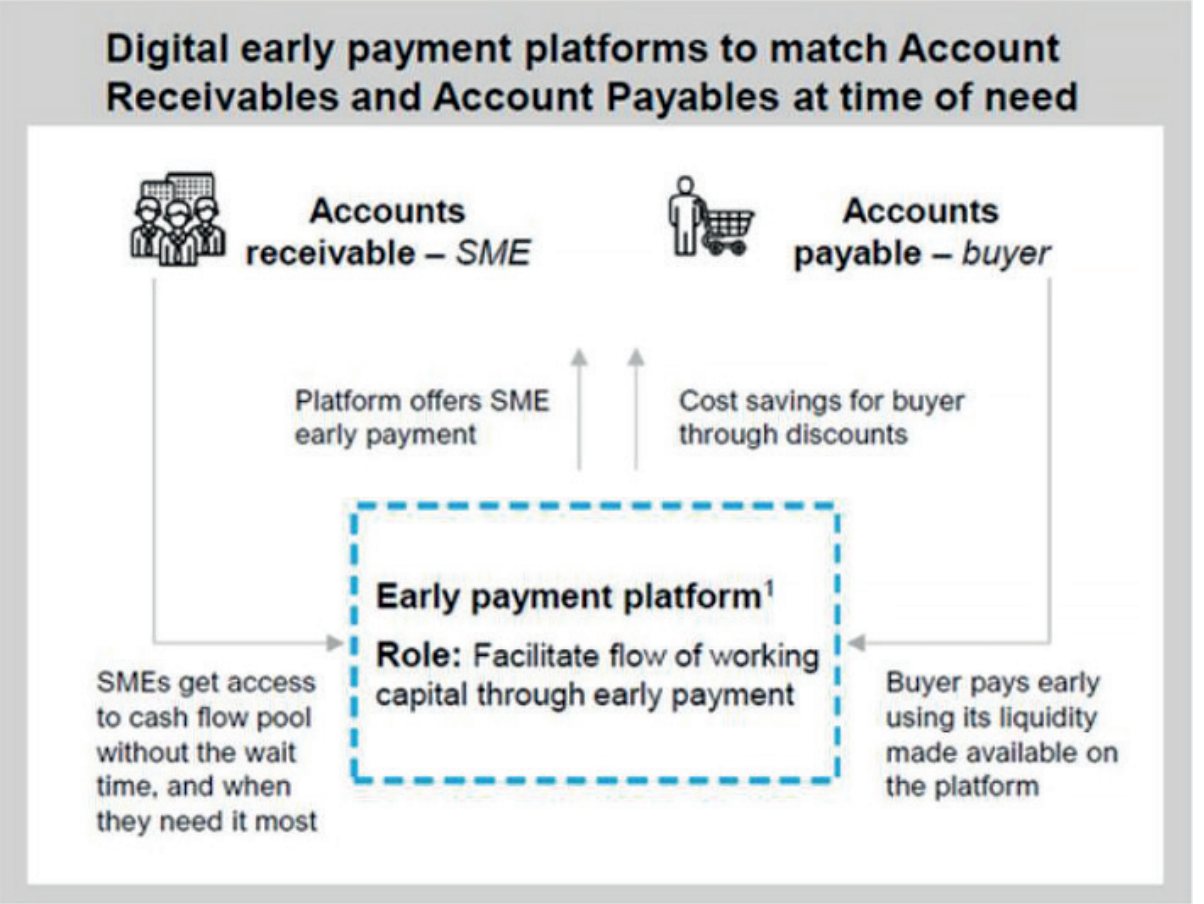
Companies of all sizes that demonstrate **strong financial stability**, fulfil their commitments, and invest in growth play a vital role in **creating jobs** and **driving economic growth**. Advantages of effectively managing cash extend beyond financing, benefiting the entire economy in that it not only builds greater resilience but also **enables businesses to self-fund progress**, **invest in comprehensive transitioning initiatives**, and **enhance their capital return ratios**.

Working capital platforms, on a national scale, can **generate increases in GDP of more than 1%**. A study started in 2022 by C2FO, on the improvements of working capital on GDP shows compelling and consistent results: in a large country like Mexico, the research shows the use of such a platform can contribute to unlocking up to 1.1% of GDP band up to 1.3% employment growth. In a small country like the United Arab Emirates, these can go up to 3% and 5%, respectively[21].

21 BUSINESS AT OECD & IOE. *Implementing Funding Platforms: A Solution to Fragmentation*. Available at: https://www.businessatoecd.org/hubfs/B20-Business%20at%20OECD-%20IOE%20Implementing%20Funding%20Platforms%20Paper.pdf

Proposed framework

Figure 4 - WORKING CAPITAL SOLUTION



Source: Finance and Investment working group, B20 Brasil (2024): Funding Sustainability Efforts: From Aspirations to Concrete Mechanism and Set Milestones

Rationale for each actor

- **Large companies and SMEs**: Assess demand then get faster access to cash, helping them invest in climate upgrades without waiting for delayed payments. This improves liquidity and reduces reliance on costly loans.
- **Anchor buyers / corporates**: Strengthen supply chain performance and support decarbonization goals. Offering early payment boosts supplier stability with no added cost if managed via third parties.

B. CARBON MARKETS

B. 1 PRIORITY 2

Priority 2: Advance on the convergence of global carbon markets as a key enabler for scaling cross-border climate finance. This includes advancing interoperability across Article 6 mechanisms, voluntary carbon markets (VCMs), and compliance systems — anchored in high-integrity standards, transparent infrastructure, and robust carbon accounting frameworks

***Enabling action 1**: Promote practical implementation approaches for scaling high-integrity international carbon credit transactions, including Article 6 mechanisms, either through Mitigation Contribution Units or A6.4ERs.*

***Enabling action 2**: Promote technical support to host countries in defining the conditions for engaging in Article 6, including in situations requiring corresponding adjustments, while developing the tools, infrastructure and streamlined procedures needed to authorize, track and account for international transfers — reducing friction and building institutional readiness.*

RELEVANT KPIS

TABLE 2 - CARBON MARKETS RELEVANT KPIS

Type	KPI	Baseline
Emissions trading systems (ETS) and carbon taxes	Revenue raised	US$ ~100 billion[22]
Emissions trading systems and carbon taxes	Global emissions covered by a direct carbon price	~28% of global emissions
Voluntary markets (VCM)	Capital flow in VCMs	US$ 723 million (2023), down from US$ 1.87 billion in 2022[23]
Article 6	Capital flow in Article 6 transactions	Not yet significant — pilot activity ongoing

22 WORLD BANK. State and Trends of Carbon Pricing 20254. Washington, DC, 2024. Available at: https://www.worldbank.org/en/publication/state-and-trends-of-carbon pricinghttps://openknowledge.worldbank.org/entities/publication/b0d66765-299c-4fb8-921f-61f6bb979087. Accessed on: 27 Jun. 2025.

23 WORLD BANK. State and Trends of Carbon Pricing: International Carbon Markets 2024. Washington DC: World Bank, 2024. Available at: https://openknowledge.worldbank.org/handle/10986/42181. Accessed on: 27 Jun 2025.

Context

Carbon markets offer a practical pathway to enable cross-borders climate finance flows at scale. By allowing carbon emissions to be reduced where they are most efficient, those markets unlock **net gains for all parties** — emitting countries reduce costs, while host countries access capital to finance high-impact mitigation. For example, reforestation projects in Brazil are **46% more cost-effective** than the global average[24], demonstrating the potential for geographically optimized abatement.

If carbon markets are implemented through a **cooperative global approach**, studies estimate that governments could **save up to US$250 billion per year by 2030** to meet their NDCs. Moreover, if this amount is reinvested in additional mitigation efforts, it is estimated that emissions could be reduced by **5 $GtCO_2eq$**. per year by 2030[25].

Over time, carbon markets will play a decisive role for both remaining and residual emissions[26]. In hard-to-abate sectors, carbon credits are vital especially for remaining emissions, enabling immediate mitigation while long-term decarbonization solutions are scaled. Regarding remaining emissions, IETA (International Emissions Trading Association) estimates that up to **16 Gt of CO_2 must be geologically stored by 2050**[27], underscoring the importance of carbon markets in financing and scaling durable removals.

While the promise is compelling, the current state of carbon markets is challenging.

Compliance carbon markets are expanding, but **fragmentation persists**. As of 2024, **80 carbon-tax and emissions-trading systems are in operation globally**, together **covering 28%**[28] of global emissions. Momentum is **no longer confined to advanced economies**, as middle-income countries — Brazil, India, and Türkiye among them — advance their own frameworks,

24 HIGH-LEVEL COMMISSION ON CARBON PRICES. Report of the High-Level Commission on Carbon Prices. 2017. Available at: https://academiccommons.columbia.edu/doi/10.7916/d8-w2nc-4103. Accessed on: 2 Sep. 2025

25 IETA – INTERNATIONAL EMISSIONS TRADING ASSOCIATION and Center for Global Sustainability (CGS). The Potential Role of Article 6 Compatible Carbon Markets in Reaching Net-Zero. 2021. Available at: https://www.ieta.org/initiatives/modelling-the-economic-benefits-of-article-6/. Accessed on: 27 Jun. 2025.

26 SCIENCE BASED TARGETS INITIATIVE (SBTi). Corporate Near-Term Criteria, Version 5.2. March 2024. Available at: https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf. Accessed on: 2 Jul. 2025.

27 IETA – INTERNATIONAL EMISSIONS TRADING ASSOCIATION. High-Level Criteria for Crediting Carbon Geostorage Activities. 2023. Available at: https://www.ieta.org/initiatives/high-level-criteria-for-carbon-geostorage-activities/. Accessed on: 2 Jul. 2025.

28 WORLD BANK. State and Trends of Carbon Pricing 2024. Washington, DC, 2024. Available at: https://openknowledge.worldbank.org/entities/publication/b0d66765-299c-4fb8-921f-61f6bb979087. Accessed on: 27 Jun. 2025

pointing to a broader wave of adoption — with an emissions coverage **projected to rise to nearly 30%** in the coming years. Still, these systems differ significantly in design — ranging in sectoral scope, offset eligibility and governance structures.

In parallel, VCMs have shown increasingly volatile behavior. After **peaking at approximately US$2.1 billion in 2021**, transaction volumes stabilized in 2022 but **fell below US$1 billion in 2023**[29]. This decline was largely driven by concerns over credit quality and project integrity, as well as the absence of a clear business case for companies. The lack of harmonized standards, transparent taxonomies, and integrated registries continue to constrain market growth and weaken investor confidence. A recent VCMI (Voluntary Carbon Market Integrity Initiative) study confirms that without clear, aligned and stable rules, businesses struggle to justify participation— highlighting the urgency of establishing enabling conditions for market expansion[30].

To address these structural challenges, stakeholders are increasingly **turning to international convergence pathways** capable of linking today's varied carbon-pricing regimes. In this context, the Paris Agreement's Article 6 creates a favorable and institutionalized context for convergence and can offer a **practical route to greater scalability, lower transition costs, and stronger environmental integrity**.

Article 6 recognizes that some Parties may choose to voluntarily cooperate with other Parties in the implementation of their NDCs, in order to enable higher ambition in their mitigation and adaptation actions. This cooperation may take different forms:

- **Article 6.2** enables bilateral or multilateral trading of mitigation outcomes.
- **Article 6.4** establishes a centralized mechanism.

In this context, the Transition Finance & Investment working group explores practical pathways for the convergence of carbon markets in support of Article 6 implementation.

29 ECOSYSTEM MARKETPLACE. State of the Voluntary Carbon Market 2022. Forest Trends, 2023. Available at: https://www.ecosystemmarketplace.com/publications/state-of-the-voluntary-carbon-market-report-2023/. Accessed on: 27 Jun. 2025.

30 VOLUNTARY CARBON MARKETS INTEGRITY INITIATIVE – VCMI. A Confident Carbon Market: Business Perspectives. Jul. 2025. Available at: https://vcmintegrity.org/. Accessed on: 4 set. 2025.

B.2 PROPOSED FRAMEWORK

Objective

To demonstrate the feasibility of carbon markets convergence by facilitating a portfolio of model private transactions — integrating enhanced transparency and robust methodologies — that can be prepared for formal recognition under Article 6 and may potentially be subject to corresponding adjustments. This would pave the way for greater scale and liquidity, attract additional market participants, and build bridges toward a high-integrity global carbon market.

Rather than attempting system-wide reform, this would be a pilot adopting a **practical use-case approach** — unlocking near-term capital, strengthening institutional capacity, and replicable infrastructure for future growth.

TYPOLOGY OF INTERNATIONAL CARBON CREDIT TRANSACTIONS

Cross-border carbon credit transactions can follow **multiple pathways** depending on the type of buyer, the type of seller, and the intended use of the credit. The table below outlines high-level **typologies of potential transaction structures** observed in international carbon markets.

TABLE 3 - TYPES OF INTERNATIONAL CARBON CREDIT TRANSACTIONS

Seller	Buyer	Use case	Market mechanism
Company	Company (voluntary use)	Decarbonization targets, offsetting outside compliance	Voluntary Carbon Market
Company	Company	Compliance systems or as voluntary contribution within the United Nations (UN) registry	Article 6.4
Government	Government	Bilateral exchange to meet NDCs	Article 6.42

In practice, **companies can also participate in Article 6.2 transactions** when the host government authorizes the transfer of credits. A recent example is Singapore's first Request for Proposals (2024): authorized **project developers may sell mitigation outcomes directly to the**

Government of Singapore, with credits applied toward the national NDC. Moreover, in cooperative approaches such as **Japan's Joint Crediting Mechanism (JCM)**, companies are the direct buyers of Article 6.2-authorized units for emissions trading system or other compliance purposes, even though the cooperation itself is structured government-to-government.

Strategic approach

- Leverage VCM, compliance carbon-pricing mechanisms, and Article 6 guidance — including likely future provisions already signaled by recent announcements.
- Focus on actionable steps that deliver measurable outcomes.
- Build a foundation for broader carbon market interoperability.

Proposed framework

The group committed to explore in detail two possible pathways under Article 6.4 — namely A6.4ERs and MCUs

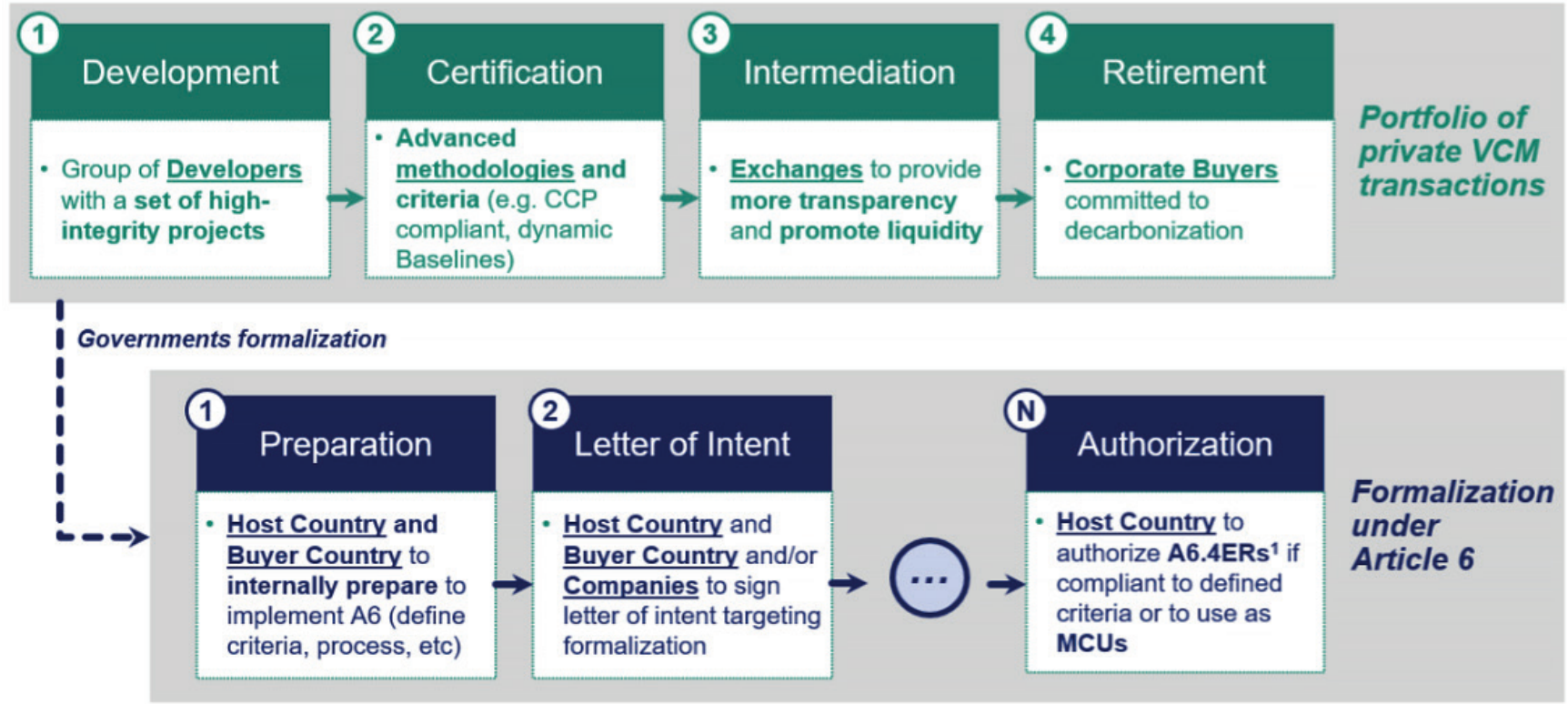
Rationale for each actor

- **Project developers**: Gain access to a broader pool of buyers and potential for higher-value deals. **Evidence**: Trade value in compliance markets is currently **around 100 times larger** than voluntary markets[31]. On top of that, according to an IETA survey, **83% of companies would pay higher than average rates** for correspondingly adjusted internationally transferred mitigation outcome (ITMOs), as well as for non-adjusted Article 6.4 MCUs[32].
- **Corporate buyers**: Engage in high-integrity transactions that are aligned with international frameworks. **Evidence**: Demand coalitions are forming around integrity. The **Symbiosis Coalition** (Google, Microsoft, Meta, Salesforce) has committed to finance **up to 20 $MtCO_2e$**

31 ICAP – INTERNATIONAL CARBON ACTION PARTNERSHIP. Emissions Trading Worldwide: 2024 ICAP Status Report. Berlim, 2024. Available at: https://icapcarbonaction.com/en/publications/emissions-trading-worldwide-2024-icap-status-report. Accessed on: 27 jun. 2025.

32 IETA. Article 6 in Action: Business Insights & Implementation Trends. 2023. Available at: https://www.ieta.org/uploads/wp-content/Resources/Reports/IETA_Resources_Report_A6-Pulse-Survey.V3.pdf. Accessed 4 Sep 2025.

FIGURE 5 - PROPOSED FRAMEWORK FOR CARBON MARKETS



Sources: Transition Finance & Investment Working Group

of nature-based solutions (NbS) by 2030[33]. In addition, the **Coalition to Grow Carbon Markets**, chaired by the governments of the United Kingdom, Kenya, and Singapore, brings together countries committed to advancing climate action supporting the scaling of credible business use of high-integrity carbon credits.

- **Buyer countries**: Expand access to cost-effective decarbonization options. **Evidence**: Governments are beginning to source Article 6 credits directly. **Singapore's first tender drew 17 offers and the trade ministry has already announced a second RFP for 2025**, signaling real sovereign demand for internationally transferable units[34].
- **Host countries**: Attract near-term investment at scale and position themselves as 'carbon sinks'. Beyond the financial dimension, these transactions can also generate co-benefits such as technology transfer, capacity building, improved land-use governance, local job creation, and sustainable development outcomes. Evidence: Estimates of up to **US$ 1 trillion per year** in international financial flows could be mobilized by 2050 to support emissions reduction and removal efforts, if countries broadly adopt Article 6 mechanisms[35].
- **Exchanges**: Capture first-mover fee and data revenues by enabling transparent, standardized cross-border trading. **Evidence**: Market infrastructure is advancing. **Xpansiv listed the first Core Carbon Principle-labelled spot contracts in July 2024, with ~40 000 tCO_2e traded in the first week**, showcasing new business lines driven by cross-border, high-integrity flows[36].

WHY CORRESPONDING ADJUSTMENTS

The pathway for A6.4ERs in the proposed framework implies the application of **corresponding adjustments**. Rather than altering a Party's

33 SYMBIOSIS COALITION. Launch Press Release: Google, Meta, Microsoft & Salesforce pledge to contract up to 20 Mt CO_2e of nature credits by 2030. 21 May 2024. Available at: https://www.symbiosiscoalition.org/perspectives/launch-press-release. Accessed on: 27 Jun 2025.

34 S&P GLOBAL COMMODITY INSIGHTS. Singapore to launch 2nd request for proposal in 2025 to procure Article 6 carbon credits. 6 Mar 2025. Available at: https://www.spglobal.com/commodity-insights/en/news-research/latest-news/energy-transition/030625-singapore-to-launch-2nd-request-for-proposal-in-2025-to-procure-article-6-carbon-credits. Accessed on: 27 Jun 2025

35 IETA – INTERNATIONAL EMISSIONS TRADING ASSOCIATION and Center for Global Sustainability (CGS). The Potential Role of Article 6 Compatible Carbon Markets in Reaching Net-Zero. 2021. Available at: https://www.ieta.org/initiatives/modelling-the-economic-benefits-of-article-6/. Accessed on: 27 Jun. 2025.

36 WORLD BANK. State and Trends of Carbon Pricing: International Carbon Markets 2024. Washington DC: World Bank, 2024. Available at: https://openknowledge.worldbank.org/handle/10986/42181. Accessed on: 27 Jun 2025.

greenhouse-gas (GHG) inventory, CAs are **bookkeeping entries** in the emissions balance used to track progress toward each NDC. When an internationally transferred unit is exported, the host country records a **negative** entry to its NDC balance, and the acquiring country records an **equal positive** entry. Under Article 6, CAs are required to **avoid double counting** when carbon credits are authorized as ITMOs toward countries' NDCs, or for other international mitigation purposes such as **CORSIA**.

Beyond A6.4ERs, corresponding adjustments **are also required in some other pathways, though not in all**. Their application depends on the specific framework governing each transaction, reflecting the Paris Agreement's principle of avoiding double counting while providing flexibility across different market designs.

TABLE 4 - OVERVIEW OF CREDIT TYPES AND REQUIREMENTS IN INTERNATIONAL TRANSFERS

Carbon Units in International Transactions	Requirements[37]
Article 6.2, ITMO transfer	• **CA required** • Host-country authorization letter • Methodology determined per bilateral agreement (provided it is transparently reported and consistent with the Paris Agreement framework) • National and UN registry (CARP)

Article 6.2, OIMP transfer (E.g., CORSIA[38]	• CA required
	• Host country authorization letter
	• In the case of CORSIA:
	  • o Emissions Units from ICAO[39]-approved programs
	  • CORSIA Central Registry (CCR)

Article 6.4, A6.4ER transfer	• CA required • Host-country authorization letter • CDM-updated methodologies and others on discussion • UN 6.4 registry; with a compulsory percentage of alternative investments
CDM[41] → PACM[42] (Article 6.4 migration)	• **CA required** for post-2020 units[43] • Host-country re-authorization • CDM-updated methodologies • Credits moved to UN 6.4 registry

37 UNFCCC – UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. Article 6 of the Paris Agreement. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement/article6. Accessed on: 27 Jun. 2025.

38 A host country may authorize ITMOs for "Other International Mitigation Purposes" (OIMP) beyond its own NDC. When it does — e.g., so the credit can be used in CORSIA or the voluntary market — it must apply a corresponding adjustment to its national inventory, preventing double counting and freeing the buyer to use the credit as intended.

39 ICAO: International Civil Aviation Organization

40 Every Article 6.4 issuance there is an investment of 5 % of the transfer for the Adaptation Fund, 2 % OMGE (global mitigation incentives) and administration fees for the first period of the credit

41 CDM: Clean Development Mechanism

42 PACM: Pre-Article 6.4 Certified Mechanism

43 The pre-2020 CDM credits were made before today's Paris-Agreement rules, so when they move into Article 6.4 they can be sold or used as-is — the host country doesn't have to record them against its climate target.

Article 6.4, MCUs transfer	• **CA not required** • No need for authorization • **May be authorized and require CA at a later stage**[44] • Methodologies and registry are not yet operational
VCM, Carbon credit use for voluntary purposes (e.g., VCU, GS-VER, CRT, etc.)[45]	• **CA not required** • No need for authorization • Verified methodologies (e.g., Verra, Gold Standard, ART) • Program registries (e.g., Verra, Gold Standard, ACR, CAR)

DEEP DIVE ON RATIONALE FOR HOST COUNTRIES

For a host country, engaging in ITMO exports should be grounded in evidence of additionality and NDC progress, via:

(i) a clear, evidence-based pathway for achieving its NDC and an expected **surplus** of emission reductions.

(ii) defined **high-value projects** (e.g., high-value technologies, removals, or reductions) with strong business cases for international sale.

Building on this foundation, many countries are implementing strategies to manage CAs in ways that preserve mitigation impact and align with national priorities[46], including:

(i) **Eligibility filters** that reserve CAs for high-cost/high-value activities while excluding lower-cost options needed domestically (e.g., Zambia's minimum ITMO price; Ghana's sector "green list").

(ii) **Credit-retention mechanisms** (buffers/issuance limits), such as Indonesia's 10–20% reserve and Paraguay's 3–10% government retention.

(iii) **Time-bound authorizations** (e.g., restricting ITMO issuance to initial years of project).

(iv) **Authorization fees** that channel value to domestic adaptation/climate funds (e.g., Kenya and Ghana).

(v) **Benefit-sharing requirements** that ensure revenues are equitably distributed, including to communities in land-based projects, as seen in Tanzania and Kenya.

44 MCUs may be authorized at a later stage, provided that they are not transferred into or out of the mechanism's registry

45 Unit names vary across VCM standards: e.g., VCU (Verra), GS-VER (Gold Standard), CRT (CAR), ERT (ACR), and TREES credit (ART)

46 THE NATURE CONSERVANCY. Article 6 Explainer. Avaliable at: https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_Article_6_Explainer.pdf. Accessed on: 26 Sep. 2025.

These measures allow host countries to retain control over mitigation outcomes, avoid overselling, and align international cooperation with domestic climate ambition.

When approached strategically, and in **alignment with the host country's priorities and fulfilment of its NDC**, the use of corresponding adjustments can act as **targeted instruments for unlocking foreign direct investment**, laying the groundwork for market infrastructure, catalyzing flows of capital, technology, and expertise that might not otherwise be mobilized through domestic channels alone. Over time, this can help create a multiplier effect and increase long-term ambition.

Net mitigation and development outcomes depend on how proceeds are used. When revenues and associated co-benefits are **reinvested** in lower-cost mitigation opportunities along the national marginal abatement cost curve, countries can deliver **more domestic reductions than were exported**. In sectors such as forestry, reinvestment can also yield institutional gains, such as stronger land-use governance and improved monitoring systems.

Guiding criteria for high-integrity pilot transactions to be developed under Article 6

Within the proposed framework presented in this document, the pilot project portfolio is expected to meet the following conditions:

TABLE 5 - CONDITIONS FOR TRANSACTIONS

Conditions	Description
Core Carbon Principles (CCPs)[47]	CCP-labelled methodology or under active assessment with a clear path toward recognition. The CCPs include principles such as: • **Governance**: Effective Governance; traceability; transparency; robust and independent third-party validation and verification • **Emissions impact**: Additionality; permanence; robust quantification of reductions and removals; No double counting • **Sustainable development**: sustainable development benefits and safeguards; contribution to the net-zero transition
Cross-border scope	Involves a transfer between two or more jurisdictions, contributing to the development of an internationally linked carbon market
Eligibility for regulated use	Eligible under Article 6, CORSIA, or other compliance systems that involve host country authorization

47 ICVCM – INTEGRITY COUNCIL FOR THE VOLUNTARY CARBON MARKET. Core Carbon Principles. Available at: https://icvcm.org/core-carbon-principles/. Accessed on: 7 Jul. 2025.

Methodological innovation	Applies dynamic baselines (where applicable) to better reflect actual emission performance
Registry-level traceability	Issuance and retirement occur in a public registry with unique serial numbers and complete project metadata
Paris alignment	Consistent with a mid-century net-zero trajectory and avoids lock-in of carbon-intensive technologies or infrastructure
High-integrity buyer[48]	Step-by-step process including; 1. Maintain and publicly disclose an annual greenhouse gas GHG inventory 2. Set and disclose near-term emission reduction targets aligned with science and net zero by 2050 3. Purchase and retire high-quality credits consistent with ICVCM Core Carbon Principles, transparently reporting information including host country authorization where applicable 4. Obtain independent third-party assurance of key metrics

Re.green's "Accelerating native forest restoration" case, implemented in Maranhão, Brazil, has restored **10,101 hectares in the Amazon and Atlantic Forest biomes**, generating **6.5M CRUs under VCS ARR (CDM & VM0047)**. The initiative is funded through a blended finance strategy: a Series A investment secured proof of concept; a pre-paid offtake agreement with an international buyer provided upfront capital for implementation; and concessional debt from the Brazilian Development Bank (BNDES) helped reduce the funding gap.[49]

Mombak's Project Turmalina covers **2,900 hectares within the Amazon biome**. The first carbon credit issuance is expected by late 2026, under the **VM0047 methodology**. The project's restoration plan includes **120 native species, 15 of which are classified as endangered**, contributing to biodiversity conservation. Project Turmalina is projected to generate approximately **70 direct jobs and 100 indirect jobs**, supporting local livelihoods. The project has also secured an international offtake agreement and financing through a blended structure that combines equity from the Amazon Reforestation Fund with debt from the BNDES Climate Fund and the World Bank Outcome Bond.[50]

NetZero, a French start-up operating in tropical regions, uses an innovative biochar approach to carbon removal that embodies multiple

48 VCMI – VOLUNTARY CARBON MARKETS INTEGRITY INITIATIVE. Claims Code of Practice. Available at: https://vcmintegrity.org/wp-content/uploads/2025/08/VCMI-Claims-Code_2025_Update.pdf. Accessed on: 26 Sep. 2025.

49 Re.green . Available at: https://re.green/. Accessed on: 30 September 2025. Available at Transition Finance & Investment WG Case Booklet.

50 Mombak . Available at: https://mombak.com/. Accessed on: 30 September 2025. Available at Transition Finance & Investment WG Case Booklet.

high-integrity criteria. Its projects are certified under the **ICROA**[51]**endorsed Puro.earth Standard**, a leading protocol for high-permanence engineered removals, and NetZero's policy is to sell credits only **to buyers with credible net-zero roadmaps**. [52]

Scenarios for implementation

As Article 6.4 mechanism moves toward operations — with CMA (Conference of the Parties serving as the meeting of the Parties to the Paris Agreement) decisions at COP29, additional standards and interim registry steps by the Supervisory Body in 2025, the transition of CDM projects, and full operationalization expected around 2026 —the emphasis shifts from design to execution. **Full implementation will take time, and other crediting pathways remain active**. Even so, **EMDCs are already moving into action under Article 6**: across Latin America and the Caribbean (LAC), **22 countries have established Designated National Authorities (DNAs)**[53] . The immediate task is to position high-integrity carbon markets as a lever for broader development outcomes. By aligning implementation with NDC 3.0, countries can use Article 6 to attract climate investment, accelerate industrial decarbonization, promote sustainable land use, and support restoration targets, turning carbon markets into a practical tool for both financing and sustainable development.

Carbon markets should be seen as a tool to **enable economic transformation**, not as an end in themselves. **Interoperability between VCM standards and compliance regimes**, underpinned by **high-integrity MRV (monitoring, reporting**, and verification) and transparent registries, creates the conditions to connect domestic supply with global demand. Recent signals — **sovereign Article 6.2 tenders, emerging demand coalitions, and recognition of international credits in major jurisdictions** — demonstrate how **integration between Article 6 and the VCM** can underpin credible markets, build investor confidence, and channel resources toward national priorities in energy, land use, and industrial transitions.

51 ICROA: International Carbon Reduction and Offset Alliance

52 NetZero.green (2025). Carbon Removal. Available at: https://netzero.green/en/carbon-removal/. Accessed on: 9 September 2025 Available at Transition Finance & Investment WG Case Booklet.

53 UNFCCC (2025). National Authorities – Article 6.4 Mechanism. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement/article-64-mechanism/national-authorities. Accessed on: 9 September 2025. Available at Transition Finance & Investment WG Case Booklet.

Looking ahead to **COP30**, there is a **window of opportunity** to move from frameworks to implementation. The dual pathways frameworks presented in this document can play complementary roles: **MCUs** as an immediate channel for voluntary contributions and early pipelines, and **A6.4ERs transferred as ITMOs** to scale to meet **compliance demand**.

C. HARD-TO-ABATE SECTORS

C.1 PRIORITY 3

Priority 3: Unlock capital flows to accelerate decarbonization in hard-to-abate sectors by leveraging global regulatory frameworks, such as the IMO Net-Zero and CORSIA, to scale sustainable fuel adoption, while channeling existing climate finance facilities and mobilizing targeted financial instruments to support their transition

***Enabling action 1**: Promote policies, such as the IMO NetZero Framework, that reduce the cost price and enable the broad and technological agnostic acceptance of sustainable fuels to advance shipping decarbonization, supporting the deployment of compliant alternatives across regions and feedstock types.*

***Enabling action 2**: Promote acceptance and use of flexibility mechanisms that enable the decoupling of sustainability attributes from fuel supply physical operations, helping to reduce transaction costs, mitigate the price gap associated with SAF adoption, and accelerate capital deployment in the aviation sector.*

Relevant KPIs

TABLE 7 - HARD-TO-ABATE SECTORS RELEVANT KPIS

Type	KPI	Baseline
Hard-to-abate sectors	Financial flows to industrial and transportation transition projects	US$ 427B[54] CPI 2022
Hard-to-abate sectors	Number of industrial decarbonization projects reaching final investment decision (FID) per year	13 projects[55] MPP 2024
Sustainable fuels in shipping	Share of international maritime fleet powered by sustainable fuels	1.2% UNCTAD 2023
Sustainable fuels in aviation	Share of global aviation fuel production from sustainable aviation fuel	0.3%5[7] IATA 2024

54 CPI - CLIMATE POLICY INITIATIVE. Global Landscape of Climate Finance 2024. Considering only Transport and Industry sectors. Available at: https://www.climatepolicyinitiative.org/wp-content/uploads/2024/10/Global-Landscape-of-Climate-Finance-2024.pdf. Accessed on: June 27, 2025

55 MPP - MISSION POSSIBLE PARTNERSHIP. ITA-Global Project Tracker Update – June 2025. From November 2023 to October 2024. Available at: https://3stepsolutions.s3-accelerate.amazonaws.com/assets/custom/010856/downloads/Mission_Possible_Partnership_ITA-Global_Project_Tracker_Update_June-2025_EN.pdf?CID=4fa88f0b-4f9c-4715-8f50-3e4143381b62. Accessed on: June 27, 2025

56 UNCTAD – UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT. Review of Maritime Transport 2023. Available at: https://unctad.org/system/files/official-document/rmt2023_en.pdf. Accessed on: June 27, 2025

57 IATA – INTERNATIONAL AIR TRANSPORT ASSOCIATION. Annual Review 2025. Available at: https://www.iata.org/contentassets/c81222d96c9a4e0bb4ff6ced0126f0bb/iata-annual-review-2025.pdf. Accessed on: June 27, 2025

Context

Hard-to-abate sectors sit at the center of the climate transition challenge. Defined by their **structural dependence on fossil fuels** and lack of viable short-term alternatives, these sectors account for **~30% of global GHG emissions**[58]. Their net zero pathway requires **US$ 29 trillion in investment through 2050**[59], with ~40% allocated to ecosystem enablers — including infrastructure, retrofits, grid upgrades, and certification systems — essential for scaling green fuels and technologies.

Within this landscape, **aviation and shipping stand out for their strategic role in the climate transition** due to their complexity, cross-border operations and formal UN mandates, ICAO and IMO, respectively - combined with concentrated gaps in enabling infrastructure, which together have led to the early establishment of sector-specific frameworks: CORSIA and the **IMO Net-Zero Framework (MEPC 83)**. These mechanisms offer enforceable emissions targets and compliance structures, creating an **opportunity to mobilize capital**.

CORSIA aims to cap international aviation emissions at 2019 levels through a global **offsetting mechanism**. It requires airlines from states with +0,5% of global air traffic activity to purchase carbon credits for emissions exceeding 85% of their baseline[60]. The mandatory phase is set to begin in 2027, covering countries such as the US, Canada, Germany, and Japan. While **SAF can be used to reduce offsetting needs**, its integration is optional, underscoring the importance of mechanisms to reduce cost and price barriers, and drive broader adoption, especially given that **SAF cost may reach 3-5x more than fossil jet fuel**[61]. Importantly, solutions for aviation decarbonization, such as SAF production and usage, must be adapted to regional contexts as the ability to absorb costs vary across markets. Transition pathways must therefore consider these structural differences to ensure inclusive implementation.

The **IMO Net-Zero Framework**, in contrast, establishes mandatory GHG intensity (GHI) targets and a **pricing mechanism within the shipping**

58 WEF – WORLD ECONOMIC FORUM. Net-Zero Industry Tracker 2024. 2024. Excluding Oil & Gas. Available at: https://www.weforum.org/publications/net-zero-industry-tracker-2024/. Accessed on: June 27, 2025

59 WEF – WORLD ECONOMIC FORUM. Net-Zero Industry Tracker 2024. 2024. Excluding Oil & Gas. Available at: https://www.weforum.org/publications/net-zero-industry-tracker-2024/. Accessed on: June 27, 2025

60 IATA – INTERNATIONAL AIR TRANSPORT ASSOCIATION. Fact Sheet: CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation. Available at: https://www.iata.org/en/iata-repository/pressroom/fact-sheets/fact-sheet-corsia/. Accessed on: June 27, 2025

61 IATA – INTERNATIONAL AIR TRANSPORT ASSOCIATION. SAF Handbook – Section 5: SAF Production Costs. Available at: https://www.iata.org/en/programs/sustainability/reports/saf-handbook. Accessed on: June 27, 2025

sector. Set to begin enforcement in 2028, the framework defines fuel benchmarks and applies financial penalties or credit rewards based on a ship's emissions performance, creating an **internal incentive for adopting sustainable fuels** and improving operational energy efficiency. Despite this, **low carbon alternatives may still face abatement costs above current penalty cost**[62], requiring greater clarity over framework's criteria to interpret the true demand signal. As of now, the IMO has **approved GHI reduction curves** through 2035 and **penalty levels ranging from US$ 100 to 380 per ton of CO_2e**[63] for ships exceeding those thresholds. The ratification of the framework is expected in October 2025, while other key design elements, such as the definition of a reward zone for low-emission fuels and the methodology to determine GHI by fuel type, must be finalized prior to its entry into force in 2028.

These policy frameworks are creating **regulatory-backed market signals** for aviation and shipping, reinforcing the case for early action in both sectors. Although carbon penalties are expected to rise and green fuel costs may decline with scale, this **convergence is unlikely to occur fast enough to enable commercial viability** in the short term. **Targeted financial mechanisms are therefore essential to bridge the cost gap**, enable offtake agreements, and unlock investments. If properly implemented, aviation and shipping could serve as first-wave sectors for scaling transition finance and accelerating decarbonization across hard-to-abate industries.

Despite regulatory momentum, **asymmetries across jurisdictions** continue to undermine investment certainty. The absence of harmonized GHG accounting frameworks, especially regarding **feedstock treatment** and the limited **recognition of flexibility mechanisms**, creates ambiguity for both project developers and financiers. In this context, there is a clear need for dedicated international guidance to define eligibility criteria grounded in **life-cycle assessments (LCA)** of climate impact, **technology-neutral GHG performance and core sustainability safeguards**, such as responsible land use and fair labor conditions. This integrated approach helps ensure that transition pathways remain credible, consistent, and comparable across regions.

62 SUSTAINABLE SHIPPING INITIATIVE. FuelEU Maritime – Rules & Regulations. Available at: https://www.sustainable-ships.org/rules-regulations/fueleu. Accessed on: June 27, 2025

63 MÆRSK Mc-KINNEY MØLLER CENTER FOR ZERO CARBON SHIPPING. Countdown to historic IMO agreement lays groundwork for maritime decarbonization. Available at: https://www.zerocarbonshipping.com/news/countdown-historic-imo-agreement-lays-groundwork-for-maritime-decarbonization. Accessed on: June 27, 2025

C.2 PROPOSED FRAMEWORKS

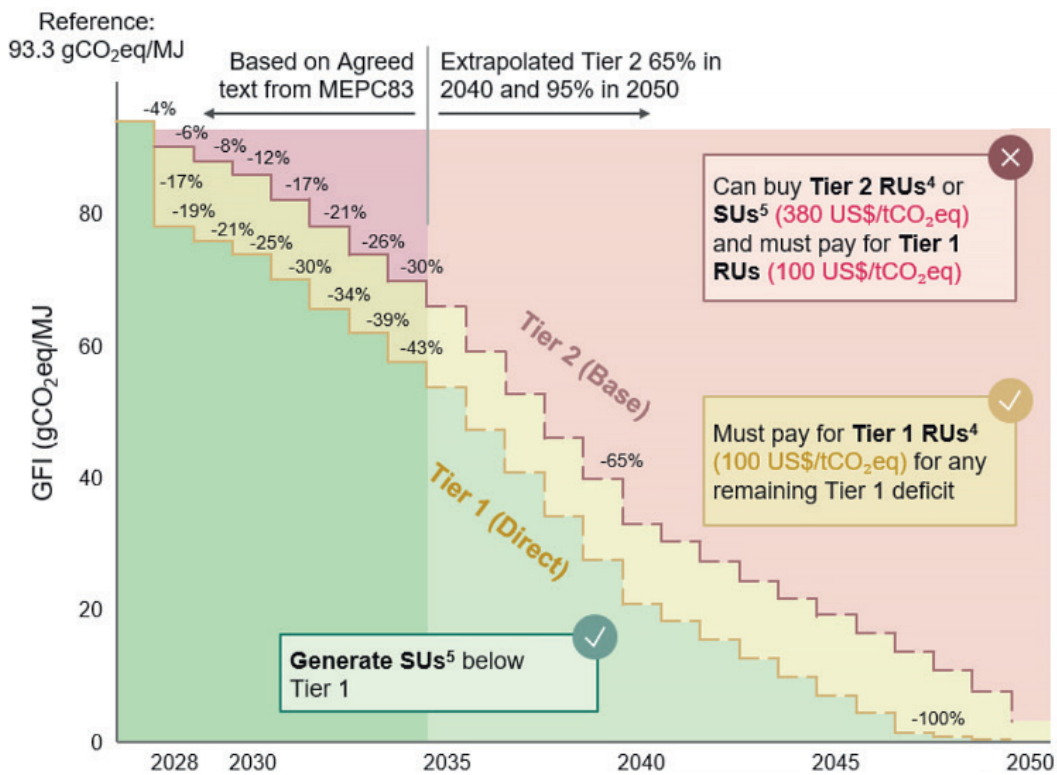
SHIPPING HYPOTHESIS

To scale up sustainable fuel production by facilitating offtake agreements through the aggregation of buyers and producers, backed by tailored financial mechanisms to cover the cost gap during the fuel transition period.

STRATEGIC APPROACH

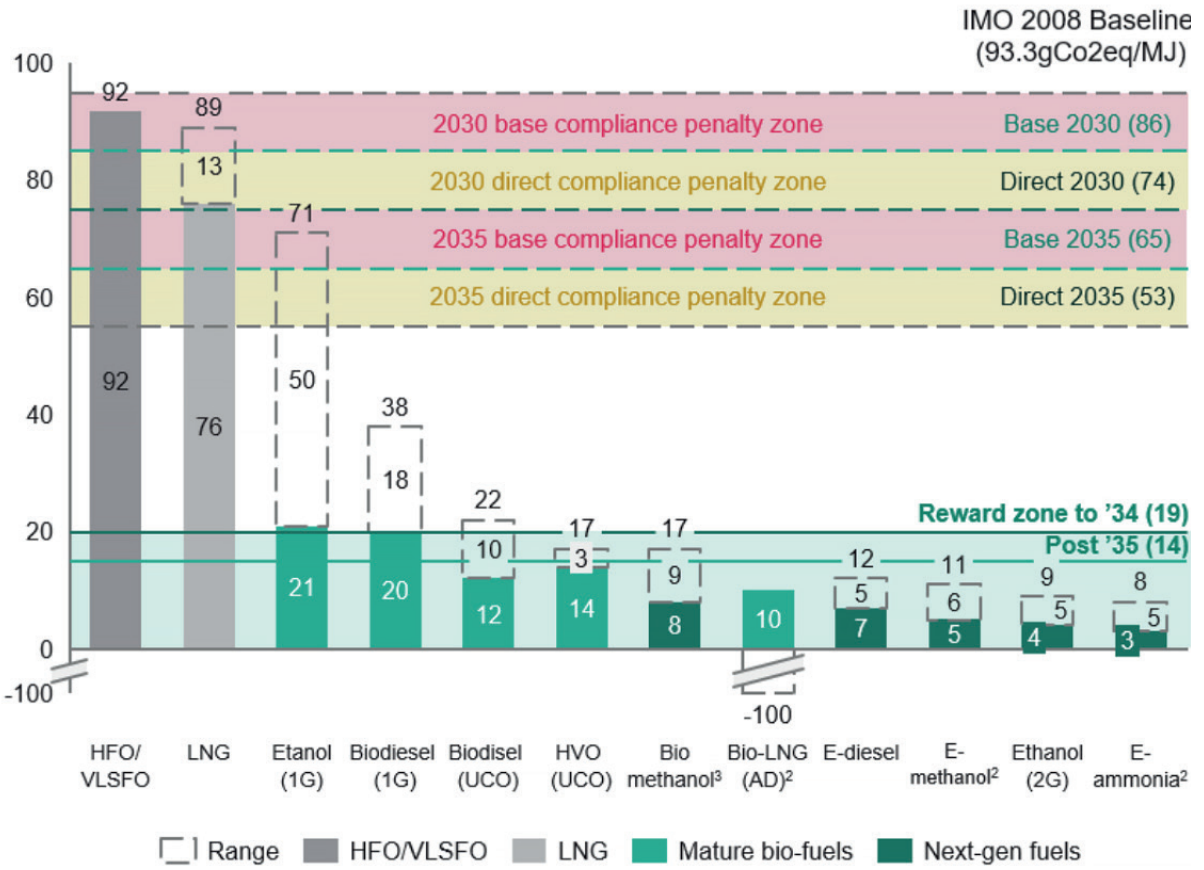
- Leverage the decarbonization momentum driven by the IMO Net Zero roadmap, which mandates a 43% GHI reduction from the reference level under the Direct Tier (US$ 100/tCO₂e penalty) and 30% under the Base Tier (US$ 380/tCO₂e penalty), combined with GHG intensity thresholds that place fossil options like HFO (Heavy Fuel Oil) and LNG (Liquefied Natural Gas) out of compliance by 2030.

FIGURE 6 - GHI REDUCTION FACTORS DEFINED BY IMO AND EXTRAPOLATED FORECAST



Source: MÆRSK Mc-KINNEY MØLLER CENTER FOR ZERO CARBON SHIPPING. Countdown to historic IMO agreement lays groundwork for maritime decarbonization. Available at: https://www.zerocarbonshipping.com/news/countdown-historic-imo-agreement-lays-groundwork-for-maritime-decarbonization. Accessed on: June 27, 2025
4. RU: Remedial Unit (i.e. penalty), 5. SU: Surplus Units (i.e. credits)

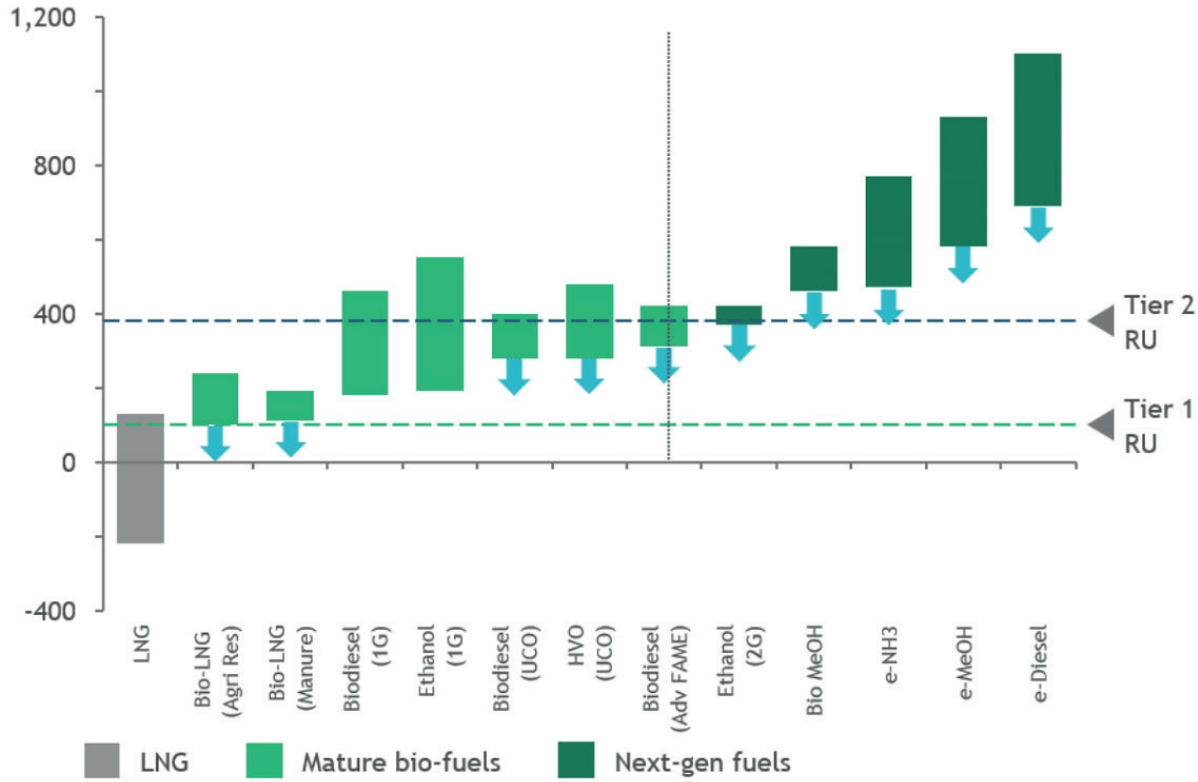
FIGURE 7 - GHI ACROSS FUELS (WTW1 IN GCO2EQ/MJ)



Source: IMO – MPEC 83; Global Centre for Maritime Decarbonization (GCMD); FuelEU Maritime (FEUM); BCG Analysis
1. WtW: Well-to-Wake (lifecycle fuel emissions metric); 2. Impact of pilot flame for ammonia methanol not considered. Impact of pilot flame remains low if biofuels are used but could add significant C-intensity if not (up to 13% HFO requirements); 3. Anaerobic digestion, GHI can vary depending on the feedstock. Note: The fuels shown are not exhaustive; some emerging fuels (e.g., HTL (Hydrothermal Liquefaction), pyrolysis oil) have been excluded for clarity.

- Focus on IMO compliant and lower-cost-gap fuels, such as mature biofuels like bio-LNG, ethanol and biodiesel, whose abatement costs fall within the US$ 100–380/tCO₂e carbon cost thresholds defined under the IMO Net-Zero compliance regime

FIGURE 8 - FUEL CARBON ABATEMENT COSTS 2025-2030 (US$/TCO2)[1,2]



Source: Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping (MMMCZCS), FEUM, Argus, BCG analysis
1. Carbon abatement cost of fuels; excludes infrastructure, vessel operation, penalties, etc; 2. Fuel is by far the most impactful lever for reducing emissions and achieving compliance; 3. RU: Remedial Unit (i.e. penalty); 4. ZNZ: Zero or Near-Zero Fuels
Note: (a) The fuels shown are not exhaustive - emerging fuels (e.g., e-LNG, HTL, pyrolysis oil) have been excluded for clarity. (b) Biofuel costs assume minor changes in 2025-2030 period and don't account for potential supply constraints / scarcity due to competition induced by additional demand from IMO policies for shipping, that may lead to volatility / increase of fuel price. (c) In this study only fuel costs were analyzed: most biofuels are drop-in solutions requiring no changes to existing HFO or LNG fueled vessels and infrastructure; next-gen fuels require additional CAPEX, but according to Det Norske Veritas (DNV) and MMMCZCS, this has negligible impact on total cost of ownership (TCO) compared to next-gen fuel costs. Fuel expenditures represent ~25-40% of TCO today; for next-gen fuels TCO share may rise to 60% during financing period and 80-90% after financing period.

- It is also important to consider that GHI intensity measures, although defined within regulatory frameworks, and consequentially fuel pathways abatement costs, can vary significantly depending on the **feedstock used and the region of production**. A practical example is **Brazilian ethanol**, which benefits from high agricultural productivity and a low-carbon, cost competitive energy matrix. As a result, sugarcane ethanol in Brazil can reach **GHI intensities as low as 21 gCO_2e/MJ**[64], well below the regulatory ceiling

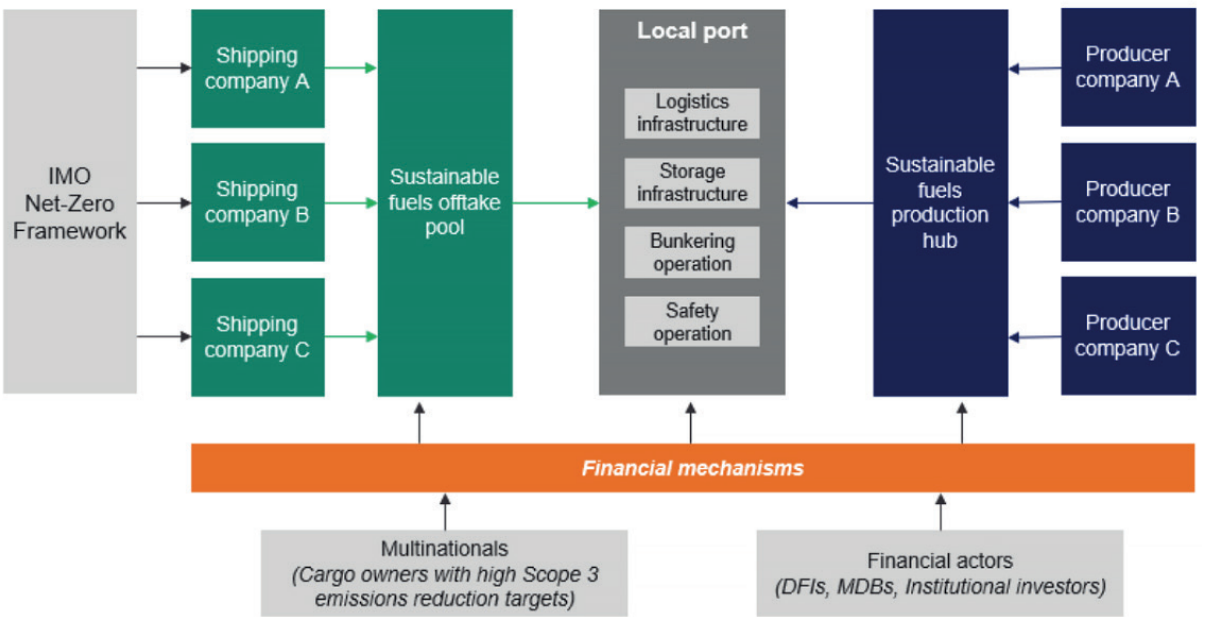
64 MINISTRY OF MINES AND ENERGY (Brazil). Public Consultation – Annex to Technical Note No. 12/2018/DBIO/SPG: Proposed Annual Mandatory Emission Reduction Targets in Fuel Commercialization under the National Biofuels Policy (RenovaBio). Available at: https://antigo.mme.gov.br/c/document_library/get_file?uuid=40d35ad0-582d-82e3-1de0-61979c5905ae&groupId=36224. Accessed on: August 07, 2025.

for this pathway, which can exceed 70 gCO_2e/MJ in other geographies. These regional advantages highlight the need for harmonized lifecycle assessment methodologies to ensure fair recognition of low-carbon fuels across global markets.

- Anchor a high-potential production region to identify prospective producers and buyers.
- Enable demand aggregation across buyers to unlock viable offtake volumes, recognizing that isolated demand from individual carriers may be insufficient to drive scale and reduce the cost gap.
- Build fit-for-purpose financial structures that bridge the cost gap, cover debt and interest obligations associated with upfront production CAPEX investments, and serve as a replicable model for other deals.

PROPOSED FRAMEWORK

FIGURE 9 - PROPOSED FRAMEWORK FOR SHIPPING



Source: SB COP Transition Finance & Investment Working Group(FEUM); BCG Analysis

RATIONALE FOR EACH ACTOR

- **Green fuel producers**: Secure long-term demand through offtake agreements with defined delivery points, unlocking financing and enabling production scale-up.

- **Shipping companies**: Reduce compliance costs by accessing sustainable fuels under aggregated models, benefiting from economies of scale to help narrow the cost gap.
- **Multinationals**: Advance value chain decarbonization by acquiring Scope 3 credits through green shipping solutions, leveraging initiatives like **ZEMBA** (Zero Emission Maritime Buyers Alliance) that aggregate demand from companies willing to pay a premium[65].
- **Local port**: Strengthen market positioning and unlock infrastructure financing by promoting adaptations to allow low-carbon fuel operations.
- **Financial Actors**: Mitigate exposure to project risks by investing in assets backed by pre-structured demand, improving return visibility and overall bankability.

Fuel pathways and where to focus

Identifying **fuels well positioned to lead the shipping transition** is the first step to foster credible offtake agreements and unlocking investment. This assessment should be guided by the following criteria:

- **Compliance alignment** with IMO Net-Zero intensity targets and credit frameworks, which must be agnostic and based on robust life-cycle assessment methodologies to ensure comparability and consistency across fuel alternatives.
- **Lower cost gap** relative to fossil alternatives under projected carbon pricing.
- **Compatibility with existing and ordered fleet infrastructure**, considering retrofit or engine adaptation needs.
- **Capacity to scale production** before and during the transition period.

Building on these criteria, it is possible to outline a **staged transition pathway** for fuels in the shipping sector, recognizing that **different technologies are likely to become viable at different moments in time**. This phased approach enables more effective prioritization of investments and infrastructure development, and reflects the evolving landscape of **regulatory pressure, technical readiness, and market conditions across**

65 ZEMBA – Zero Emission Maritime Buyers Alliance. *RFP 1 – How We Work.* Available at: https://www.shipzemba.org/how-we-work/rfp-1/. Accessed on: August 06, 2025

short, medium, and long-term horizons. In this context, the expected green fuel trajectory begins with drop-in biodiesels already in use today, advances through new biofuels, and moves toward e-fuels as they become commercially viable closer to 2040:

1. **Short term – Drop-in biodiesels**: Bio-based drop-in fuels like FAME (Fatty Acid Methyl Esters) and HVO (Hydrotreated Vegetable Oil) are already in commercial use and compatible with existing marine engines and logistics infrastructure. They offer a lower cost gap compared to other alternatives and can be deployed immediately, especially in blended formats. Their uptake is driven by pioneering customer demand and alignment with near-term regulatory compliance.

2. **Medium term – Scaling biofuels**: Fuels such as biomethanol, ethanol, and bio-based LNG offer higher decarbonization potential and are expected to scale as engine compatibility improves and regulatory pressure intensifies with the tightening of IMO compliance target. While alcohol-based fuels require moderate infrastructure adaptation, they also depend on the broader adoption of methanol engines, which can operate with ethanol as well[66]. In contrast, bio-based liquefied gas can leverage existing bunkering and storage infrastructure originally built for its fossil alternative and greater compatibility with current engines, reducing deployment barriers. Due to their lower GHI intensity, these fuels are eligible for credit generation and may benefit from reward zone incentives under the IMO Net-Zero Framework.

3. **Long term – E-fuels based on hydrogen and biogenic CO_2**: E-methanol, e-LNG, and e-diesel are projected to become viable as the cost for renewable electricity and green hydrogen decline. These fuels promise deep decarbonization potential but require significant technological maturation and industrial scale-up to achieve cost competitiveness with fossil alternatives. Notably, **integrated production of bio and e-methanol** and **bio and e-LNG** may unlock operational synergies, such as heat recovery from electrolysis, integration of carbon flows and shared infrastructure, which can enhance economic viability and improve scalability as a dual path for decarbonization. As with mid-term biofuels, these options may also benefit from credit trading mechanisms and reward zone incentives under the IMO Net-Zero Framework, further supporting their future deployment.

1. 66 REPO, Juho et al. Ethanol: a viable alternative fuel option. Presented at the 31st CIMAC World Congress 2025. Available at: https://papers2025.cimaccongress.com/pdf/CIMAC_paper_080.pdf. Accessed on: June 27, 2025.

Importantly, the fuel transition is not expected to replace one solution with another, but rather to **expand the range of sustainable alternatives contributing to overall decarbonization**. In this context, scaling biofuel production in the short term plays a critical role not only for immediate compliance and emissions reduction, but also as a lasting alternative in the long-term fuel mix scenarios.

Implementation approaches

To operationalize sustainable marine fuel offtake at scale, **different implementation models can be considered**. These scenarios are particularly relevant for geographies with robust agricultural and logistical bases, and should **reflect local market structure, infrastructure readiness, and regulatory flexibility**.

In this context, a few implementation pathways emerge as relevant alternatives to **unlock green fuel hubs**, offering practical ways to structure both the supply and demand sides of the value chain:

- **Joint venture model between fuel producers**: Multiple biofuel producers around the same green fuel can consolidate efforts to co-develop a single large-scale facility, sharing infrastructure and certification costs, and increasing bankability by aggregating offtake into a single high-volume anchor.
- **Independent producers in a shared hub**: A small group of 3–5 producers may pursue separate production assets while coordinating shared infrastructure and logistics providers. This model enables faster deployment and maintains commercial independence but may require regulatory clarity to address competition and governance risks.
- **Fuel demand aggregator**: Aggregation mechanisms, such as the one developed by the Maersk Mc-Kinney Møller Center for Zero Carbon Shipping[67], can help overcome the fragmented demand landscape in shipping by coordinating offtake clusters across multiple buyers and suppliers. When properly structured, these mechanisms can mitigate key barriers across the value chain, enhancing the risk profile of potential offtake agreements. While not a substitute for willingness to pay, aggregation can play a catalytic role in unlocking volumes for pre-

2. 67 MÆRSK Mc KINNEY MØLLER CENTER FOR ZERO CARBON SHIPPING. *Webinar: Insights on Fuel Demand Aggregation for Sustainable Maritime Fuels*. Available at: https://www.zerocarbonshipping.com/events/webinar-insights-on-fuel-demand-aggregation-for-sustainable-maritime-fuels. Accessed on: August 06, 2025

FID projects and enabling bankable commitments when anchored by creditworthy stakeholders.

- **Green shipping corridors**: Green shipping corridors are defined trade routes where public and private actors coordinate to deploy low-emission fuels, vessels, and infrastructure under a shared implementation and regulatory framework. By concentrating supply, demand, and logistics around specific geographies, they serve as accelerators for early-stage markets, lowering barriers for pilot deployment and stakeholder coordination. A leading example is the Chile Green Corridor, spearheaded by the Maersk Mc-Kinney Møller Center, which aims to ship 25 Mt of copper over 15 years using green ammonia, avoiding up to 15 Mt of CO_2 emissions. Beyond implementation, the Center developed a replicable methodology to identify routes and guide regulatory alignment, positioning green corridors as a strategic pathway to de-risk investment and scale maritime decarbonization[68].

Also, for pathways where the cost gap remains high or where projects require large upfront investments, different financing strategies could be necessary to de-risk projects and enable scale:

- **Carbon-linked Contracts for Difference (CFDs)**: Best suited for scenarios where the cost gap is intermittent and/or expected to diminish over time — driven by rising carbon penalties and scale effects — CFDs help bridge the initial cost difference by guaranteeing a minimum spread between green and fossil fuels. This enables early-stage projects to proceed, with support phased out as market conditions mature.
- **Concessional financing**: More appropriate in contexts where the cost gap is unlikely to be closed by market forces alone, requiring direct financial support to ensure project viability despite unfavorable unit economics. Instruments may include concessional loans and risk-sharing tools, like blended finance structures.
- **Green public procurements**: Public sector purchasing power, equivalent to 14% of its GDP in the EU[69], can be leveraged to create

68 MÆRSK Mc-KINNEY MØLLER CENTER FOR ZERO CARBON SHIPPING. Green Corridors. Available at: https://www.zerocarbonshipping.com/green-corridors. Accessed on: June 27, 2025. Available at Transition Finance & Investment WG Case Booklet.

69 EEB – EUROPEAN ENVIRONMENTAL BUREAU. Green Public Procurement: Easy, Affordable, Achievable – Factsheet 2024. Available at: https://eeb.org/wp-content/uploads/2024/10/EEB_GPP-Factsheet_2024.pdf. Accessed on: June 27, 2025

early demand for low-carbon fuels. By redirecting procurement policies toward sustainable shipping solutions, governments can help close the cost gap and establish market-creating signals to attract private sector engagement.

- **Voluntary decarbonization payments**: Some corporates, cargo owners and multinationals, are willing to pay a premium to support decarbonized shipping, without requiring direct financial returns. While not a standalone solution, their voluntary contributions can act as a complementary lever to de-risk early projects. Coalitions like ZEMBA, which recently closed its first RFP to contract zero-emission shipping services from 2025[70], illustrate a growing interest in structured demand aggregation. Similarly, Maersk, a member of the First Movers Coalition, has signed a long-term offtake agreement with Goldwind for 500,000 tonnes of green methanol per year starting in 2026[71]. These examples show how voluntary demand, when organized and credible, can help catalyze investment and send market signals for scale-up.
- **Dedicated maritime transition funds**: Purpose-built funds can play a catalytic role in accelerating asset decarbonization by offering tailored financing tools, such as structured leasebacks for low-carbon vessels and port infrastructure. The Eurazeo Sustainable Maritime Infrastructure Fund, for example, mobilized €200 million in capital to support the deployment of low-emission maritime assets through private credit, with backing from the European Investment Fund[72]. By offering predictable financing terms and blended capital structures, such funds help de-risk investments and unlock broader market adoption.
- **Emerging mechanisms to enable market formation**: In addition to traditional financial tools, shipping decarbonization will require new, innovative instruments to channel capital into early- and mid-stage projects. One such example is the H2Global double-auction mechanism, which contracts low-carbon hydrogen producers through long-term purchase agreements, and separately sells the fuel through short-term auctions to end-users — bridging the price gap with public funding[73]. This intermediary structure reduces market risk,

70 ZEMBA – Zero Emission Maritime Buyers Alliance. RFP 1 – How We Work. Available at: https://www.shipzemba.org/how-we-work/rfp-1/. Accessed on: August 06, 2025

71 WEF - WORLD ECONOMIC FORUM. *First Movers Coalition Status Report 2024.* Available at: https://www3.weforum.org/docs/WEF_First_Movers_Coalition_Status_Report_2024.pdf. Accessed on: August 06, 2025

72 Available at Transition Finance & Investment WG Case Booklet.

73 H2GLOBAL STIFTUNG. *The H2Global Instrument – A Double Auction Mechanism for Clean Hydrogen Market Creation.* Available at: https://h2-global.org/the-h2global-instrument/. Accessed on: September 23, 2025

creates price signals, and enables offtake even in the absence of full commercial competitiveness, offering a model that could be adapted for other low-carbon shipping fuels.

These mechanisms are not mutually exclusive. In practice, a **hybrid approach** — combining transitional instruments like CFDs, structural support, and voluntary demand from corporate actors — may be required to effectively unlock investments. Layering financial tools can address both short-term viability and long-term competitiveness, de-risking early projects while building the market conditions for scalable and sustained adoption of low-carbon fuels in the maritime sector.

Aviation hypothesis

Facilitate the scale-up of sustainable aviation fuel offtake agreements by leveraging flexibility mechanisms, such as Book & Claim, to channel international financial flows toward regions with high potential of SAF production, creating early demand certainty and enabling investment in production.

The framework aims to enable regions with lower SAF production competitiveness to finance fuel production in high-capacity geographies, leveraging the decoupled benefit and offering a replicable model to unlock similar agreements globally.

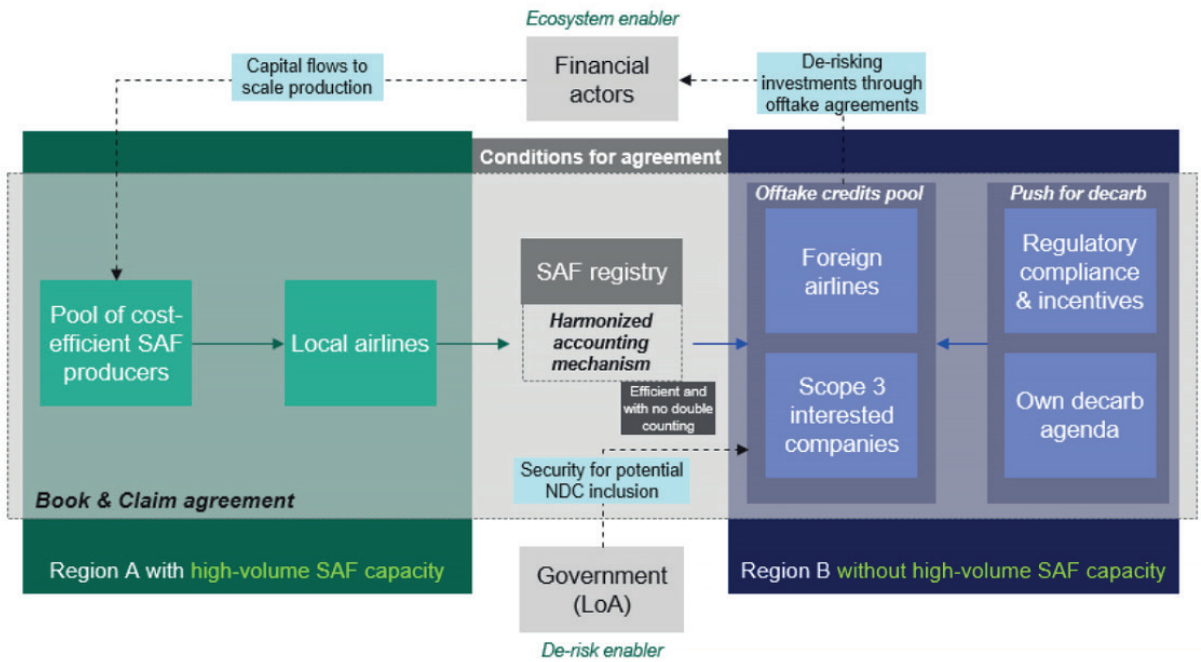
Strategic approach

- Leverage voluntary targets and CORSIA mechanism to redirect financial flows from offsetting to in-sector solutions by promoting SAF as a compliance alternative.
- Identify clear SAF demand profiles, including preferred feedstocks and willingness to pay, to inform production planning and offtake structuring
- Unlock international financing through flexible mechanisms that decouple physical SAF use from emissions reduction claims.
  - To ensure credibility and long-term viability, these flexibility mechanisms must adhere to **high-integrity standards**, including **robust traceability, single-claim enforcement**, and **alignment with evolving GHG accounting frameworks**.

- Foster SAF production in competitive regions to mitigate the price gap and improve its economic viability.
  - Countries with abundant feedstock, clean energy matrices, and favorable production conditions — such as Brazil and other EMDCs — can play a strategic role in SAF production, supporting the decarbonization of global aviation through fair cost-sharing arrangements with developed countries and balancing economic competitiveness with climate action.
  - Position Article 6 of the Paris Agreement as a potential enabler to structure international transactions that reward emission reductions in emerging economies, while supporting compliance and voluntary targets in developed markets.
- Promote the use of a harmonized registry to track SAF certificates, reduce market risk perception, and ensure environmental integrity.
- Engage governments and coalitions to support mechanism adoption through formal recognition, public endorsements, and alignment with future national climate objectives.

PROPOSED FRAMEWORK

FIGURE 10 - PROPOSED FRAMEWORK FOR AVIATION



Note: LoA: Letter of Authorization
Source: SB COP Transition Finance & Investment Working Group

Rationale for each actor

- **SAF producers**: Secure demand visibility through offtake agreements, unlocking early-stage financing and enabling scalable production.
- **Local airline**: Reduce fuel transition costs by accessing SAF without absorbing the full cost gap, improving its sustainability positioning.
- **SAF registry**: Strengthen credibility as transition enabler by facilitating verified transactions and accelerating global SAF adoption.
- **Foreign airline**: More affordable pathway to emissions reduction, enabling immediate impact without physical access or infrastructure constraints at point of operation.
- **Scope 3 buyers**: More affordable pathway to emissions reduction, ensuring full traceability and alignment to recognized standards to demonstrate climate action.
- **Financial actors**: Deploy capital with lower exposure to demand risk, supported by structured agreements that offer pricing and volume certainty.
- **Governments region A**: Attract international capital into domestic SAF production, generating green jobs and positioning the country as a sustainable aviation hub.
- **Governments region B**: Advance climate targets without local SAF infrastructure, supporting global decarbonization and gaining recognition in international agenda.

Implementation approaches

Book & Claim offers a promising solution to decouple physical fuel delivery from emissions accounting, allowing SAF producers to reach global buyers and unlocking demand in regions without SAF infrastructure. However, **several barriers still hinder SAF scale-up**:

- **Regulatory acceptance**: While CORSIA permits Book & Claim under specific conditions — including SAF certification and airport blending — its flexibility is not universally accepted. By contrast, ReFuelEU and EU ETS require physical SAF delivery and use within the EU, limiting the use of cross-border certificates.
  - ***Solution***: Foster regulatory confidence and global alignment through structured pilot programs in high-capacity SAF regions,

backed by robust traceability and compliance-grade registries, enabling SAF production to achieve scale and export capacity

- **Certification and fuel eligibility**: Only eight SAF pathways are certified approved in the EU[74], subject to RED[75] sustainability criteria. For CORSIA, eligibility requires compliance with five implementation elements, mass balance blending and traceable documentation to verify fossil fuel displacement, even under Book & Claim.
  - **Solution**: Expand the portfolio of approved SAF pathways through accelerated certification programs, such as IATA's, coupled with funding and technical support for producers seeking pathway validation.
- **Additionality requirements**: Under current principles, any SAF volume used to meet legal mandates cannot be counted again for voluntary claims. This includes SAF blended under regulatory obligations, which creates friction for voluntary buyers seeking verified reductions.
  - **Solution**: Raise awareness and visibility of geographical additionality criteria among SAF buyers and ensure better visibility of regional mandates.
- **Fragmented accounting standards and double counting risks**: The lack of standardized emissions accounting and fragmented SAF registries creates buyer uncertainty and the risk of double counting.
  - **Solution**: Promote interoperability between registries, advancing harmonization through multilateral forums, supporting the development of a global harmonized master registry, and adopting consistent GHG accounting guidelines integrated with existing frameworks.
  - **Case in practice**: The Civil Aviation Decarbonization Organization (CADO) SAF Registry, developed together with IATA, is the first global and interoperable registry designed to ensure traceable and verifiable SAF claims, aligned with both CORSIA and Greenhouse Gas Protocol (GHGP)[76]. With interoperability already established across three registries and more in development, the system lays the foundation for future integration with national and voluntary programs, providing the infrastructure needed for harmonized accounting, double-counting prevention, and cross-border SAF recognition.

74 EASA – EUROPEAN UNION AVIATION SAFETY AGENCY. What are Sustainable Aviation Fuels? Available at: https://www.easa.europa.eu/en/domains/environment/eaer/sustainable-aviation-fuels/what-are-sustainable-aviation-fuels#standardisation-process-for-qualification-of-new-saf-production-pathways. Accessed on: June 27, 2025

75 RED: Renewable Energy Directive (EU)

76 Available at Transition Finance & Investment WG Case Booklet.

- **Credibility and perception issues**: Skepticism over the validity and climate impact of Book & Claim limits uptake by first movers, driven by regulatory uncertainty, system fragmentation, and lack of standardized accounting.
  - **Solution**: Launch structured pilots that demonstrate real emissions impact, supported by transparent reporting, third-party auditing, and stakeholder communication to build confidence in the mechanism.
  - **Case in practice**: The first certified Book & Claim SAF transaction in Latin America, led by ABRA, GOL, Vibra, and Microsoft, demonstrated that the mechanism can deliver real climate impact, with a ***94.5% lifecycle GHG reduction***, and a successful cost-sharing arrangement between Scope 1 and Scope 3 actors[77]. The pilot was executed through a certified registry and included third-party auditing, transparent reporting, and stakeholder engagement, building confidence in the model and **setting a precedent for scalable SAF deployment in emerging markets**. More information can be found in Chapter C3 – Cases of this report.
- **SAF supply bottlenecks**: Regulatory progress and decarbonization mandates in aviation are expanding demand for low-emission alternatives such as SAF. However, without sufficient production capacity, airlines may be forced to seek alternative compliance pathways, undermining SAF's role in sectoral decarbonization.
  - **Solution**: Strengthen the investment case for SAF production by combining clear demand signals with technical de-risking and tailored financing structures. Instruments such as blended finance, tolling agreements, and concessional capital can improve project bankability and accelerate final investment decisions in diverse regions.
  - **Cases in practice:**
    - ◊ In Pakistan, International Finance Corporation (IFC) and Asian Development Bank (ADB) structured a **blended equity and debt package** to *establish South Asia's first industrial-scale SAF facility, converting local waste feedstocks into second-generation biodiesel*[78] .

77 Available at Transition Finance & Investment WG Case Booklet.
78 Available at Transition Finance & Investment WG Case Booklet.

- ◊ In Brazil, Energis8 is developing the country's first **Alcohol-to-Jet (ATJ) ethanol SAF plant** under a **tolling model** that dilutes CAPEX/OPEX requirements and enables shared project funding across multiple stakeholders, improving bankability and expanding access to low-cost domestic ethanol as feedstock[79].

- **Airport infrastructure constraints and legal security**: Scaling SAF supply requires not only production but also significant investment in airport-side infrastructure, such as dedicated storage tanks, blending systems, and integrated logistics. These capital-intensive investments typically rely on long-term amortization horizons that, due to the temporary nature of concession and lease agreements within airport zones creates legal uncertainty and undermines investor confidence.

  - **Solution**: Implement targeted incentives for SAF infrastructure at high-demand airports, coupled with clear regulatory frameworks for land use and compensation rules for reversible assets.

By addressing these barriers through certification harmonization, clearer standards, and secure registry design, **Book & Claim can become a robust enabler of SAF market expansion**.

79 Available at Transition Finance & Investment WG Case Booklet.

SUSTAINABLE
BUSINESS
COP30

C. PRIVATE SECTOR CASES

C.1: BANK OF AMERICA - DEBT FOR NATURE SWAP (DFNS)

This case is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet.

Stakeholders involved

- **Government of Ecuador**: Ministry of Economy and Finance; Ministry of Environment, Water and Ecological Transition.
- **Bank of America**: sole structuring agent and sole dealer manager.
- **The Nature Conservancy**: project coordinator via Nature Bonds Program.
- **U.S. International Development Finance Corporation**: political risk insurance.
- **Inter-American Development Bank** (DFC): liquidity guarantee.
- **Enosis Capital, Global Green Growth Institute, Centerview Partners**: technical advisor and financial structuring agent to the Republic.
- **Fondo del Biocorredor Amazónico**: independent conservation trust fund to channel proceeds.

Initiative description and objective

Ecuador refinanced **US$1.53 billion of external debt via a US$1 billion sovereign debt conversion** to lower debt-service costs and lock in long-term conservation finance for terrestrial and freshwater ecosystems in the Ecuadorian Amazon — the Amazon Biocorridor Program (BCA). The objective is twofold: **generate fiscal savings** for the sovereign and **create a durable funding stream for biodiversity**, rivers, and forest protection, with strong local governance and social safeguards.

Results

Transaction closed on December 17, 2024. Expected outcomes **include >US$800 million in net fiscal savings by 2035**; approximately **US$400 million in new conservation funding plus an estimated US$60 million in endowment returns over 17 years**, administered through the Fondo

BCA trust fund. The program targets improved management of **~4.6 million hectares of existing protected areas**, creation/protection of an additional ~1.8 million hectares, **and protection of ~18,000 km of rivers**.

Key takeaways

- **Structuring**: Blended finance anchored by DFC political-risk insurance (~US$1 billion) and an Inter-American Development Bank (IDB) liquidity guarantee (US$155 million, per TNC) materially improved pricing and scale — this is now a template for terrestrial/freshwater conservation DFNS.
- **Governance**: Routing funds via an independent, multi-stakeholder conservation trust fund with annual public reporting addresses core critiques of DFNS transparency and benefit-sharing.
- **Replicability**: While DFNS momentum is strong, earlier Ecuador transactions (e.g., Galápagos 2023) drew transparency and participation scrutiny; future swaps must hard-wire community engagement and disclosure to avoid similar concerns.

C.2: C2FO - WORKING CAPITAL PLATFORM

This case is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet.

Stakeholders involved

- **C2FO**: on-demand working capital platform.
- **Large enterprise buyers operating in Mexico** (e.g., Walmart México, Costco México, Ford México, International Motors, and others).
- **Mexican SME suppliers**: participating in early-payment programs.
- (As applicable) **third-party funders**: providing liquidity alongside buyer balance sheets.

Initiative description and objective

C2FO's dynamic early-payment platform allows Mexican SMEs to **accelerate payment of their approved invoices** — either funded by the buyer's own balance sheet (dynamic discounting) or by a 3rd party funder (supply chain finance) — thereby **reducing the cash-flow squeeze** caused by long payment terms. The objective is to establish a **steady, low-cost, and low-friction source of working capital for SMEs nationwide**.

Results

Market entry formalized May 4th 2023, with a Mexican subsidiary and initial enterprise relationships (including Walmart México), with additional buyer marketplaces announced. Modeling estimates **nationwide adoption could unlock up to US$30 billion of SME working capital**, lift **GDP by ~1.1%, and increase employment by up to ~1.3%**[80]. As per the submission, **5,000+ Mexican businesses** have already received early payments via the platform.

Key takeaways

- **System effect**: Buyer-led early payments can scale quickly across supply chains without heavy public subsidy, directly addressing SME liquidity

80 BUSINESS AT OECD & IOE. *Implementing Funding Platforms*: A Solution to Fragmentation. Available at: https://www.businessatoecd.org/hubfs/B20-Business%20at%20OECD-%20IOE%20Implementing%20Funding%20Platforms%20Paper.pdf

constraints at low transaction cost, and enabling the flow of climate finance throughout the real economy.

- **Design choices**: Flexibility to toggle between buyer balance-sheet funding and third-party liquidity widens supplier inclusion and resilience across rate cycles. It also facilita.tes better pricing for suppliers that are sustainable linked.
- **Policy implication**: Public actors can amplify impact by promoting prompt-payment norms, standardizing e-invoicing/receivables verification, and co-funding inclusive supplier onboarding in priority sectors (e.g., green and women-owned supply chains).

C.3: NINETY ONE - EMERGING MARKETS TRANSITION DEBT STRATEGY*

This case is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet.

Stakeholders involved

- **Ninety One** (investment manager; fixed-income team incl. portfolio leads).
- **Foundational partners** and **advisors** during development.
- **Emerging Markets corporate issuers** and project sponsors across public and private credit.

Initiative description and objective

Ninety One invests at the intersection of return and real-world change by providing commercial-rate debt to Emerging market companies and infrastructure projects with credible transition plans or that enable the low-carbon transition. The objective is to deliver competitive risk-adjusted returns while financing real-world emissions reductions through a blended public and private credit approach.

Results

Strategy announced November 29, 2023, and brought to market in early 2024, with a defined investment philosophy, team, and origination networks across EM corporates and project finance. As at end August 2025, EMTD reports since inception gross return of 8% annualized. The yield of the portfolio is 6.11% ex cash, with an average spread of 238 bps across the portfolio of bonds and loans. The current portfolio carbon mitigation potential to 2030 is ~960mt CO2e– which is about double that of the UK's NDC to 2030. Public materials highlight the role EMTD can play in portfolios, improved yield/ credit quality via private credit inclusion and diversification benefits.

* Past performance is not a guide for future returns.
Source: Ninety One, August 31, 2025. Performance is gross of fees (returns will be reduced by management fees and other expenses incurred), income is reinvested, in USD.
For important information (incl. strategy risks) please view the strategy overview at: https://ninetyone.com/en/international/funds-strategies/strategies/emerging-markets-transition-debt-strategy.

KEY TAKEAWAYS

- **Additionality pathway**: Financing heavy emitters with credible transition plans – paired with rigorous transition impact assessment – can drive real-economy decarbonization rather than just portfolio "greening."
- **Structure for scale**: Blending listed EM corporate credit with originated private deals can improve economics and resilience; however, governance must ensure robust KPI selection, verification, and downside protocols if transition milestones are missed.
- **Policy implication**: Development partners and public DFIs can catalyze the pipeline by standardizing transition-linked covenants and data templates to crowd in institutional capital at commercial rates.

C.4: B3 - BRAZILIAN MARKET INFRASTRUCTURE

This case is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet.

Stakeholders involved

- **B3** – regulated market infrastructure and registry operator.
- **ACX** – global trading platform provider.
- **Project developers.**
- **Buyers** (companies, funds and financial institutions).
- **Brazilian regulators.**

Initiative Description and Objectives

B3 plays a crucial role as a regulated market infrastructure for the financial system and capital markets. Since December 2023, B3 developed a market infrastructure for carbon credits, which includes a trade repository responsible for controlling ownership, transactions, and retirements of these credits. Additionally, B3 formalized a partnership with ACX to launch a digital trading platform for carbon credits, connecting B3's trade repository to ACX's platform and promoting a transparent, regulated marketplace integrated with global systems.

This integrated carbon credits infrastructure allows project developers to register their credits and enables companies to purchase them for compliance or voluntary purposes in a secure, real-time environment with international connectivity. The adopted model successfully replicates financial initiatives already implemented by B3, such as decarbonization credits (CBIO), and aligns with regulatory frameworks like Brazilian Securities Commission Resolution (RCVM) 175.

FIGURE 05 - CASE 4 BLUEPRINT – B3 & ACX BRAZILIAN CARBON MARKET INFRASTRUCTURE

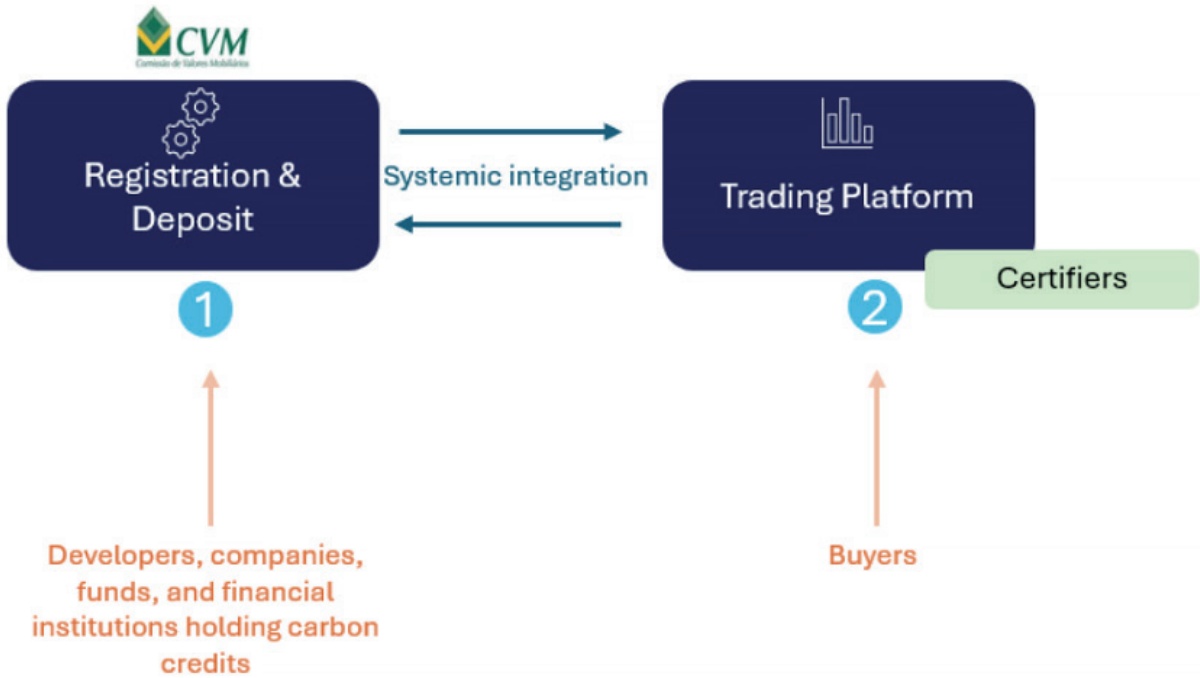


TABLE 6 - B3 & ACX BRAZILIAN CARBON MARKET INFRASTRUCTURE

1. Registration & Deposit	• Organized markets approved by the Brazilian Securities Commission (CVM) and Central Bank of Brazil (BCB) • Control, custody, and traceability of carbon credits, which may also include all assets such as SBCE[81], ITMOs, and voluntary credits (including those acquired by insurers under Art. 56) – Regulated and Voluntary • Interoperable • Compliance with RCVM 175
2. Trading	• Interoperable • Execution of electronic auctions, including over-the-counter, listing, bidding, and concessions
Standardization • Registration and trading to enhance traceability and scale of commercialization • Efficient regulatory supervision • Prevents double counting • Equal treatment reduces legal uncertainty	

Source: B3, SB COP Transition Finance & Investment Working Group

81 SBCE: Brazilian Carbon Credit System

Results

The B3 registry platform for carbon credit and the partnership with ACX trading platform was officially launched in December 2023. In 2024, the first year of operation, the platform recorded transactions of approximately 3.3 million tCO_2 in carbon credits and onboarded more than 30 projects and corporate participants.

The integration of a bilateral electronic process reduced the time required for trading and settlement, increasing operational efficiency compared to traditional voluntary carbon market practices. The initiative built on existing models, such as the CBIO systemic architecture, which helped establish a reliable and scalable framework for carbon credit transactions.

The initiative made use of B3's existing market infrastructure, demonstrating the practicality of integrating carbon credit trading into established financial systems.

Key Takeaways

The project faces challenges related to regulatory clarity and standardization across markets. Adoption required the alignment of multiple stakeholders, including corporations, project developers, and public institutions.

Nevertheless, the platform shows potential to be scaled and replicated. By combining domestic regulated market infrastructure with the ability to integrate through Application Programming Interfaces (APIs) with other systems and platforms, the initiative provides interoperability with global markets and strengthens Brazil's role in the development of carbon market.

The case illustrates how the creation of a structured environment, aligned with regulatory frameworks and supported by existing financial infrastructure, can contribute to the credibility, transparency, and efficiency of carbon markets, especially the SBCE in Brazil. This foundation may support the growth of both voluntary and regulated transactions, controlling not only carbon credits from the voluntary market but also the allowances (CBE), Brazilian certificate of verified emission reduction or removal (CRVEs) and ITMOS, while also facilitating Brazil's participation in international climate finance mechanisms.

C.5: STEGRA - GREEN H2-DRI-STEEL PROJECT

This case **reinforces the Working Group's connection to other hard-to-abate sectors beyond aviation and shipping**. It is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet.

Stakeholders involved

- **Stegra**: Project developer and operator of the industrial facility.
- **BMW, Mercedes-Benz, Porsche, Scania, Shaeffler, Lindab**: Early offtakers committed to procuring green steel.
- **Just Climate, Hy24, GIC, Altor**: Institutional investors and climate-focused funds.
- **Midrex, SMS group, Thyssenkrupp Nucera, Fortum, Statkraft, Linde, Aquatech, AFRY, GRK, Nordec/Wästbygg**: Industrial technology, energy providers and engineering partners.
- **Vale, Rio Tinto**: High-grade iron ore suppliers.
- **Societe Generale, ING, Unicredit, BNP Paribas, KFW, Euler Hermes, CINEA, Swedish Energy Agency**: Financiers.
- **EU's Clean Hydrogen Alliance, Cleantech for Europe, Renewable Hydrogen Coalition**: Associations and support.
- **Boden & Luleå Municipality, Region Norrbotten, Land & Environment Court, Luleå Technical University**: Local infrastructure and institutional enablers.

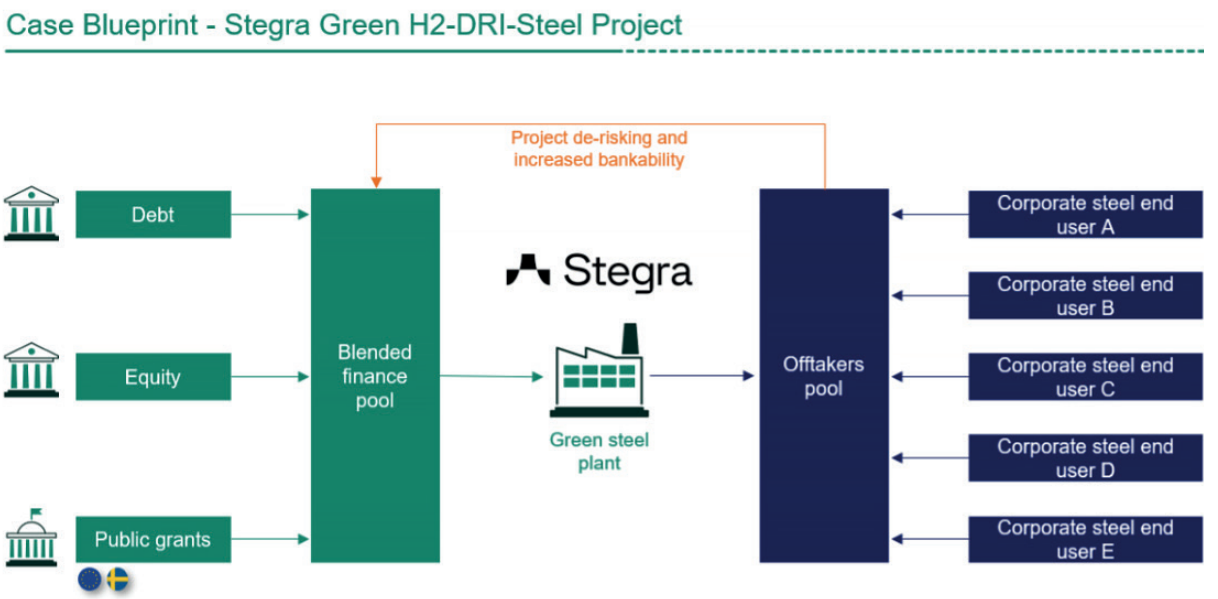
Initiative description and Objective

Stegra is building the **world's first large-scale integrated green steel plant** in Boden, northern Sweden. The facility will produce 2.5 million tonnes of near-zero-emission steel annually by **replacing fossil-based reduction with green hydrogen**. The process integrates electrolysis, a hydrogen based direct reduction process and electric arc furnaces (EAF), to achieve significant reduction emissions compared to conventional blast furnaces.

The project aims to **demonstrate the technical and financial feasibility of decarbonizing a hard-to-abate sector** through deep electrification

and green hydrogen. With a hybrid financing structure, advanced purchase agreements, and collaboration across the value chain, Stegra is establishing a replicable model that can support the broader industrial transition.

FIGURE 11 - CASE 5 BLUEPRINT – STEGRA GREEN H2-DRI-STEEL PROJECT



Source: Adapted from SB COP Transition Finance & Investment Working Group Booklet for illustrative purpose

RESULTS

The plant is currently under construction, with operations **expected to begin in 2026**. It will have a yearly capacity of **2.5 Mt of finished steel** and **2.1 Mt of DRI** (direct reduced iron) through an **expected production of 100 ktpa of hydrogen**. The process is expected to emit less than 200 kg CO_2 per ton of steel produced, achieving over **95% reduction against blast furnaces**.

Stegra has secured **€6.5 billion in funding**, including **€4.2 billion in debt, €2.1 billion in equity**, and €350 million in public grants from the EU Innovation Fund and the Swedish Energy Agency. **Binding long-term offtake agreements** with industrial clients was instrumental in **ensuring project bankability**. These contracts, combined with public support, helped unlock financing at scale for a greenfield operation in a capital-intensive sector.

Key Takeaways

Stegra faced structural challenges, including **energy infrastructure limitations, material supply risks**, and **regulatory uncertainties**. The project also had to overcome the cost premium of renewable hydrogen and the **complexity of synchronizing technology providers, utilities**, and **offtakers** in a single integrated value chain.

Still, the initiative demonstrates **strong scalability**. The model can be **replicated in other regions with abundant renewable energy and access to quality iron ore** — such as Brazil, where Stegra is already exploring expansion opportunities. It also illustrates how a **first-of-a-kind (FOAK) project**, backed by public grants, strong industrial partnerships, and blended finance, can accelerate decarbonization in hard-to-abate sectors and reshape global supply chains for industrial materials.

C.6: ABRA - 1ST BOOK & CLAIM IN LATIN AMERICA

This case is also featured in the Transition Finance & Investment Booklet. For additional details and more information, please refer to the full version available in the booklet

Stakeholders involved

- **GOL Linhas Aéreas (company part of Abra, a leading airline group in Latin America)**: Scope 1 transport service provider and final claimant of the SAF environmental attributes in Brazil.
- **Vibra Energia**: Fuel distributor and operational partner supporting the delivery and certification process.
- **SkyNRG**: SAF supplier responsible for sourcing and coordinating SAF volumes in Europe.
- **RSB (Roundtable on Sustainable Biomaterials)**: Certification body and operator of the Book & Claim registry.
- **Microsoft**: Scope 3 buyer and co-financer, supporting decarbonization via voluntary claims.

Initiative description and Objective

This case marks the **first certified Book & Claim transaction for SAF in Latin America**. In the pilot, SAF was **physically consumed in Europe** while the sustainability attributes were **transferred and retired in Brazil** through the RSB Book & Claim Registry. The fuel, based on used cooking oil (UCO), was certified under ISCC EU RED (International Sustainability & Carbon Certification, compliant with EU Renewable Energy Directive) and presented a 94.5% GHG reduction rate compared to fossil baseline fuels.

The initiative aimed to **test Book & Claim as a flexibility mechanism** to support aviation decarbonization by decoupling the physical use of SAF from the location of its environmental impact. By enabling the **transfer and retirement of sustainability attributes across jurisdictions**, the pilot explored how this model can be used to **redirect demand toward regions with more favorable cost conditions and unlock international financing for SAF projects**. It also demonstrated how compensation can be allocated to countries and markets with higher per capita emissions

and fuel consumption, **enhancing the overall efficiency of climate action while promoting a more balanced global allocation of mitigation responsibilities**.

Another key objective of the exercise was to showcase cost-sharing arrangements that help mitigate the impact of SAF price premiums on airline operations, particularly in Latin America where air transport plays a critical role in ensuring regional connectivity and supporting economic development.

Results

The pilot successfully enabled the **retirement of 50 certified Book & Claim Units** (BCUs) by GOL, corresponding to **190 tCO_2eq of emissions avoided**, verified under RSB standards and calculated using a baseline of 94 gCO_2/MJ and an actual LCA value of 5.18 gCO_2/MJ, a **94.5% reduction rate**.

The transaction also demonstrated a feasible **cost-sharing mechanism** in which the high price of SAF was contained to only 2x times higher than fossil jet fuel through **collaboration between a Scope 1 operator (GOL) and a Scope 3 buyer (Microsoft)**, illustrating how **corporate buyers can help finance decarbonization via voluntary contributions**.

Key Takeaways

The pilot faced key bottlenecks including **regulatory uncertainty** around the formal recognition of Book & Claim in regulatory frameworks; **cost barriers**, with SAF still significantly more expensive than fossil alternatives; and **constraints related to additionality**, particularly in demonstrating that the claimed SAF use was not already counted under compliance schemes in producing countries

Despite these hurdles, the case demonstrated strong scalability potential. From a **technical standpoint**, it validated the **ability to transparently track and account for SAF-related emissions** reductions through a certified Book & Claim registry, ensuring environmental integrity across jurisdictions. The model can also **enable broader market access** by allowing companies in developed countries to finance SAF production in cost-competitive regions. Finally, it highlighted **the feasibility of co-financing structures** between Scope 1 actors and Scope 3 corporate buyers, helping distribute costs and accelerate adoption.

FIGURE 12 - CASE 6 BLUEPRINT – 1ST BOOK&CLAIM OPERATION IN LATIN AMERICA

Sources: Transition Finance & Investment Working Group

ANNEXES

ANNEX A – ACRONYMS

Acronyms	Definition
A&R	Adaptation and Resilience
A6.4ER	Article 6.4 Emission Reductions
ABS	Asset-Backed Securities
ACR	American Carbon Registry
ADB	Asian Development Bank
API	Application Programming Interface
ART	Architecture for REDD+ Transactions
ASEAN	Association of Southeast Asian Nations
ATJ	Alcohol-to-Jet
BCA	Amazon Biocorridor Program
BCB	Central Bank of Brazil
BCU	Book & Claim Unit
BNDES	Brazilian Development Bank
CA	Corresponding Adjustments
CADO	Civil Aviation Decarbonization Organization
CAPEX	Capital Expenditures
CAR	Climate Action Reserve
CARP	Centralized Accounting & Reporting Platform
CBAM	Carbon Border Adjustment Mechanism
CBIO	Decarbonization Credit (Brazil)
CCP	Core Carbon Principles
CCR	CORSIA Central Registry
CDM	Clean Development Mechanism
CFD	Contract for Difference
CLO	Collateralized Loan Obligation
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CO_2e	Carbon Dioxide Equivalent
CPI	Climate Policy Initiative
CRT	Climate Reserve Tonnes
CRVE	Certificate of Verified Emission Reduction or Removal

CVM	Brazilian Securities Commission
DFC	U.S. International Development Finance Corporation
DFI	Development Finance Institution
DFNS	Debt-for-Nature Swap
DNA	Designated National Authority
DNV	Det Norske Veritas
DRI	Direct Reduced Iron
EAF	Electric Arc Furnace
EMDCs	Emerging Markets and Developing Countries
EMTD	Emerging Markets Transition Debt
ERT	Emission Reduction Tonnes
ETS	Emissions Trading System
FAME	Fatty Acid Methyl Esters
FEUM	FuelEU Maritime
FID	Final Investment Decision
FOAK	First of a Kind
FX	Foreign Exchange
GCMD	Global Centre for Maritime Decarbonization
GHG	Greenhouse Gas
GHGP	Greenhouse Gas Protocol
GHI	Greenhouse Gas Intensity
GS-VER	Gold Standard Verified Emission Reduction
HFO	Heavy Fuel Oil
HTL	Hydrothermal Liquefaction
HVO	Hydrotreated Vegetable Oil
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICROA	International Carbon Reduction and Offset Alliance
ICVCM	Integrity Council for the Voluntary Carbon Market
IDB	Inter-American Development Bank
IETA	International Emissions Trading Association
IFC	International Finance Corporation
IMO	International Maritime Organization
ISCC EU RED	International Sustainability & Carbon Certification, compliant with EU Renewable Energy Directive
ITMO	Internationally Transferred Mitigation Outcome

JCM	Joint Crediting Mechanism
KPI	Key Performance Indicator
LAC	Latin America and the Caribbean
LATAM	Latin America
LCA	Life Cycle Assessment
LNG	Liquefied Natural Gas
LoA	Letter of Authorization
MCU	Mitigation Contribution Unit
MDB	Multilateral Development Bank
MEPC 83	Marine Environment Protection Committee, 83rd session
MJ	Megajoule
MMMCZCS	Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping
MPP	Mission Possible Partnership
MRV	Monitoring, Reporting, and Verification
NbS	Nature-based Solutions
NDC	Nationally Determined Contribution
OIMP	Other International Mitigation Purposes
OPEX	Operational Expenditure
PACM	Pre-Article 6.4 Certified Mechanism
PPA	Power Purchase Agreement
PV	Photovoltaic
RCVM	Brazilian Securities Commission Resolution
RED	Renewable Energy Directive (EU)
SAF	Sustainable Aviation Fuel
SBCE	Brazilian Carbon Credit System
SB COP	Sustainable Business COP
SMEs	Small and Medium Enterprises
TCO	Total Cost of Ownership
TREES	The REDD+ Environmental Excellence Standard
UN	United Nations
VCM	Voluntary Carbon Market
VCMI	Voluntary Carbon Market Integrity Initiative
VCU	Verified Carbon Unit
WG	Working Group
WtW	Well-to-Wake (lifecycle fuel emissions metric)
ZEMBA	Zero Emission Maritime Buyers Alliance

ANNEX B – COMPOSITION AND MEETING SCHEDULE

Distribution of Members by country

Brazil	42
USA	17
UK	3
France	2
India	3
Switzerland	3
Argentina	2
Canada	1
Italy	2
Japan	2
Belgium	1
Chile	1
Denmark	1
Finland	1
Latvia	1
New Zealand	1
South Africa	1
Spain	1

Distribution of Members by gender

Male: 49

Female: 36

Task Force Chair

Name	Organization	Position	Country
Luciana Ribeiro	eB Climate	CEO	Brazil

Task Force Deputy Chairs

Name	Organization	Position	Country
Gianluca Riccio	Business at OECD	Chair Finance Committee	UK
Luisa Palacios	Center on Global Energy Policy SIPA, Columbia University	Research Director and Managing Director of Energy Transition Finance	USA
Paula Kovarsky	Legend Capital	Partner	Brazil

Task Force Co-Chairs

Name	Organization	Position	Country
Ahmed Saeed	Allied Climate Partners	CEO	USA
Avinash Persaud	IDB	Special Advisor to the President	USA
Eduardo Mufarej	Just Climate	Co-chief Investment Officer	Brazil
Hendrik du Toit	Ninety One	Co-chief Investment Officer	Brazil
Joaquim Levy	Safra	Director of Economic Strategy and Market Relations	Brazil
Karen Fang	Bank of America	Managing Director, Global Head of Infrastructure & Sustainable Finance	USA
Nili Gilbert	Carbon Direct	Vice chairwoman	USA

Task Force PMO

Name	Organization	Position	Country
Bernardo Passerino Szvarça	GSS	PMO	Brazil
Priscila Drozdek de Alcântara	GSS	PMO	Brazil
Cecília Michelis	GSS	PMO	Brazil

Task Force CNI Focal Point

Name	Organization	Position	Country
Priscila Maria Wanderley Pereira	CNI	Industry and Policy Specialist	Brazil

Task Force Members

Name	Organization	Position	Country
Alexandre Groszmann	European Energy	Senior Project Manager, Power-to-X	Brazil
Bo Cerup Simonsen	Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping	Chief Executive Officer	Denmark
John Eleoterio	Goldman Sachs	Managing Director	USA
Caio Dafico	Atvos	Investments and Business Development VP	Brazil
Charlie McLellan	Industrial Transition Accelerator (ITA)	Strategy Lead	Brazil
Dan Carol	Milken Institute Finance	Senior Director, Center for Financial Markets	USA
Enrique Prini Estebecorena	A&F	Sr Of Counsel - Compliance, ESG & Energy	Argentina

Maria Whittaker	Abra	Chief Corporate Responsibility Officer	Brazil
Carlos Martins	ACX	Director	Brazil
Yaroslav Memrava Neto	AEGEA	Business Development Director	Brazil
Sergio Gusmão Suchodolski	-	-	Brazil
Luiz Gustavo Leal Machado Talarico	Ambev	Sustainability Director	Brazil
Alan Levy	Bank of America	Managing Director	USA
Valmir Gabriel Ortega	Belterra	Partner	Brazil
Anmay Dittman	Blackrock	Director and Portfolio Manager at the Climate Finance Partnership	USA
Carlos Takahashi	Blackrock	Chairman of BlackRock in Brazil	Brazil
Laura Gontijo de Vasconcellos	Blue Like an Orange	Director	Brazil
Dario Soto Abril	Trafigura & Puma Energy Foundations	Executive Director	Switzerland
Silvana Machado	Bradesco	Chief People Officer & Sustainability	Brazil
Mariana Oiticica	BTG Pactual	Co-Head of ESG & Impact Investing	Brazil
Dave Rouse	CarbonClick	Chief Executive Officer	New Zealand
Lida Preyma	Celandaire Capital	Chief Executive Officer	Canada
Diogo Oliveira	CNSeg	President	Brazil
Caroline Flamer	Columbia University	Professor	USA
Bruce Usher	Columbia University	Professor	USA
Roberto Race	Competere - Policies for Sustainable Development	Chief Institutional Communication and Media Relations	Italy
Giulia Marsan	Economic Research Institute for ASEAN and East Asia	Head of Startup and Inclusion Program	Italy
Juliana Salles Almeida	IADB	Principal Specialist at the IDB Presidency	Brazil
John Denton	ICC	Secretary General	France
Kavita Sinha	Green Climate Fund	Director, Private Sector Facility	India
Christian Deseglise	Acting on personal capacity only	Acting on personal capacity only	USA
Jorge Hargrave	Marae	Director	Brazil
Laia Barbarà	World Economic Forum	Head of Climate	Switzerland
Lucas de Moura Reis	BNDES	Brazilian Climate and Ecological Transformation Investment Platform (BIP) Secretariat	Brazil

Natalia Dias	IDB Invest	Managing Director - Capital Markets & Structured Finance	USA
Luciana Costa	BNDES	Director of Infrastructure, Energy Transition and Climate Change	Brazil
Manuel Reyes-Retana	International Finance Corporation (IFC)	Director, South America Hub	USA
Maria Losada	Itau BBA	Itau Head of Carbon Products & Sales	Brazil
Marcelo Furtado	Itausa	Head of Sustainability	Brazil
Sabīna Alta	Laflora	Development Director	Latvia
Marina Cançado	Convergence Capital	Founder	Brazil
Mario Gouvêa	National Treasury Secretariat	Advisor	Brazil
Caio Franco	Mombak	Head of Public Policy	Brazil
Simon Zadek	Morphosis Solutions	Founder and Managing Partner	Switzerland
Annika Brouwer	Ninety One	Sustainability Specialist	UK
Paulo Laguardia	Orizon	Executive Director	Brazil
José Pugas	Regia Capital	Partner & Chief Sustainability Officer	Brazil
Beth Burks	S&P	Sustainable Director	UK
Henrique Dantas	Sanctu	Co-founder & COO	Brazil
Leonardo Colombo Fleck	Santander	Managing Director	Brazil
Juliana De Podesta	SP Ventures	Head de ESG e Impacto	Brazil
Mathilde Saada	Excelerate Energy	Sustainability and Public Affairs Manager	USA
Danielly de Andrade Mello Freire	United Nations Global Compact - Network Brazil	Climate Coordinator	Brazil
Ana Carolina Avzaradel Szklo	Voluntary Carbon Markets Integrity Initiative, VCMI	Technical Director	Brazil
Sara Simonds	Venture Climate Alliance	Executive Director	USA
Pedro Wongtschowski	-	-	Brazil
Veronique Ormezzano	VYGE Consulting	Independent Advisor Financial Regulation	France
Marcelo Behar	WBCSD	Senior Advisor	Brazil
Kenneth Berlin	Atlantic Council	Senior Fellow	USA
Rafik Ammar	e-NG Coalition	Global Policy Director	Belgium
Joonas Rauramo	Coolbrook	CEO	Finland
Patricia Condorí	Minera EXAR	Sustainability Supervisor	Argentina
Megumi Muto	Mizuho Bank	Managing Executive Officer	Japan

Antoni Ballabriga Torreguitart	BBVA	Global Head of Sustainability Intelligence & Advocacy	Spain
Swati Pandey	CII (Confederation of Indian Industry)	Principal Counsellor	India
Valeska Gadelha	-	-	Brazil
Yukimi SHIMURA	MUFG Bank	Managing Director in charge of Corporate Engagement on GX and Sustainability	Japan
Christine Majowski	GIZ	Project Director	Brazil
Gustavo Ribeiro	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Implementation Manager	Brazil
Diego Martínez del Río	Latam	Corporate Sustainability Manager	Chile
Tony Lent	Capital for Climate	Co-founder	USA
Maria Eduarda Pessoa de Assis	Instituto Igarapé	Legal and Institutional Relations Coordinator	Brazil
Luiz Masagão	B3	Chief Products and Clients Officer	Brazil
Sunil Parnami	YesBank	Head, Investor Relations and Sustainability	India

Task force Meetings Schedule

Data	Format
28/05/2025	Online
08/07/2025	Online
06/08/2025	Online
10/09/2025	Online

ANNEX C – PARTNERS

Knowledge Partners

BCG

SYSTEMIQ

Network Partners

IDB Invest

cebds

GFANZ
Glasgow Financial Alliance for Net Zero

HEIDRICK & STRUGGLES

KORN FERRY

iCS 10 YEARS
institute for CLIMATE & SOCIETY

UN environment programme
finance initiative

UEBT SOURCING WITH RESPECT

DISCLAIMER AND ACKNOWLEDGEMENTS

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CNI Brazilian National Confederation of Industry