



Accessing Forest Carbon Markets

Mongolia Green Resilient Landscapes

Training course

22-27 June 2025

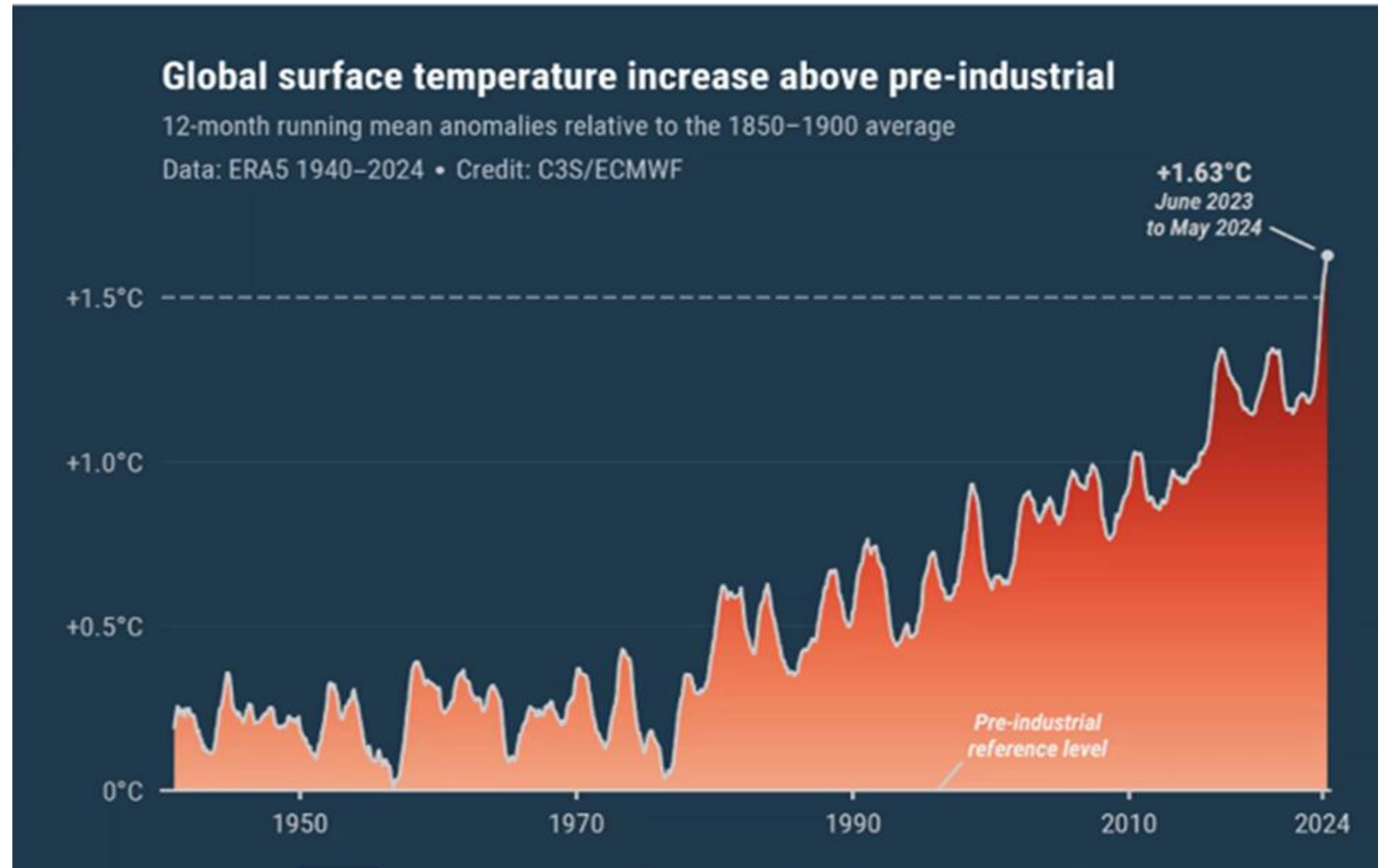
OBJECTIVES OF THE SESSION

- Introduce the VCM and its relevance to forestry
- Understand the project cycle, players, and standards
- Explore Mongolia's role and opportunities
- Prepare for potential project development or oversight



Why Carbon Markets Matter

- Climate urgency: emissions must peak and decline



Why Carbon Markets Matter

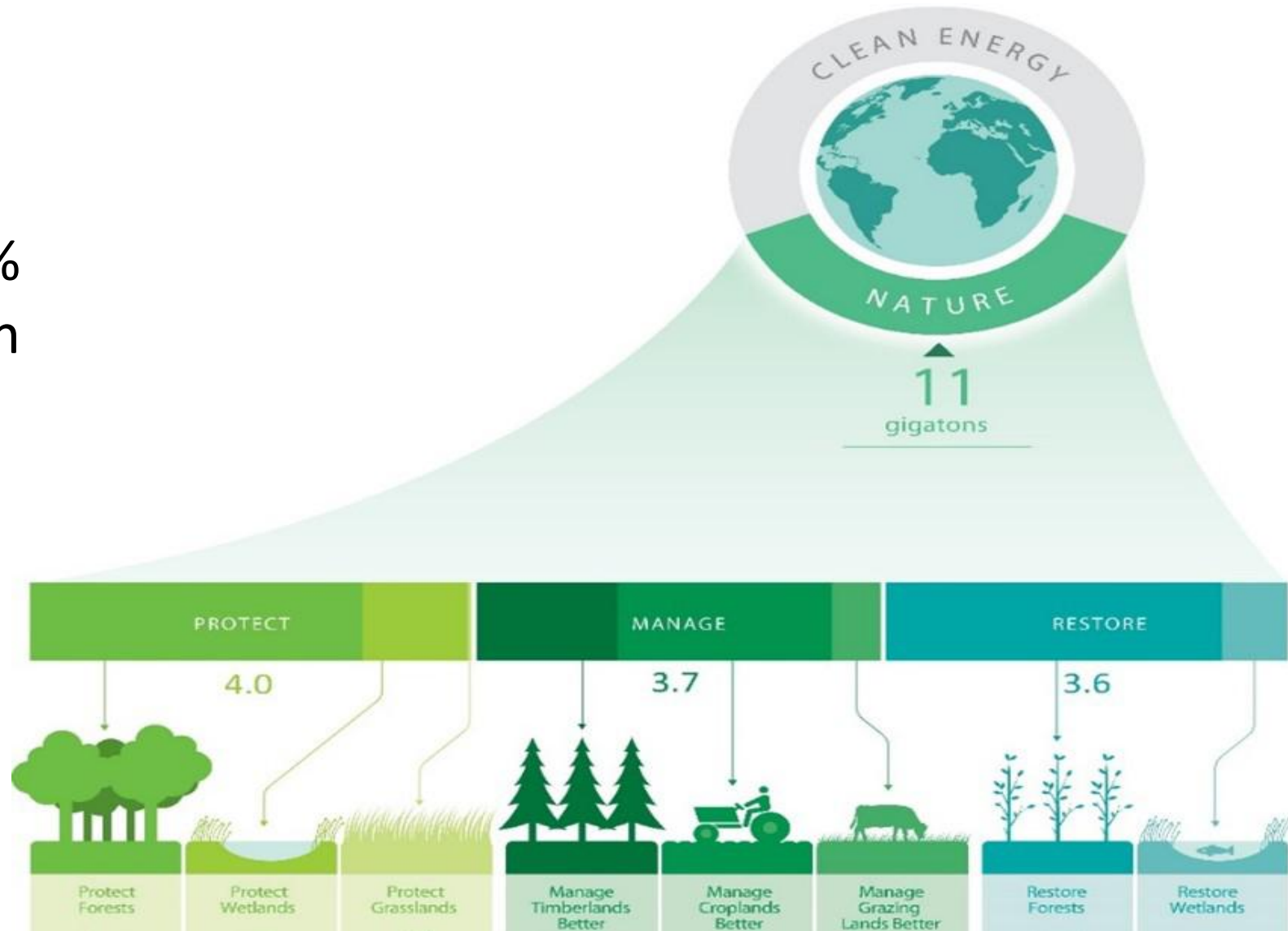
- Climate urgency: climate and environmental-related disasters are the main global risks



2 years	10 years
1 st Misinformation and disinformation	1 st Extreme weather events
2 nd Extreme weather events	2 nd Biodiversity loss and ecosystem collapse
3 rd State-based armed conflict	3 rd Critical change to Earth systems
4 th Societal polarization	4 th Natural resource shortages
5 th Cyber espionage and warfare	5 th Misinformation and disinformation
6 th Pollution	6 th Adverse outcomes of AI technologies
7 th Inequality	7 th Inequality
8 th Involuntary migration or displacement	8 th Societal polarization
9 th Geoeconomic confrontation	9 th Cyber espionage and warfare
10 th Erosion of human rights and/or civic freedoms	10 th Pollution

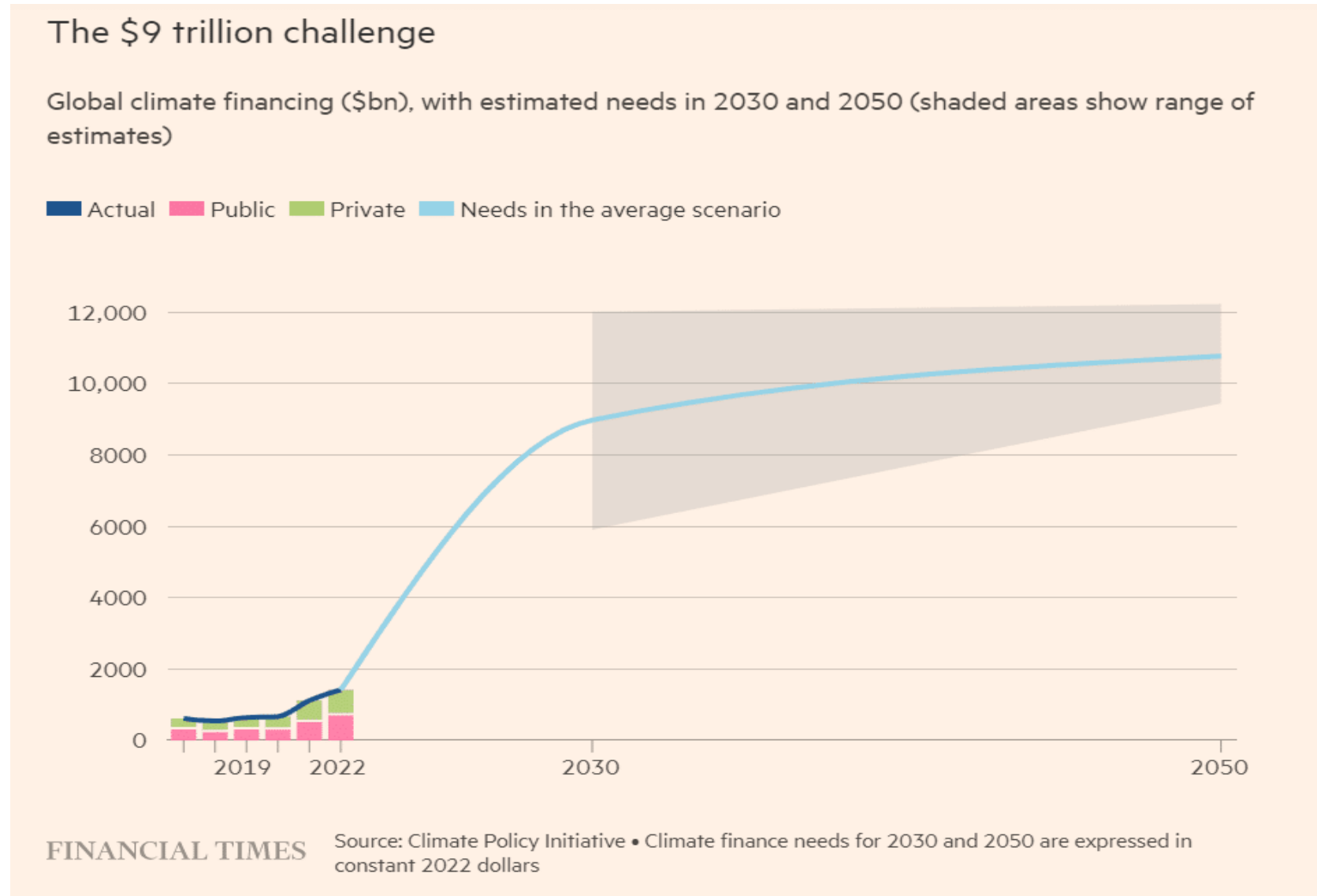
Why Carbon Markets Matter

- Nature-based solutions = 30–40% of global mitigation and adaptation potential to local communities



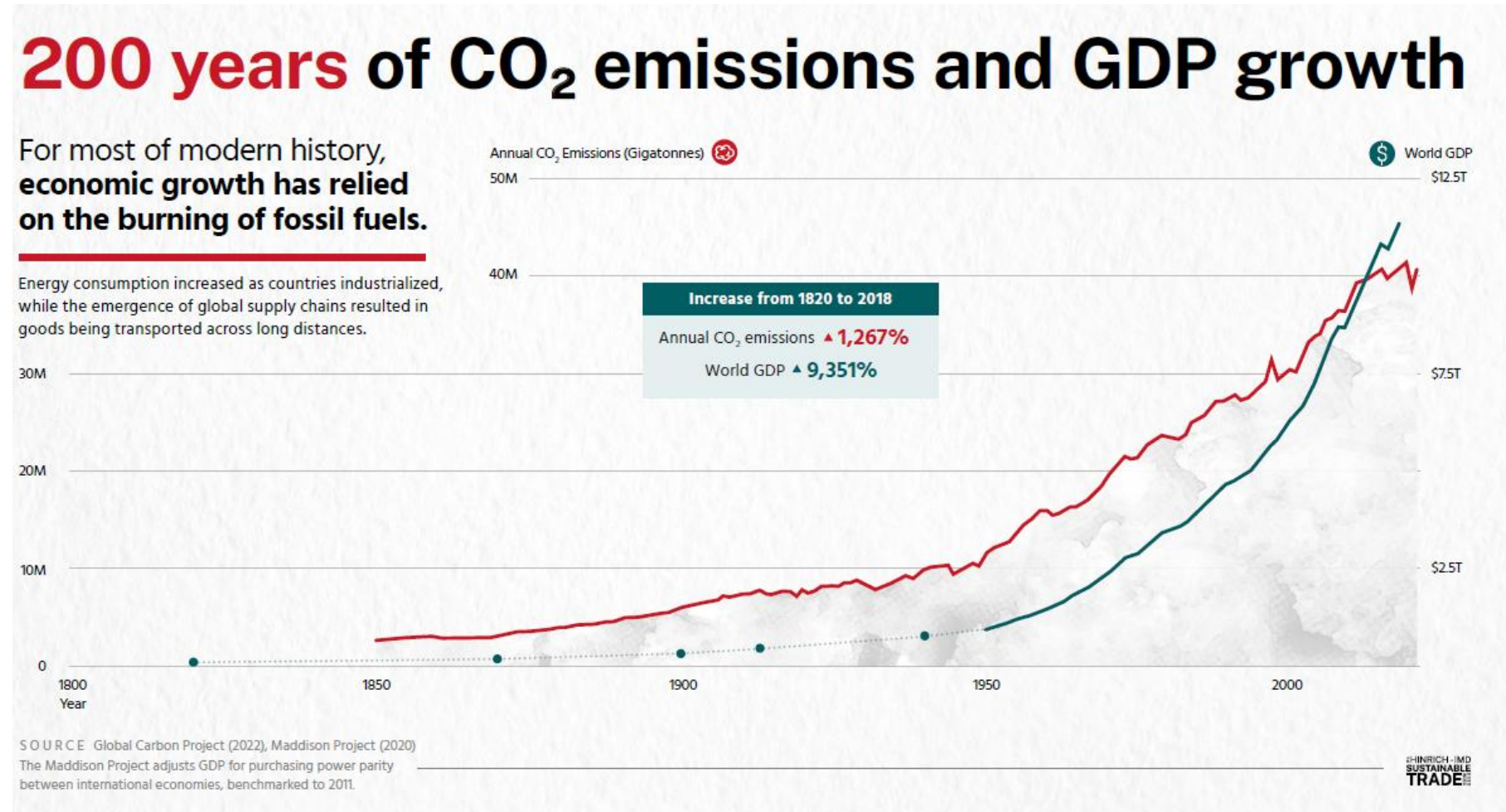
Why Carbon Markets Matter

- Market-driven finance unlocks investment and creates financial value to ecosystem services from forests and other ecosystems



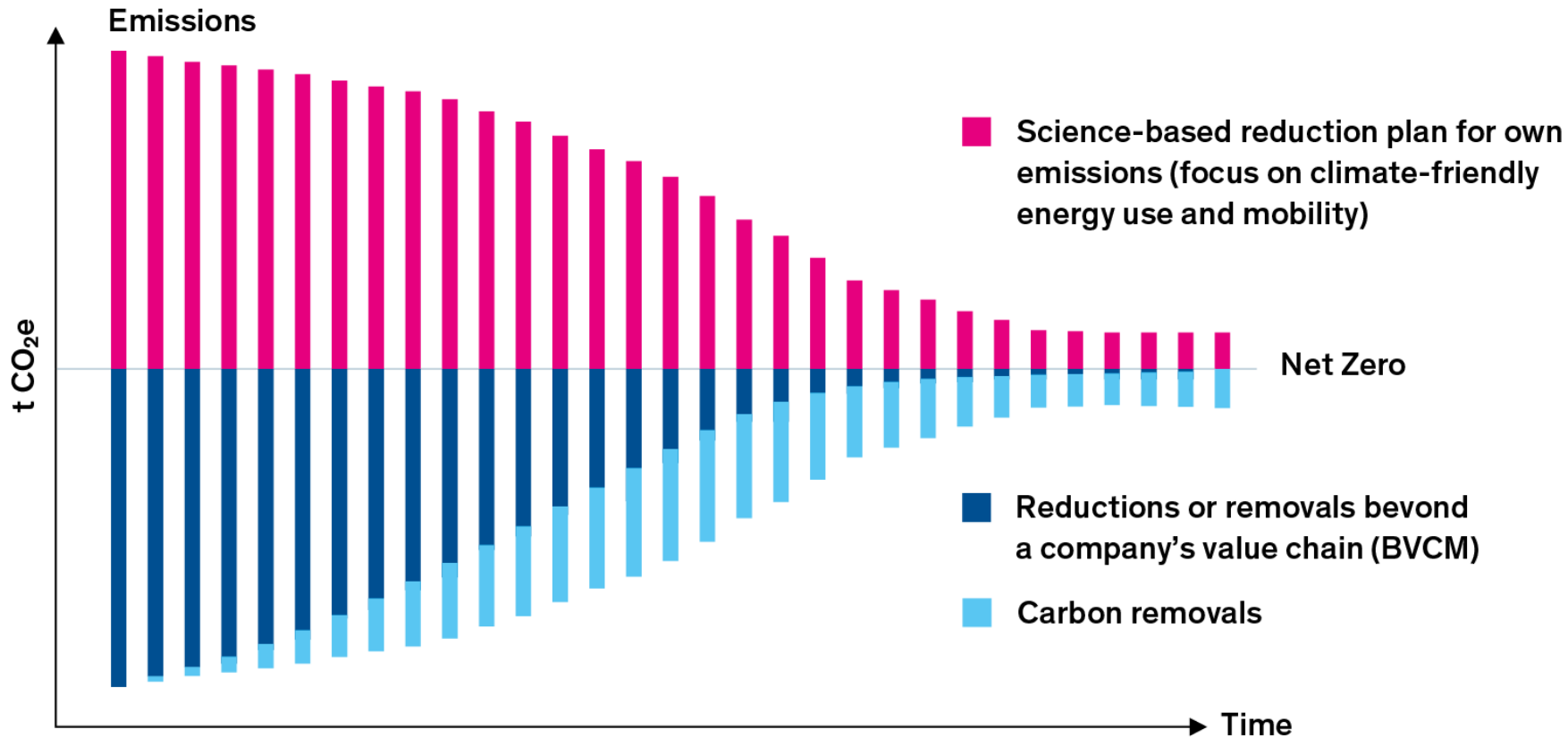
Why Carbon Markets Matter

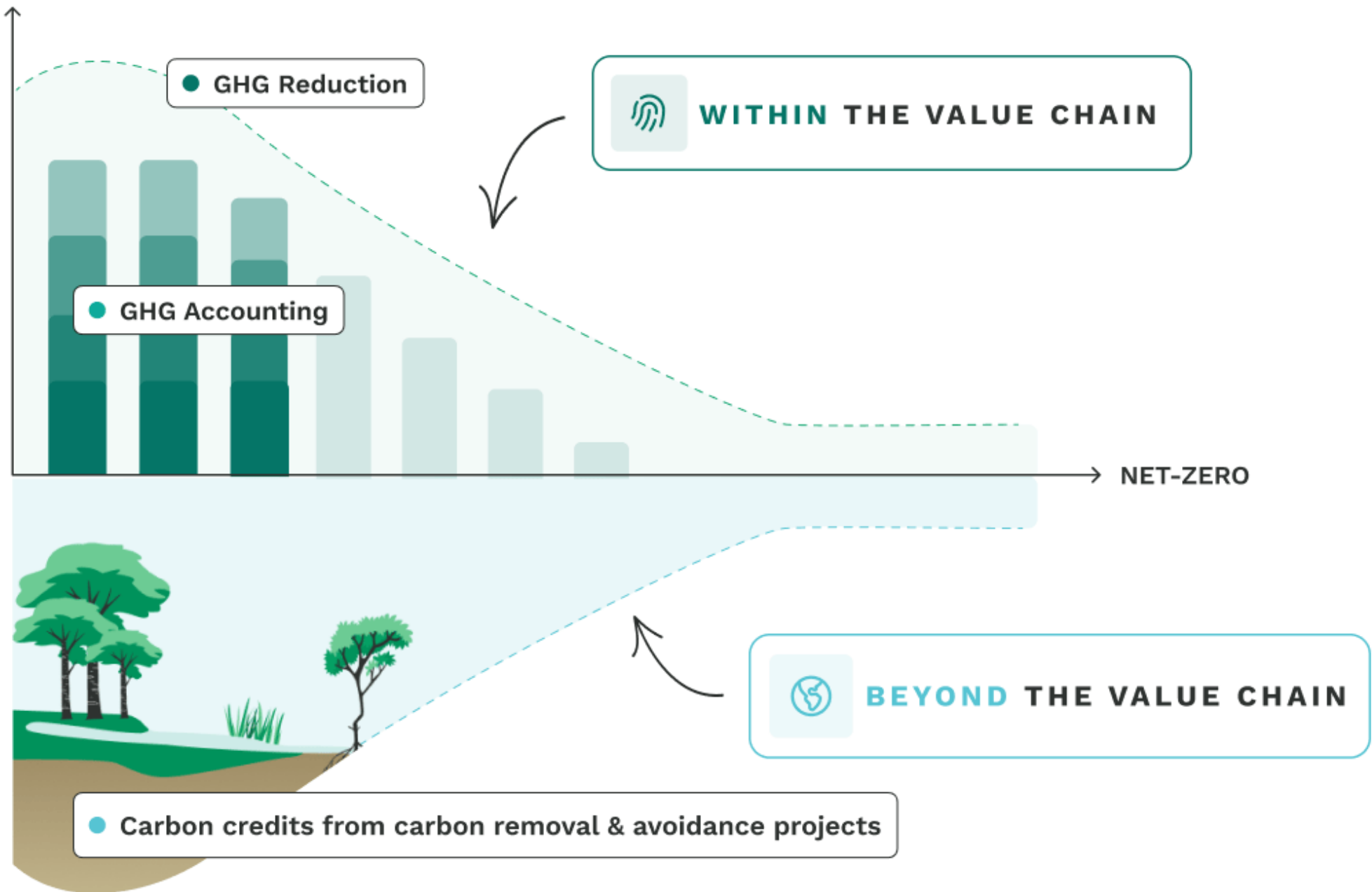
- The global economy today depends highly on industries that generate GHG emissions







Why Carbon Markets Matter

High integrity carbon credits can accelerate the transition to Net Zero

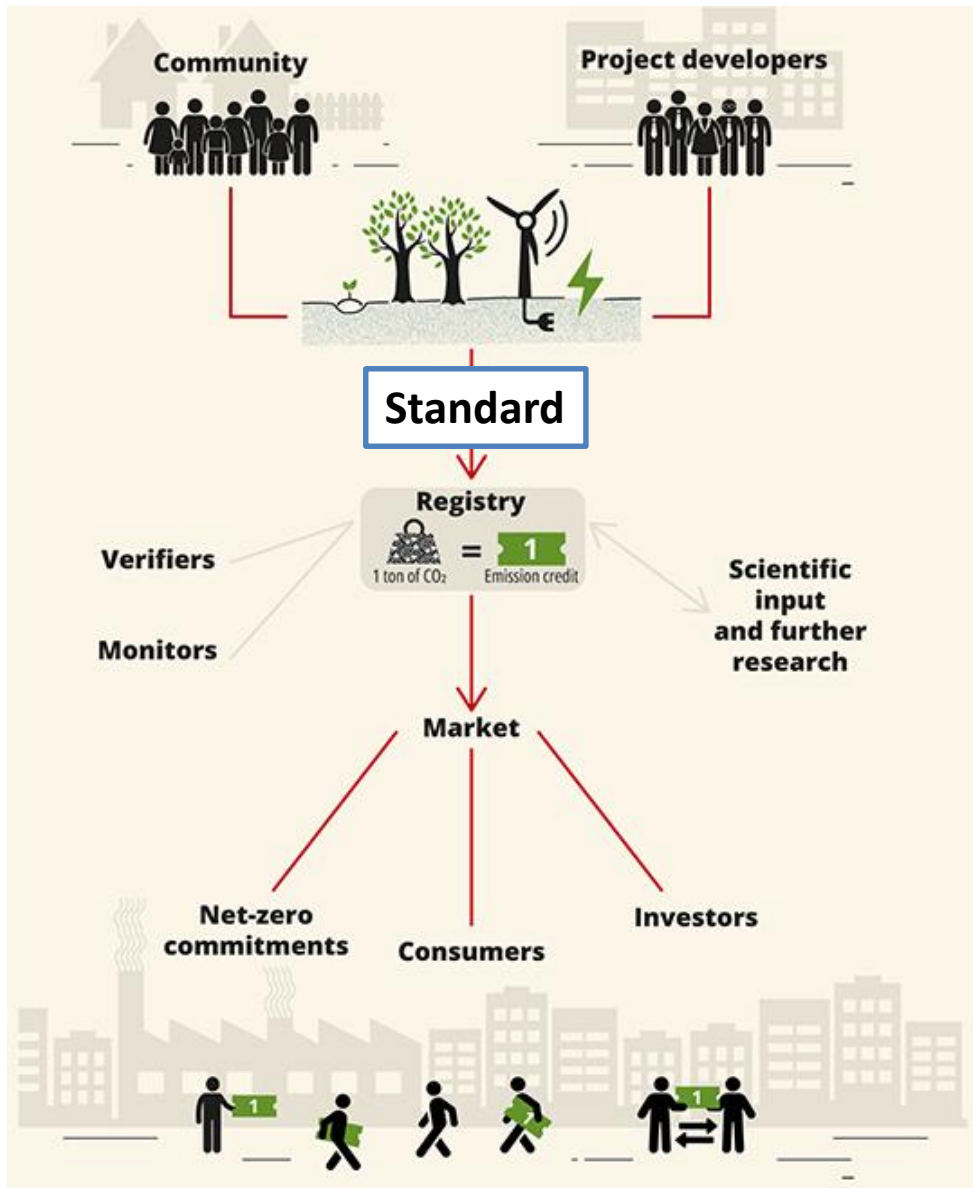




Voluntary vs. Compliance Carbon Markets

Voluntary		Compliance	
LEGAL REQUIREMENT		Yes	(e.g., Art 6 EU ETS)
BUYERS			Governments, regulated entities
STANDARDS		UNFGCC	UNFCCC national reig.
FLEXIBILITY	High	Limited by law	

VCM Ecosystem Overview



- Community or landowner: Holds the rights to the carbon, decides on the activities to be implemented
- Project Developer: designs & implements the project
- Standard Body: sets the rules (e.g., Verra)
- Verifier: independent entity for MRV audits
- Registry: issues and tracks carbon credits
- Buyer: company or individual offsetting emissions

Art 6 of Paris Agreement Overview

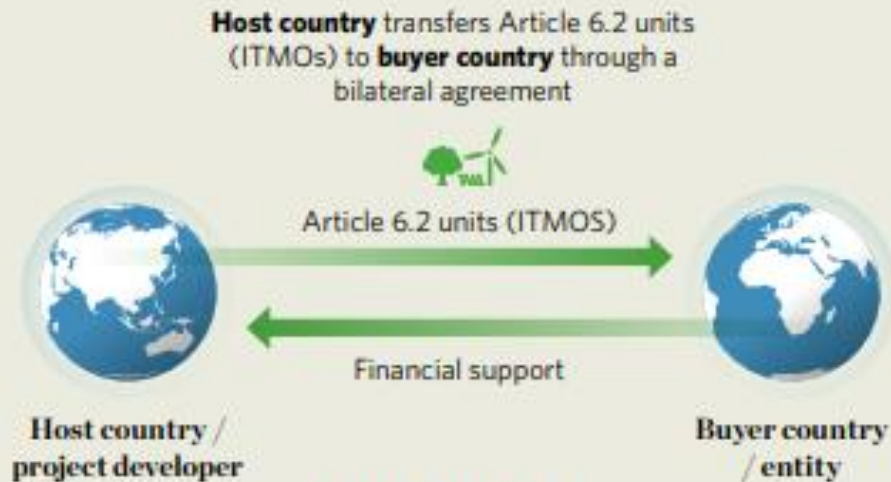


Figure 1: Article 6.2

Article 6.2
(market)

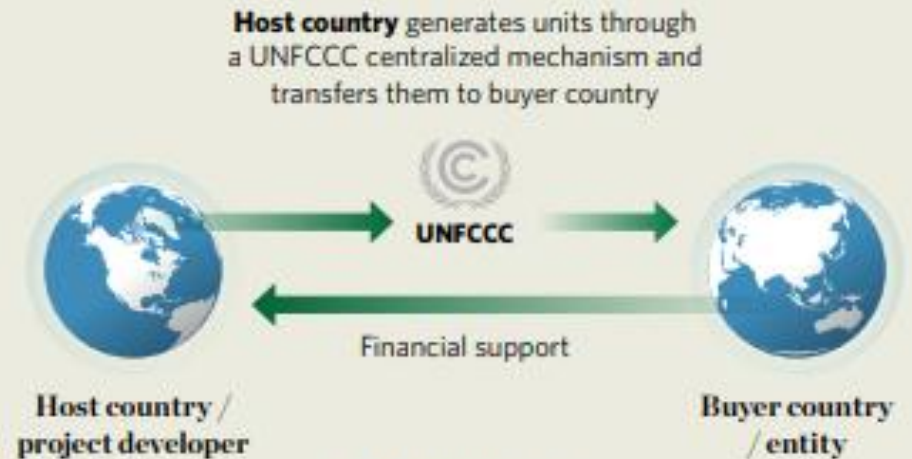
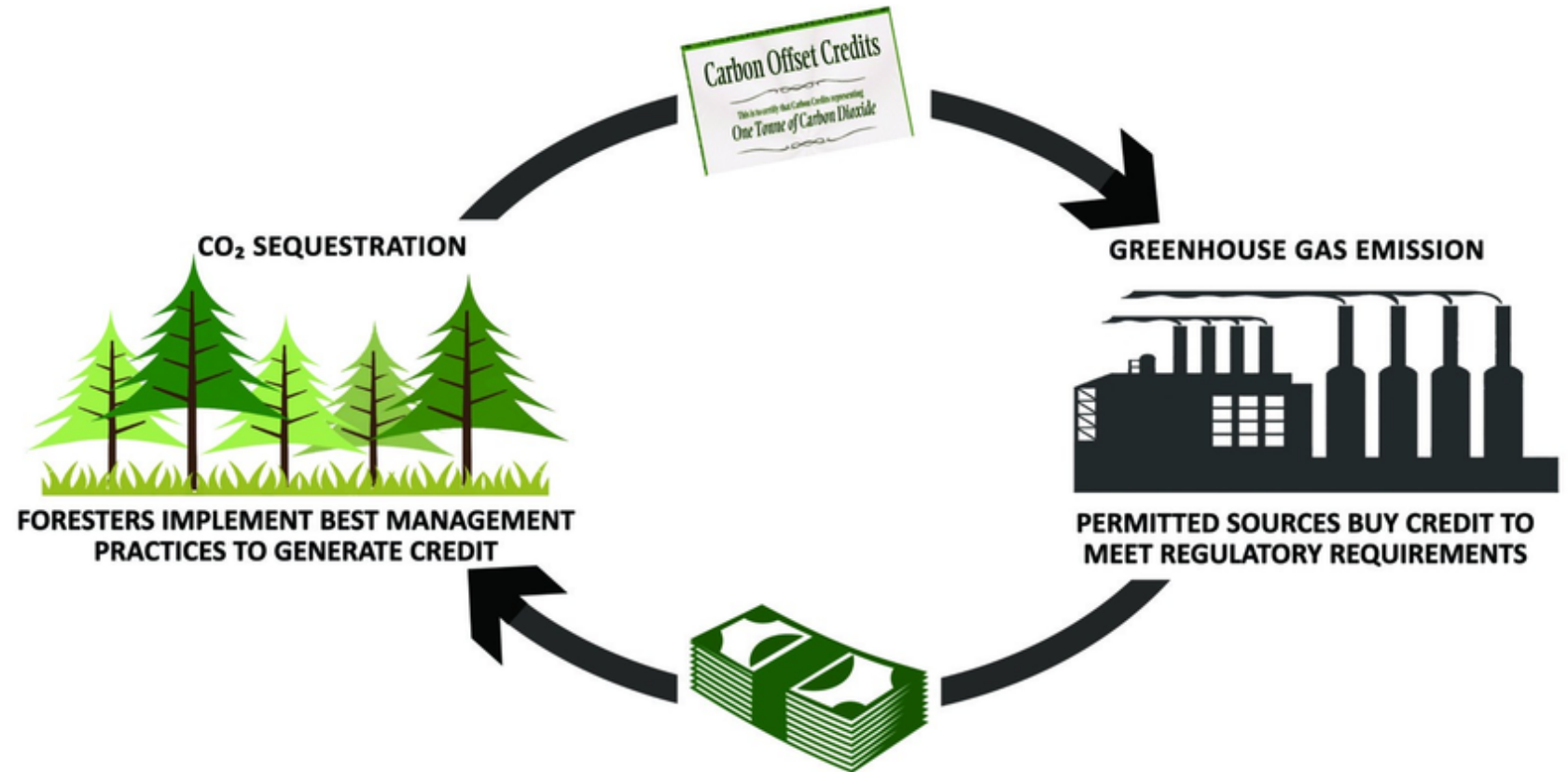


Figure 2: Article 6.4

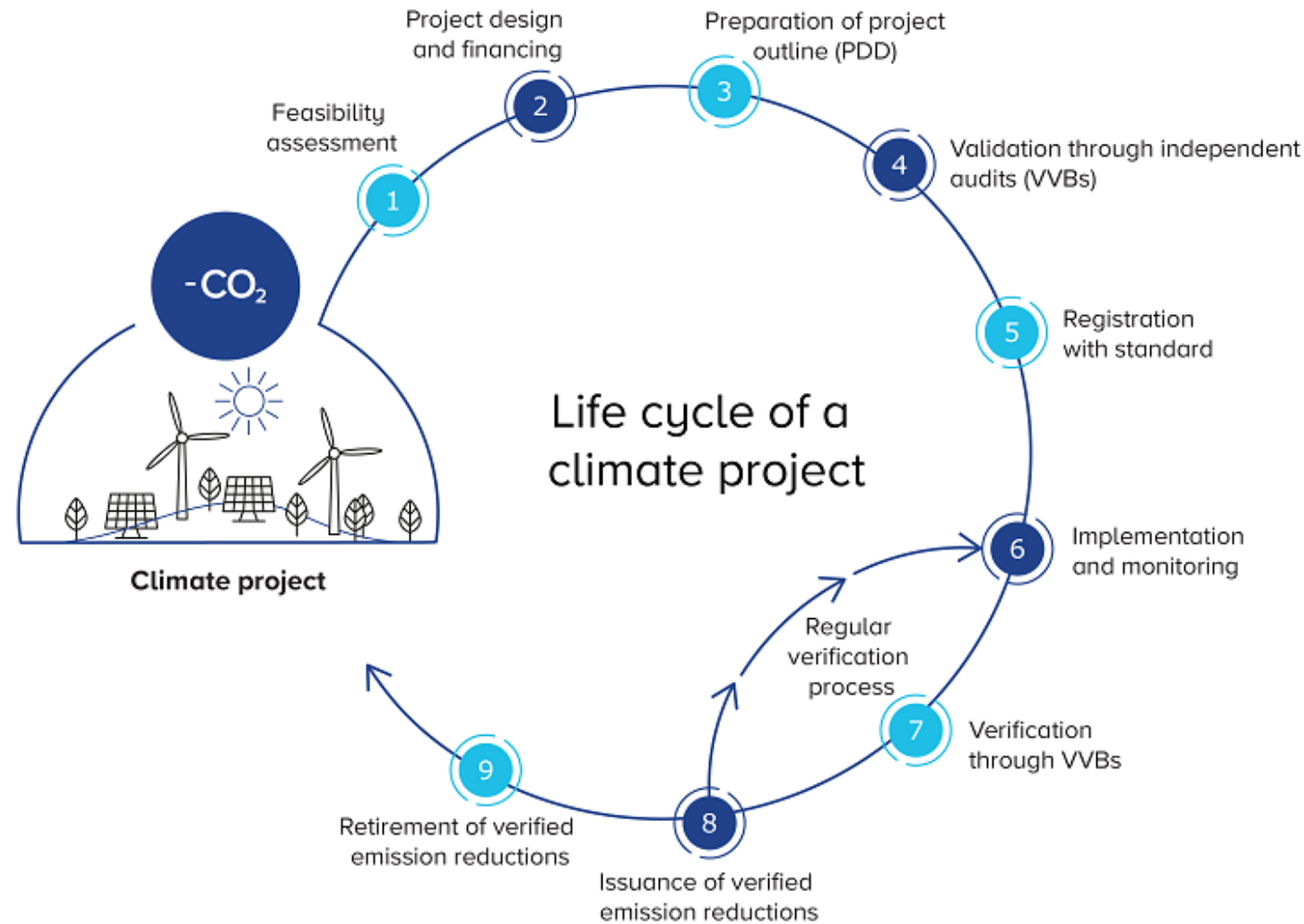
Article 6.4
(market and non-market³)

How Carbon Credits Work

- 1 credit = 1 tonne CO₂e avoided or removed
- Credits issued after verified reduction/removal
- Buyers use credits to offset emissions
- Projects earn revenue from credit sales

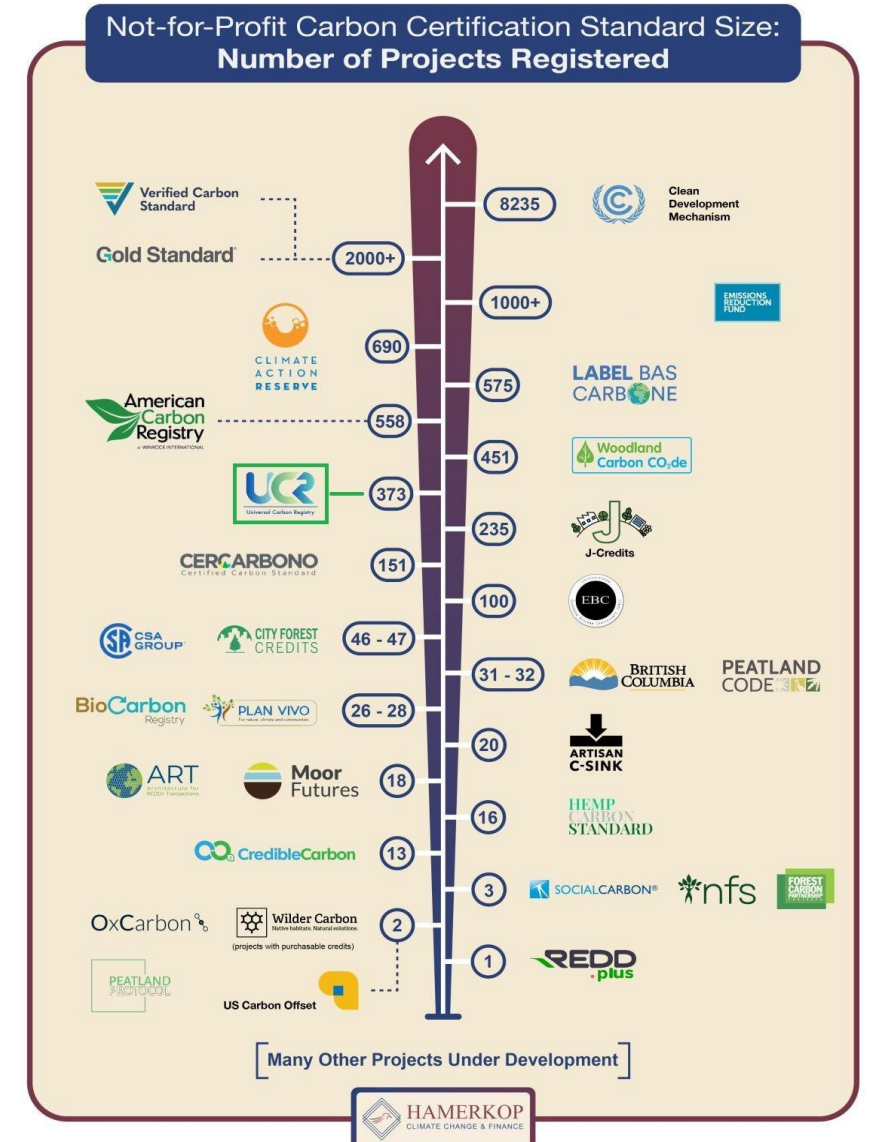


The Project Cycle in the VCM



Standards in the VCM

- Verra (VCS): most widely used standard
- Gold Standard: strong on co-benefits
- Plan Vivo: focus on smallholders & communities
- ART/TREES, VCS JNR: jurisdictional REDD+ standard



HOW DO DIFFERENT SYSTEMS RELATE TO EACH OTHER?

**** THIS TABLE CLARIFIES HOW DIFFERENT SYSTEMS ARE LINKED. IT DOES NOT IMPLY THAT CMW SUPPORTS ALL THE COMBINATIONS PRESENTED. FOR EXAMPLE, CMW DOES NOT BELIEVE THAT ISSUING REDD+ CREDITS FOR USE AS OFFSETS IS APPROPRIATE.**

CDM	CLEAN DEVELOPMENT MECHANISM
CER	CERTIFIED EMISSION REDUCTION
JCI	JOINT IMPLEMENTATION
ERU	EMISSION REDUCTION UNIT
IET	INTERNATIONAL EMISSIONS TRADING
AAU	ASSIGNED AMOUNT UNIT
AG.4CER	ARTICLE 6.4 EMISSION REDUCTION
ITMO	INTERNATIONALLY TRANSFERRED MITIGATION OUTCOME
VCS	VOLUNTARY CARBON STANDARD
VCU	VERIFIED CARBON UNIT
GS	GOLD STANDARD
VER	VERIFIED EMISSION REDUCTION
REDO+	REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION, PLUS THE SUSTAINABLE MANAGEMENT OF FORESTS, AND THE CONSERVATION AND ENHANCEMENT OF FOREST CARBON STOCKS
CORSIA	CARBON OFFSETTING AND REDUCTION SCHEME FOR INTERNATIONAL AVIATION
UN	UNITED NATIONS

[illegible]

Types of Projects in the VCM

VOLUNTARY CARBON MARKET

Reduction/Avoidance Credits

Carbon Credits that represent reduced or avoided emissions

Removal Credits

Carbon Credits that represent captured/removed emissions

Technology Based

- Renewable Energy
- Methane Collection
- Industrial Pollutant
- Household Devices

Nature Based

- Avoided Deforestation
- Wetland Management
- No-till Farming
- Methane from Lifestock

Technology Based

- Direct Air Capture
- Mineralisation
- Carbon Capture and Storage

Nature Based

- Reforestation
- Afforestation
- Soil Sequestration
- Wetland Restoration

MRV: Measurement, Reporting, Verification

Traditional MRV

Monitoring



Tracking project success and optimizing for impact

Reporting



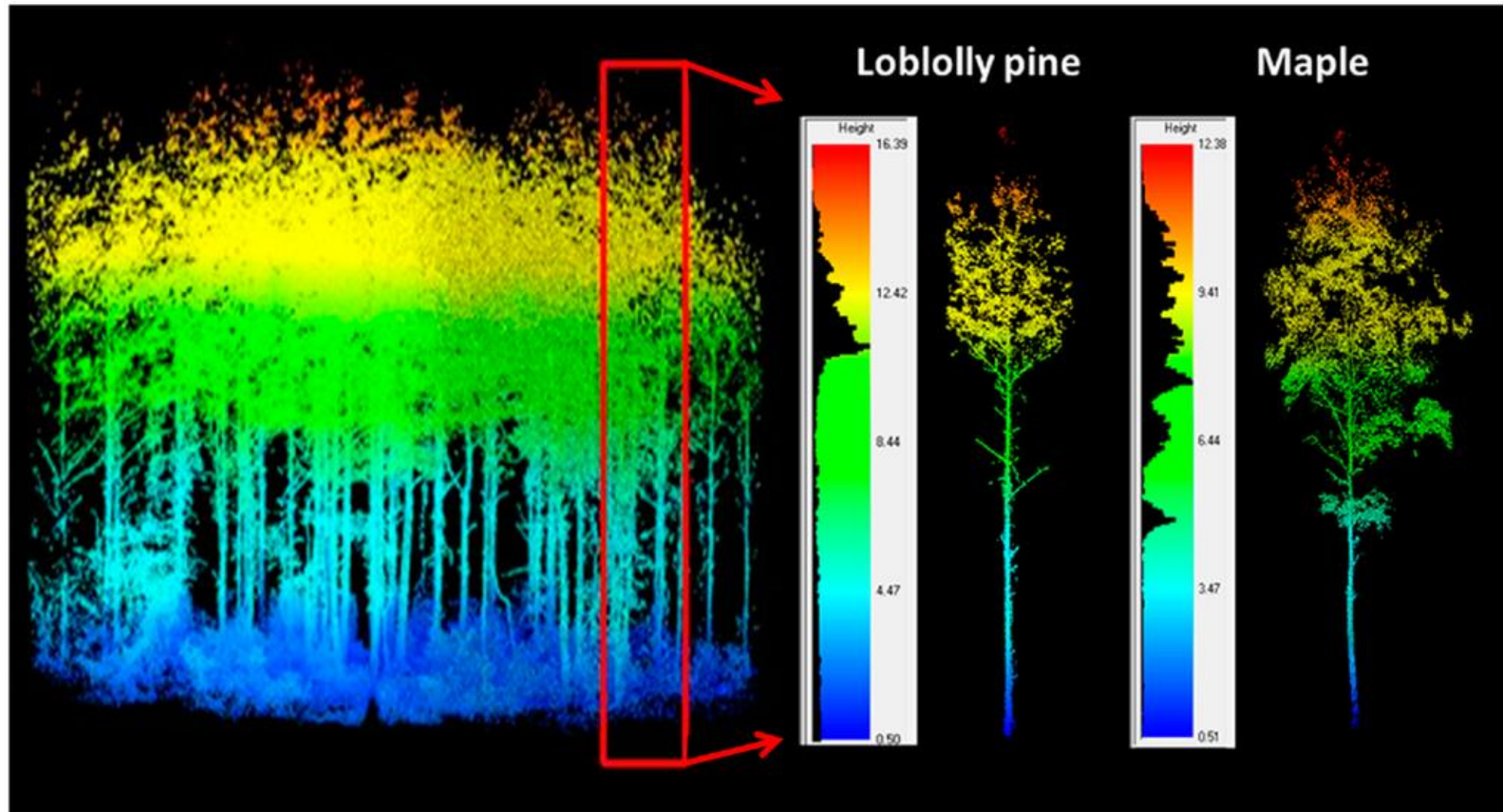
Summarizing data and impacts for transparency and verification

Verification

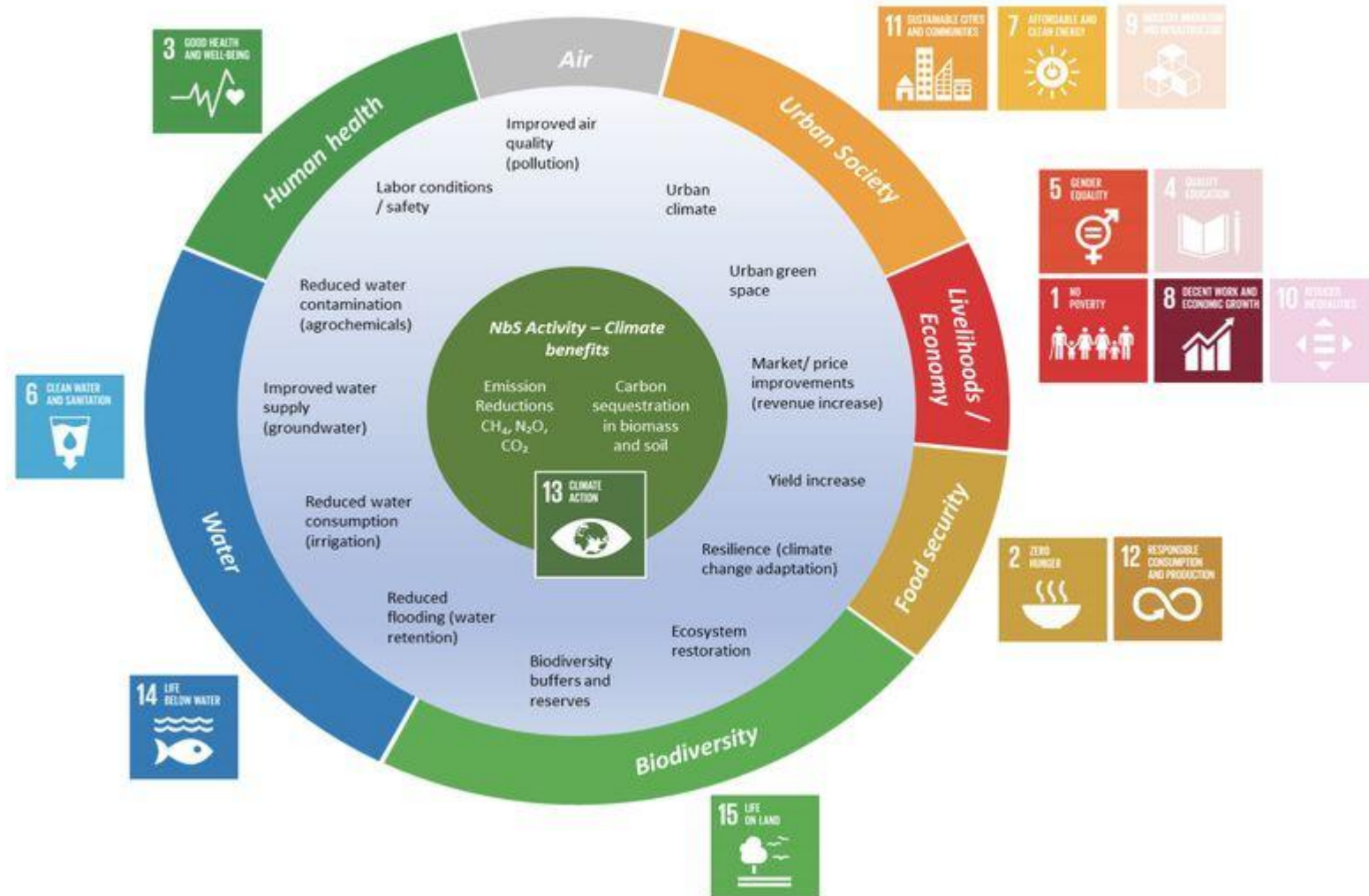


Independent checks to ensure accuracy and standard compliance

dMRV: DIGITAL MRV

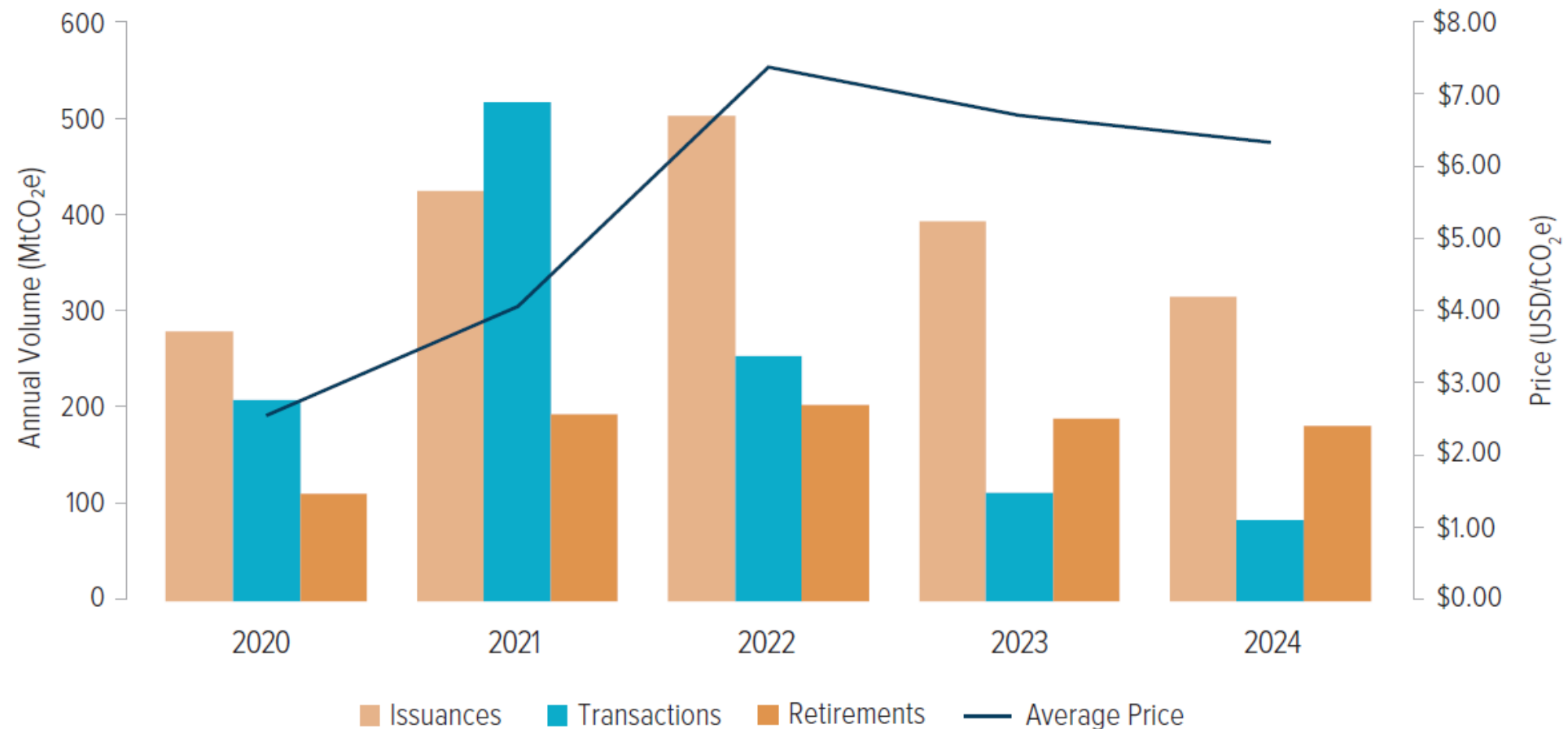


Co-benefits and SDGs



Carbon Credit Prices and Market Trends

Figure 1. Overview of Voluntary Carbon Market Issuances, Transactions, Retirements, and Average Price, 2020-2024

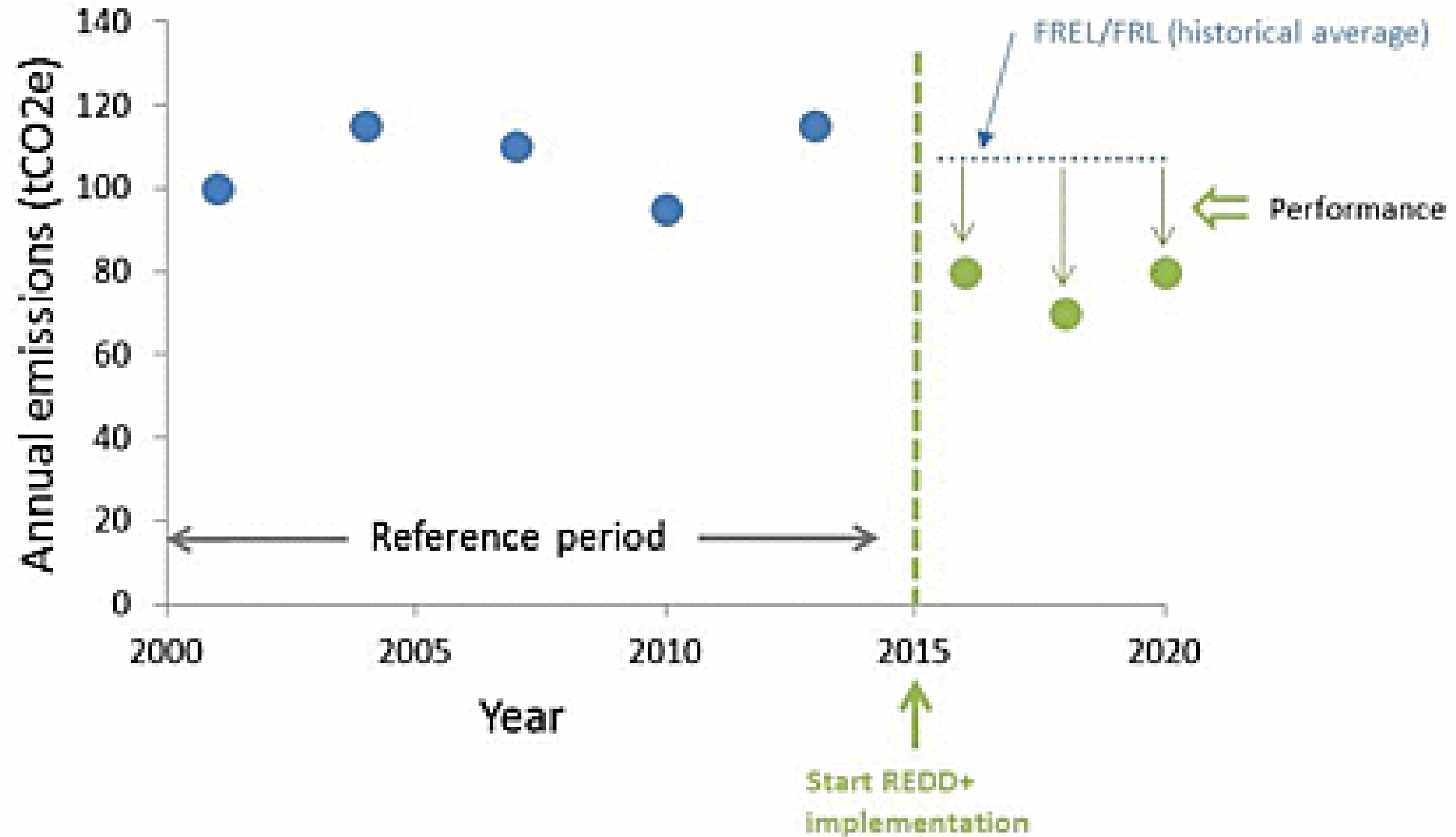


Forestry Project Types in the VCM and prices

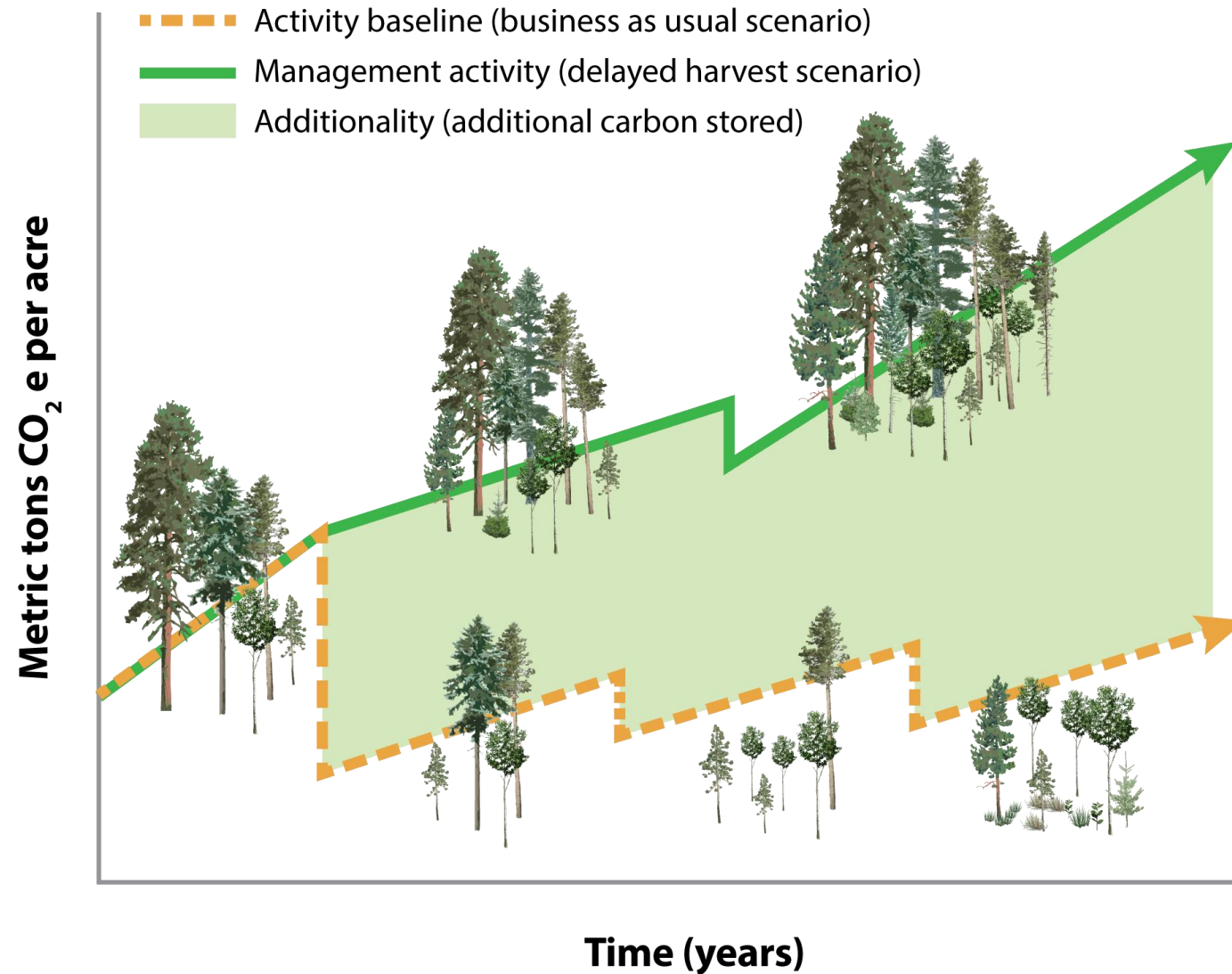
Table 4. VCM Transaction Volumes, Values, and Prices by Forestry and Land Use Project Types, 2023-2024

	2023			2024			Percent Change		
Project Cluster	Volume (MtCO ₂ e)	Value (USD)	Price (USD)	Volume (MtCO ₂ e)	Value (USD)	Price (USD)	Volume	Value	Price
REDD+	28.2	\$222.3M	\$7.87	13.6	\$82.1M	\$6.03	-52%	-63%	-23%
Improved Forest Management (IFM)	2.6	\$41.9M	\$16.2	8.8	\$132.3M	\$14.97	242%	216%	-8%
Afforestation-Reforestation and Revegetation (ARR)	4.8	\$82.4M	\$17.15	3.8	\$77.7M	\$20.44	-21%	-6%	19%
Agroforestry	0.7	\$8.1M	\$11.58	0.6	\$8.3M	\$14.11	-17%	1%	22%
Blue Carbon	0.4	\$3.2M	\$8.33	0.2	\$5.2M	\$29.72	-54%	64%	257%

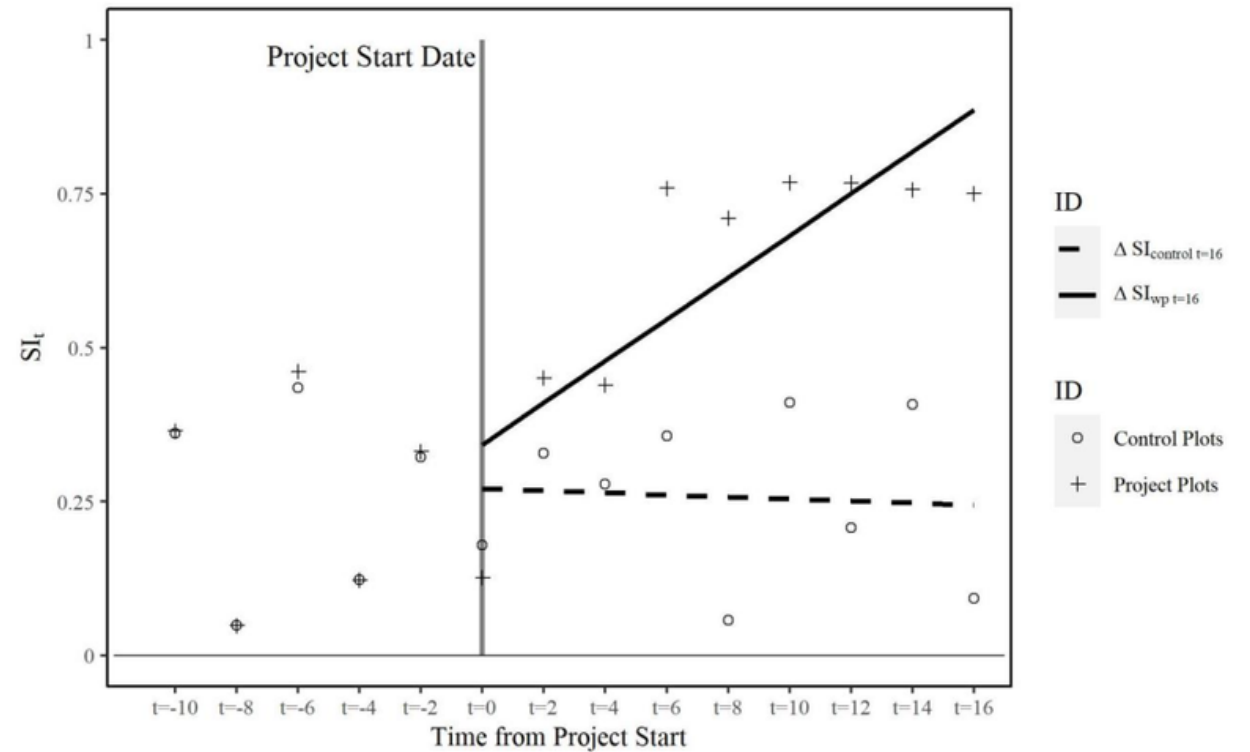
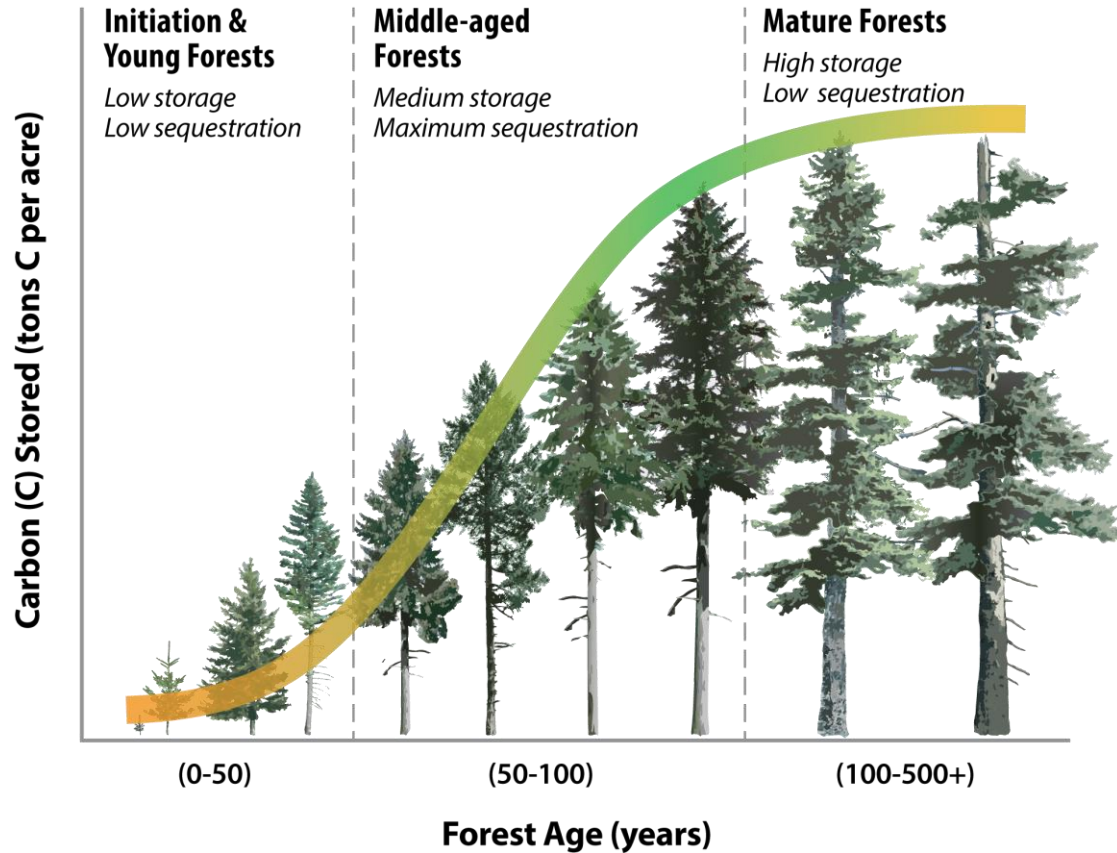
REDD+ projects



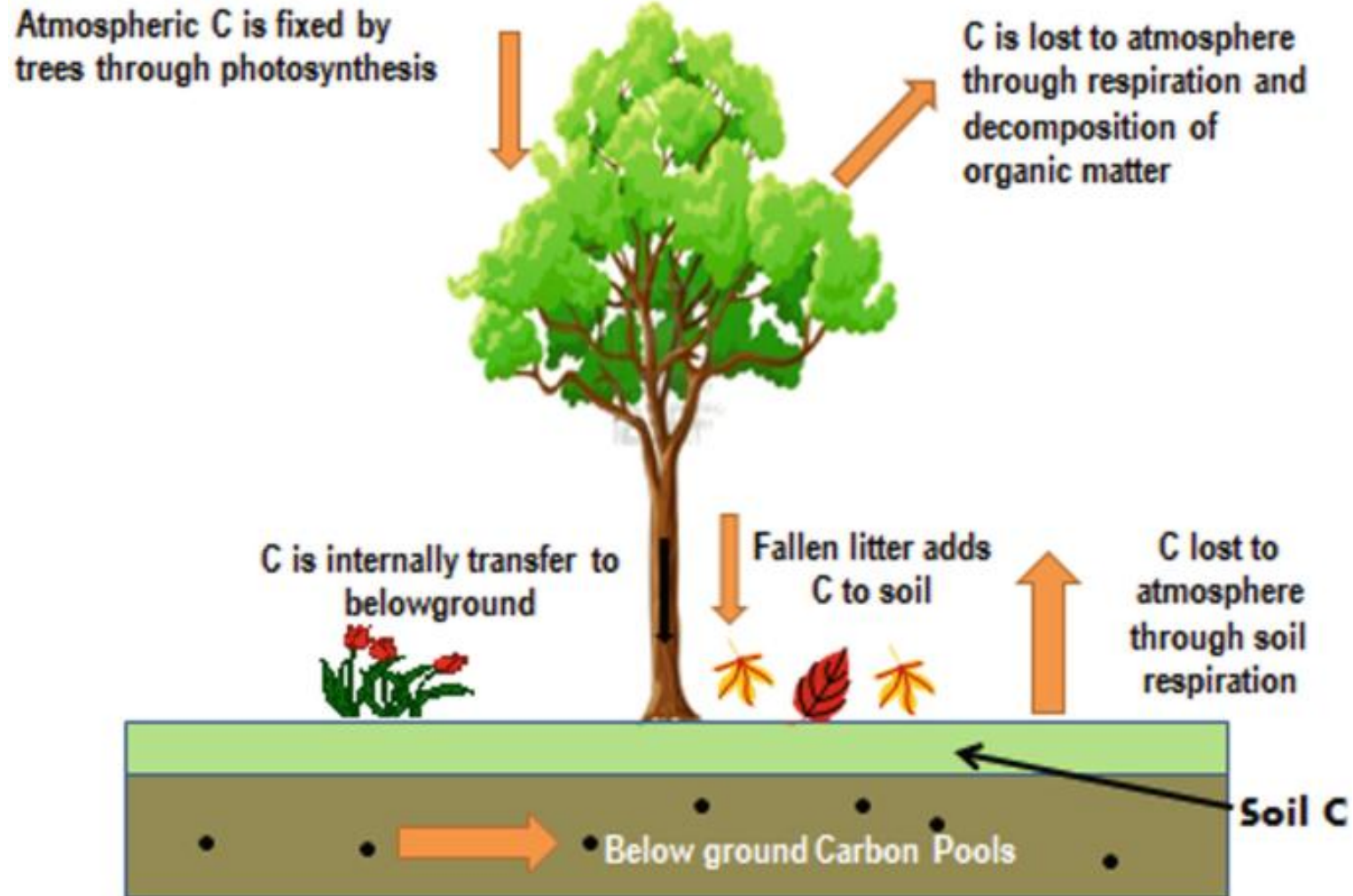
Improved Forest Management (IFM)



Afforestation Reforestation and Revegetation

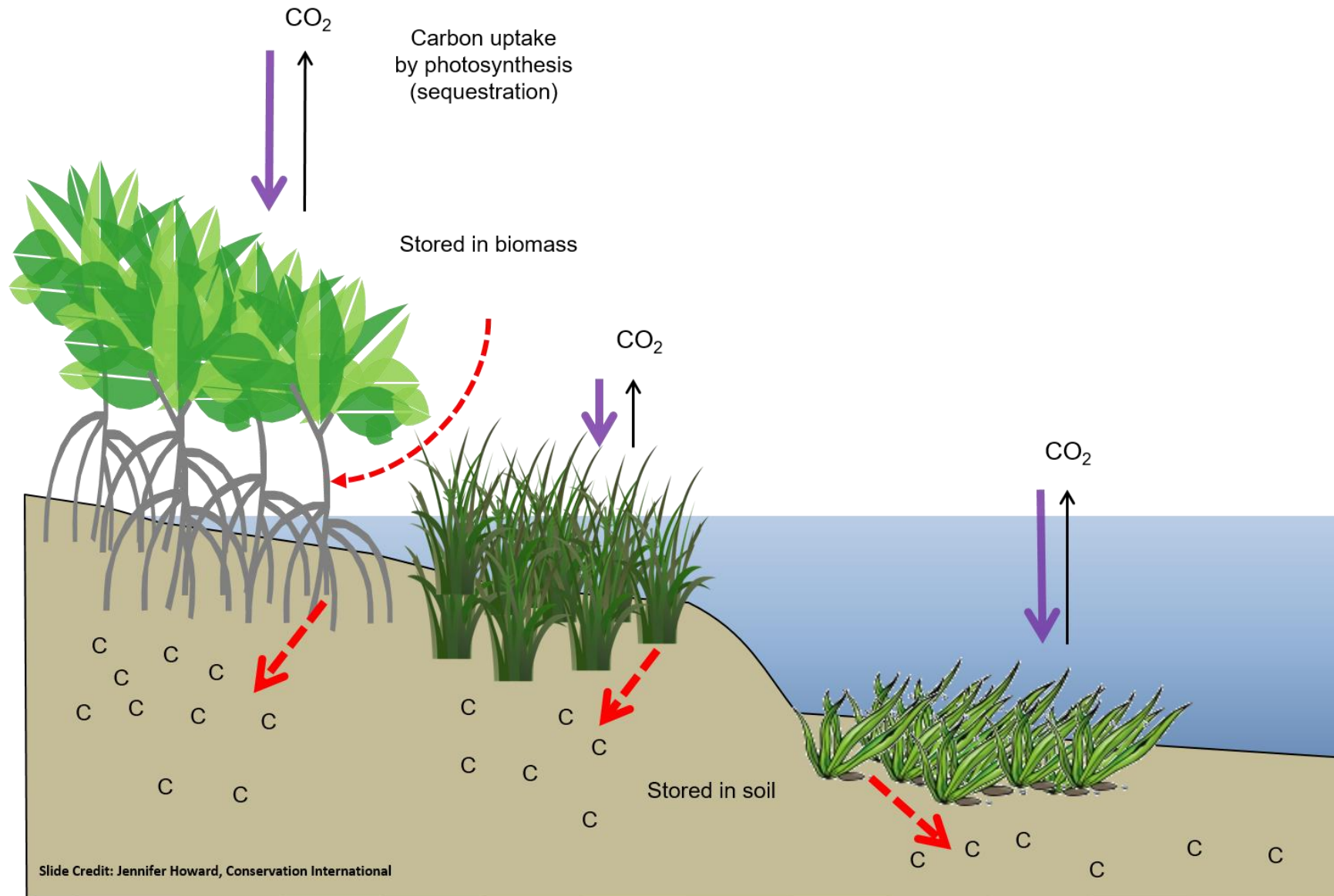


Agroforestry



C Sequestration in Agroforestry

Blue Carbon



Role of Local Communities

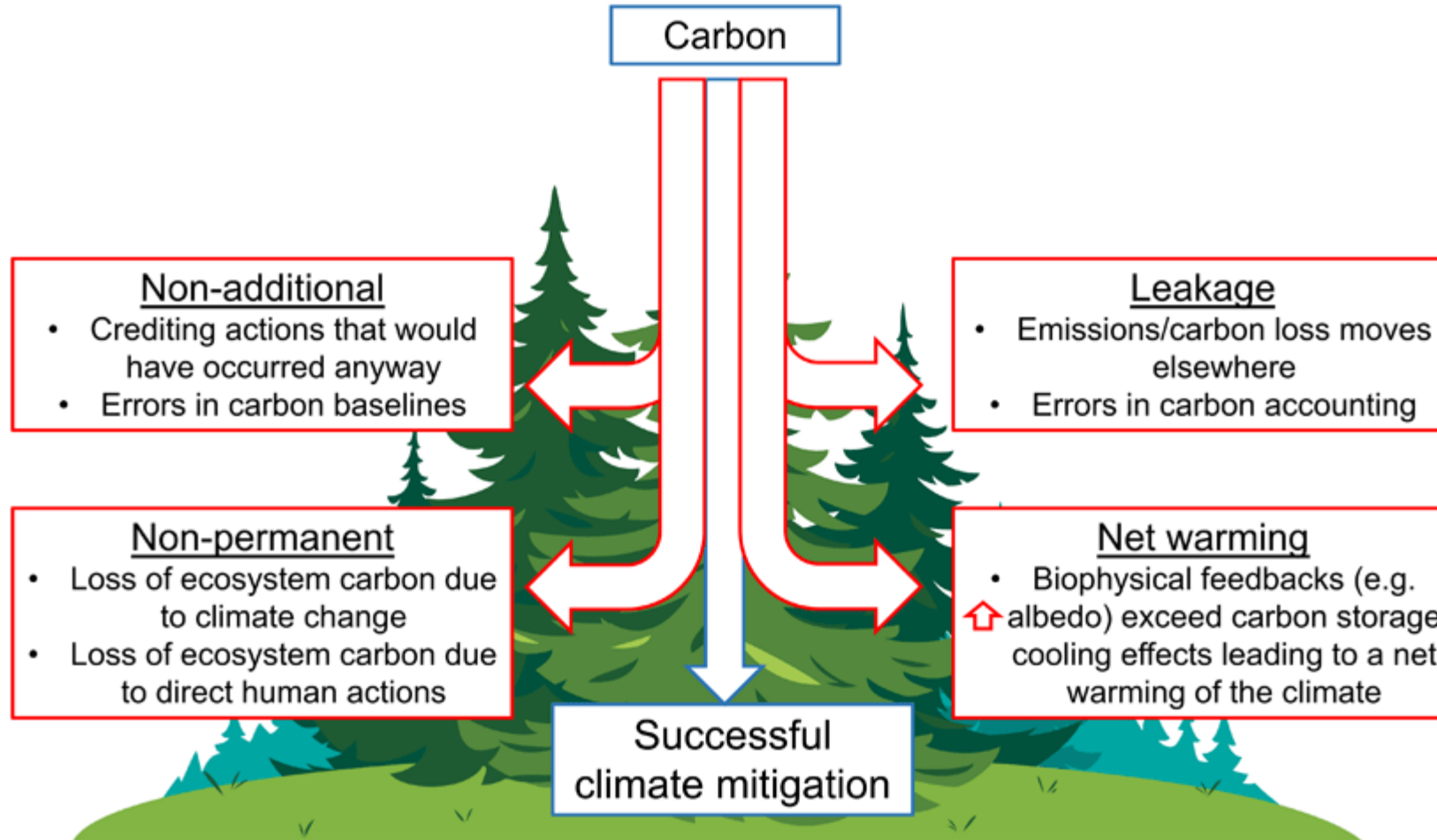


Extensive FPIC process and benefit sharing



Direct involvement in project implementation and decision making

Risks in Forestry Carbon Projects



Criticism of VCM

- **Lack of Transparency and Verification:**

The VCM is criticized for inadequate transparency and difficulty in verifying the authenticity of carbon credits.

- **Integrity Issues:**

Concerns exist regarding the credibility of some carbon offset projects, particularly REDD+ initiatives, with accusations of inflated baselines and failure to deliver promised emissions reductions.

- **Greenwashing Concerns:**

Some critics argue that the VCM enables greenwashing, where companies use carbon credits to appear environmentally responsible without genuinely reducing their own emissions.

- **Fragmentation and Lack of Standardization:**

The VCM suffers from a lack of standardized methodologies and risk assessment, hindering its ability to attract investment and build trust.

- **Impact on Decarbonization Efforts:**

Some argue that the VCM might disincentivize direct decarbonization efforts by allowing companies to offset their emissions instead of investing in long-term solution



The Future of VCM

- **Increased Scrutiny and Demand for High-Integrity Credits:**

Growing media scrutiny and investor expectations are pushing the market towards greater transparency and accountability, particularly for high-quality credits.

- **Strengthened Standards and Methodologies:**

Organizations like the [Integrity Council for the Voluntary Carbon Market \(ICVCM\)](#) are developing core carbon principles to improve credit quality and establish a "standard of standards".

- **Technological Innovation:**

Blockchain, AI and other technologies are being explored to enhance transparency, traceability, and efficiency in the VCM.

- **Market Growth Driven by High-Integrity Credits:**

Despite the challenges, the VCM is projected to grow, with a focus on high-quality credits that meet stringent verification and additionality standards.

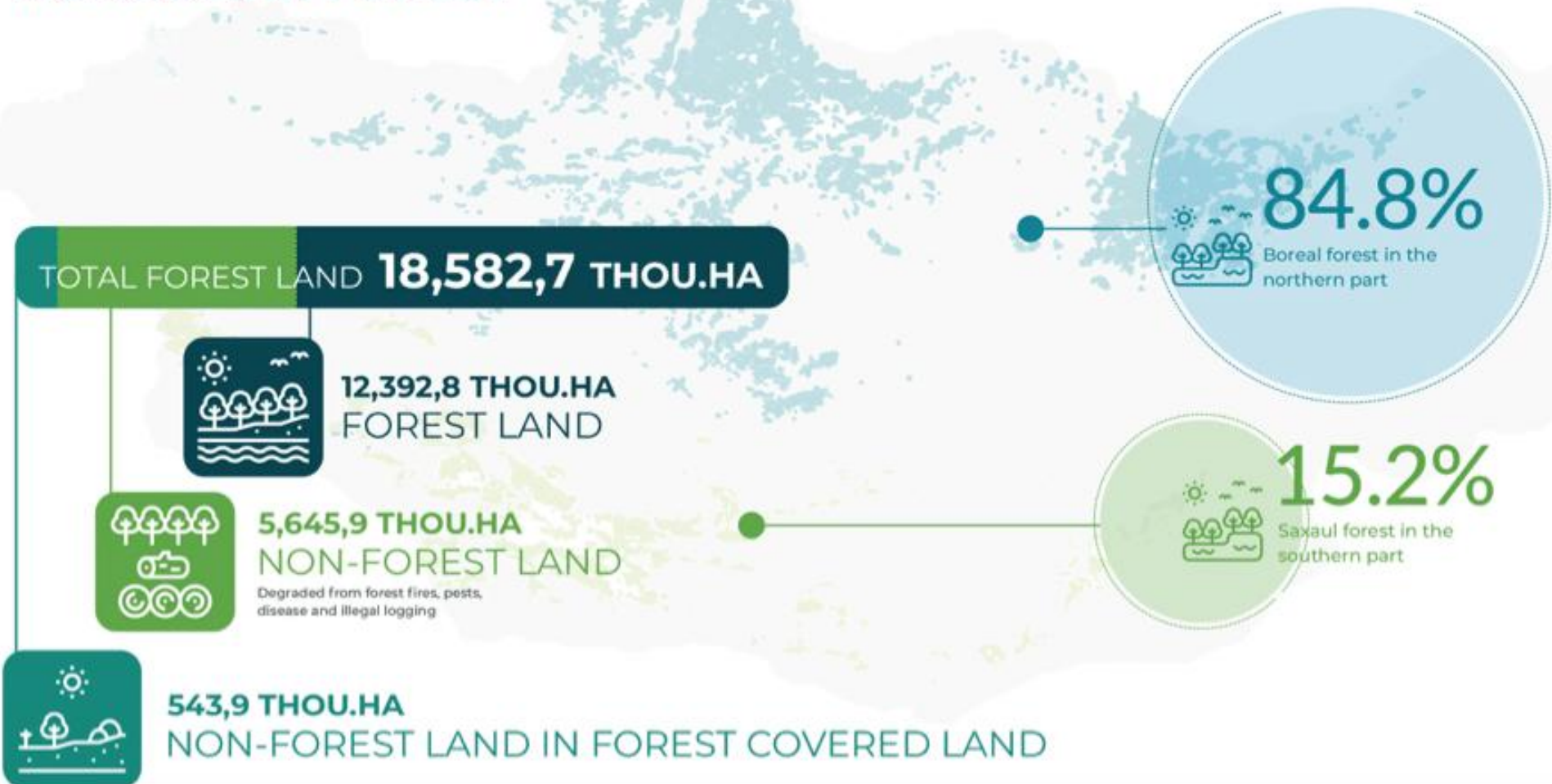
- **Collaboration and Policy Support:**

Policymakers and market participants are working to address the challenges and unlock the VCM's potential, including establishing clear standards and promoting collaboration.



Mongolia's Forest Potential in the VCM

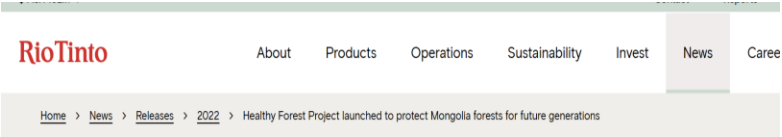
MONGOLIAN FOREST



Forestry VCM Projects in Mongolia



**Mongolian
Forest Carbon
Program**



Healthy Forest Project launched to protect Mongolia forests for future generations

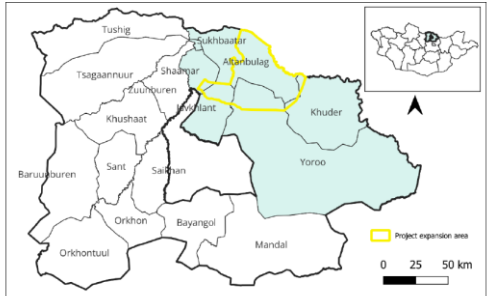
23 September 2022



BOREAL CARBON – PROJECT GAMMA I

Project title	Boreal Carbon – Project Gamma I
Project ID	5446
Crediting period	01-May-2025 to 30-April-2065
Original date of issue	15-02-2025
Most recent date of issue	15-02-2025
Version	1.0
VCS Standard Version	VCS Standard v4.7
Prepared by	Boreal Carbon Forestry III 20 Cecil Street, #05-03 Plus Singapore, 049705 Jessica Vardy jessicavardy@borealcompany.com

Figure 7 Project location in Selenge (large picture) and Mongolia (small picture)



Asia Pacific > Singapore firm launches massive reforestation project in Mongolia

Singapore firm launches massive reforestation project in Mongolia

Published 02:14 on April 7, 2025 / Last updated at 02:14 on April 7, 2025 / Arshreet Singh / Asia Pacific, Biodiversity, Nature-based, Other APAC, Voluntary

A Singapore-based company has embarked on what it claims is the world's largest boreal reforestation project, aiming to restore 750,000 hectares of degraded forest land in northern Mongolia.

Other Carbon Market Development in Mongolia

News ▾ Prices ▾ Data ▾ Analyser

Korea to upgrade Mongolian yurts in exchange for Article 6 credits

[Article 6](#)
29 May 2025

The government of South Korea will pay for retrofitting traditional tents in



Food and Agriculture
Organization of the
United Nations



POLICY BRIEF – OCTOBER 2024


**Scaling Up Carbon Sequestration
in Mongolian Rangelands through
a Carbon Crediting and Market
Mechanism**

GOVERNANCE COUNTRIES

Readiness Proposal

Advancing carbon market
readiness in Mongolia

with the United Nations Development Programme (UNDP)
for Mongolia
30 March 2025



GREEN
CLIMATE
FUND

Wrap-Up and Key Takeaways

- VCM offers opportunity for climate and development co-benefits
- Integrity and transparency are essential
- Mongolia has high potential in the nature-based market