



The Core Carbon Principles

Impact Report 2025

Advancing High-Integrity Climate Action at Scale

December 2025



Contents

Acknowledgements

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	Foreword	4
	Executive Summary	6
-∘ Chapter 1	Raising the Bar Assessments and Assurance	12
⁻ ○ Chapter 2	Market Movements The Rise of High-Integrity Credits	20
–∘ Chapter 3	Design to Delivery Approved Methodologies and Case Studies	24
–o Chapter 4	Policy to Practice Driving Systemic Change	60
- Chapter 5	Collective Action Voices and Partnerships	72
−o Chapter 6	Improving Impact Research, Science and Innovation	78
- •	Conclusion	88



Annette L. Nazareth,
Chair of the Governing Board,
Integrity Council for the
Voluntary Carbon Market

Foreword

When the Integrity Council was founded, we were guided by a single conviction: that integrity must become the cornerstone of carbon markets if they are to fulfil their potential to deliver climate impact at scale. Four years on, that conviction has begun to bear fruit - at a time when the urgency to accelerate climate action has never been greater.

In a remarkably short time, the voluntary carbon market has been reshaped around the standards, safeguards, and governance systems introduced in our Core Carbon Principles
(CCPs). This transformation has been steered by the ICVCM's diverse, multidisciplinary Governing Board, ensuring robust governance and assurance for integrity. What began as an aspiration — to create a global threshold for high-integrity carbon credits — is now a working reality. The CCPs and Assessment Framework have moved from design to deployment: defining quality, strengthening trust, and enabling the flow of finance to the projects and communities that need it most.

Today, buyers, regulators, and policymakers across the world are increasingly recognising the Core Carbon Principles as the reference point for credibility. Governments are embedding the principles into their national carbon market frameworks. Carbon-crediting programs have reformed their governance, strengthened their methodologies, and aligned their oversight procedures to meet the CCP

threshold. Developers are designing projects that anticipate CCP approval from the outset. Across the market, integrity has become the organising principle — the measure by which value is determined and confidence restored.

This progress has had tangible results. Seven programs and 36 methodologies have been approved as meeting the rigorous requirements of the Core Carbon Principles, underpinning confidence in the market's transformation. Demand for CCP-labelled credits has grown steadily, commanding price premiums that reflect buyers' renewed trust. Policymakers, multilateral institutions, and standard-setters have incorporated the CCPs into their own frameworks, recognising the Integrity Council's role in building coherence across voluntary and compliance markets. These are not abstract reforms; they are real outcomes reshaping the incentives, behaviours, and expectations of market actors everywhere.



The Core Carbon Principles Impact Report 2025 | 5



The impact of this work can be seen most clearly on the ground. Projects using CCP-Approved methodologies are reducing and removing polluting gases from the atmosphere, restoring ecosystems, improving livelihoods, and strengthening resilience. In Burkina Faso, community-led reforestation under the Tond Tenga project is regenerating degraded land and creating new sources of income. In Tanzania, the Makame Savannah project is protecting dryland forests while supporting education, healthcare, and conservation jobs. These examples show that when integrity guides investment, the results reach far beyond carbon — to people, nature, and shared prosperity.

This progress has been built on collaboration. We work alongside governments, carboncrediting programs, project developers, Indigenous Peoples and local communities, scientists, civil society and investors. That collaboration will continue in the years ahead. Through our new Continuous Improvement Work Programs, we are convening leading experts and stakeholders to explore complex questions on transparency, scalability, and oversight, ensuring that the Assessment Framework evolves in step with the market's growth and technological change.

We are also proud to support the Indigenous Peoples and Local Communities Engagement Forum, a self-governed body created to elevate the voices, rights, and leadership of those who steward so much of the world's remaining intact ecosystems. Together, these initiatives reflect our belief that integrity is not a destination but an ongoing commitment to learning, inclusion, and innovation — one that will guide the next phase of our work.

The market's transformation is still unfolding, but its direction is now unmistakable. The Integrity Council has helped to lay the architecture of trust on which this market can grow. The foundations are firm. The challenge now is to build upon them with continued commitment and care — ensuring that integrity remains the bedrock for the ambition, confidence, and climate impact that lie ahead.

Annette L. Nazareth





The activities we carry out in the forest have brought in money that has been used to buy animals, food, pay school fees, pay for health care and other family expenses.

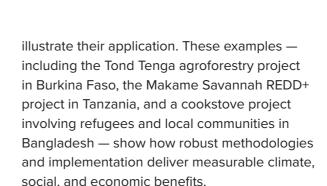


The Core Carbon Principles (CCPs) established by the Integrity Council for the Voluntary Carbon Market (ICVCM) are helping to shape a clearer global understanding of what a high-integrity carbon credit looks like. As of November 2025, 51 million carbon credits were using CCP-Approved methodologies, according to MSCI. The introduction of CCPlabelled credits into the market is increasing trust and accelerating climate action and sustainable development.

The Core Carbon Principles Impact Report 2025 provides a detailed overview of recent progress. It begins by explaining how the ICVCM, through its multi-stakeholder process, has assessed carbon-crediting programs and methodologies against the CCPs. Seven programs and 36 methodologies have been approved so far by the ICVCM Governing Board, raising standards of governance, project design and implementation across the market.

Examining market impact, the report highlights the growing demand for CCP-labelled credits. Across all project types, CCP-labelled credits now command a price premium averaging up to 25%, according to ClearBlue Markets and Calyx Global. This demand is prompting a virtuous cycle: buyers seeking CCP-labelled credits drive project developers to transition to approved methodologies, shifting the entire market towards higher integrity.

The report presents an overview of the CCP-Approved methodologies underpinning different project types alongside case studies that



As Mahamdi Nikiema, a farmer involved in Tond Tenga, explains: "The activities we carry out in the forest have brought in money that has been used to buy animals, food, pay school fees, pay for health care and other family expenses."



The report notes how the CCPs are supporting alignment between voluntary and compliance carbon markets. Governments and regulators are increasingly citing the CCPs in the development of their policy frameworks, recognising that doing so contributes to their climate targets and unlocks new funding for sustainable development. The CCP label is now recognised in major initiatives, including Article 6 of the Paris Agreement, carbon taxes, and emissions trading schemes.

A series of regional and country-level snapshots illustrate how high-integrity carbon market frameworks are being adopted and adapted to local contexts. These highlight the ICVCM's role in supporting harmonisation, capacity building and the mobilisation of climate finance - particularly in Africa, Southeast Asia and Latin America, where the potential for impact is significant.

Recognising the importance of collaboration, the report outlines the ICVCM's partnerships and alliances with various entities, associations and civil society platforms. This includes the ICVCM's support for the Indigenous Peoples and Local Communities Engagement Forum - exemplifying its commitment to amplifying local voices and leadership, including those of systemically disadvantaged groups such as women and youth.

Finally, the report spotlights the ICVCM's strategy for continuous improvement, ensuring its work is regularly informed by a diverse range of stakeholders and improved by relevant science, research, innovation and learning.

This Core Carbon Principles Impact Report 2025 invites all stakeholders — market participants, policymakers and the public — to recognise and support the transformation under way, ensuring that carbon markets deliver real, lasting and equitable climate and sustainable development outcomes.

8 | Executive Summary The Core Carbon Principles Impact Report 2025 | 9



The Core Carbon Principles

The Core Carbon Principles (CCPs) are 10 fundamental, science-based principles for identifying high-quality carbon credits that create real, verifiable climate impact.

Published in March 2023, the CCPs were developed with input from hundreds of organisations. We held a 60-day public consultation and received well over 5,000 comments from more than 350 submissions.

This shows a high level of commitment to integrity across the whole market. The CCPs cover three critical aspects of integrity within the voluntary carbon market – governance, emissions impact and sustainable development.

Governance

1. Effective governance

The carbon-crediting program shall have effective program governance to ensure transparency, accountability, continuous improvement and the overall quality of carbon credits.

2. Tracking

The carbon-crediting program shall operate or make use of a registry to uniquely identify, record and track mitigation activities and carbon credits issued to ensure credits can be identified securely and unambiguously.

3. Transparency

The carbon-crediting program shall provide comprehensive and transparent information on all credited mitigation activities. The information shall be publicly available in electronic format and shall be accessible to non-specialised audiences, to enable scrutiny of mitigation activities.

4. Robust independent third-party validation and verification

The carbon-crediting program shall have program-level requirements for robust independent third-party validation and verification of mitigation activities.

Emissions Impact

Sustainable Development

5. Additionality

The greenhouse gas (GHG) emission reductions or removals from the mitigation activity shall be additional, i.e., they would not have occurred in the absence of the incentive created by carbon credit revenues.

6. Permanence

The GHG emission reductions or removals from the mitigation activity shall be permanent or, where there is a risk of reversal, there shall be measures in place to address those risks and compensate reversals.

7. Robust quantification of emission reductions and removals

The GHG emission reductions or removals from the mitigation activity shall be robustly quantified, based on conservative approaches, completeness and scientific methods.

8. No double-counting

The GHG emission reductions or removals from the mitigation activity shall not be double counted, i.e., they shall only be counted once towards achieving mitigation targets or goals. Double counting covers double issuance, double claiming, and double use.

9. Sustainable development benefits and safeguards

The carbon-crediting program shall have clear guidance, tools and compliance procedures to ensure mitigation activities conform with or go beyond widely established industry best practices on social and environmental safeguards while delivering positive sustainable development impacts.

10. Contribution toward net zero transition

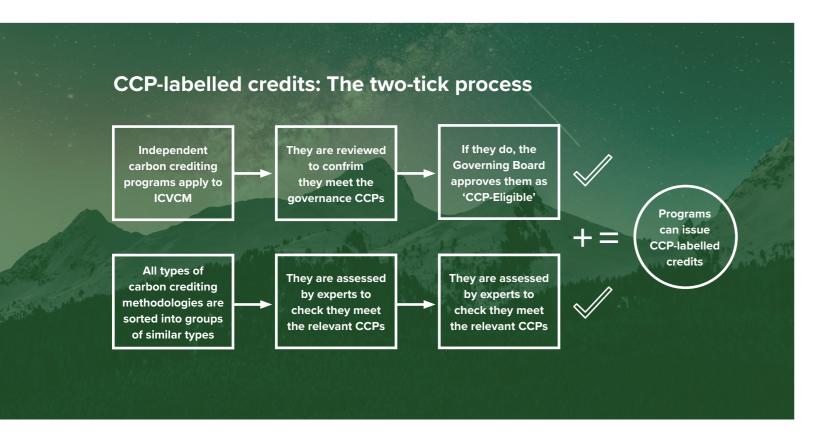
The mitigation activity shall avoid lockingin levels of GHG emissions, technologies or carbon-intensive practices that are incompatible with the objective of achieving net zero GHG emissions by mid-century.



Assessments and Assurance

Since publishing the Core Carbon Principles and Assessment Framework in July 2023, the ICVCM has driven a step-change in global carbon market standards. Seven major carboncrediting programs and 36 methodologies have been approved, following rigorous assessment against the Core Carbon Principles. This has raised the bar for governance, project design and implementation across the market, with hundreds of methodologies and projects now being adapted to meet the globally recognised high-integrity threshold of the CCPs.

Under ICVCM's "two-tick" assessment process, carbon-crediting program's governance and systems are first assessed, followed by an evaluation of their methodologies for designing and implementing carbon projects. Programs are reviewed for the quality of their governance, as well as their processes for ensuring strong social and environmental safeguards and delivering positive sustainable development outcomes. Methodologies are assessed based on their capacity to deliver lasting and measurable and additional greenhouse gas emission reductions and ensuring sustainable development benefits.





These assessments are informed by the ICVCM's Expert Panel — a diverse group of specialists and subject matter experts of various disciplines which provides independent technical guidance to ensure that evaluations are robust and aligned with best practice. Credits can only be tagged with the CCP label if both the issuing program and the methodology used are CCP-Approved by the Integrity Council's Governing Board.

Seven carbon-crediting programs — ACR, ART, CAR, Equitable Earth (formerly ERS), Gold Standard, Isometric and VCS (operated by Verra) — are now CCP-Eligible. A further seven programs remain under assessment, and we expect further program applications over time. All the CCP-Eligible programs strengthened their procedures to meet the CCP criteria — driving up standards relating to elements ranging from governance and transparency to improving social safeguards and grievance procedures. Details of all changes are published on the ICVCM website.

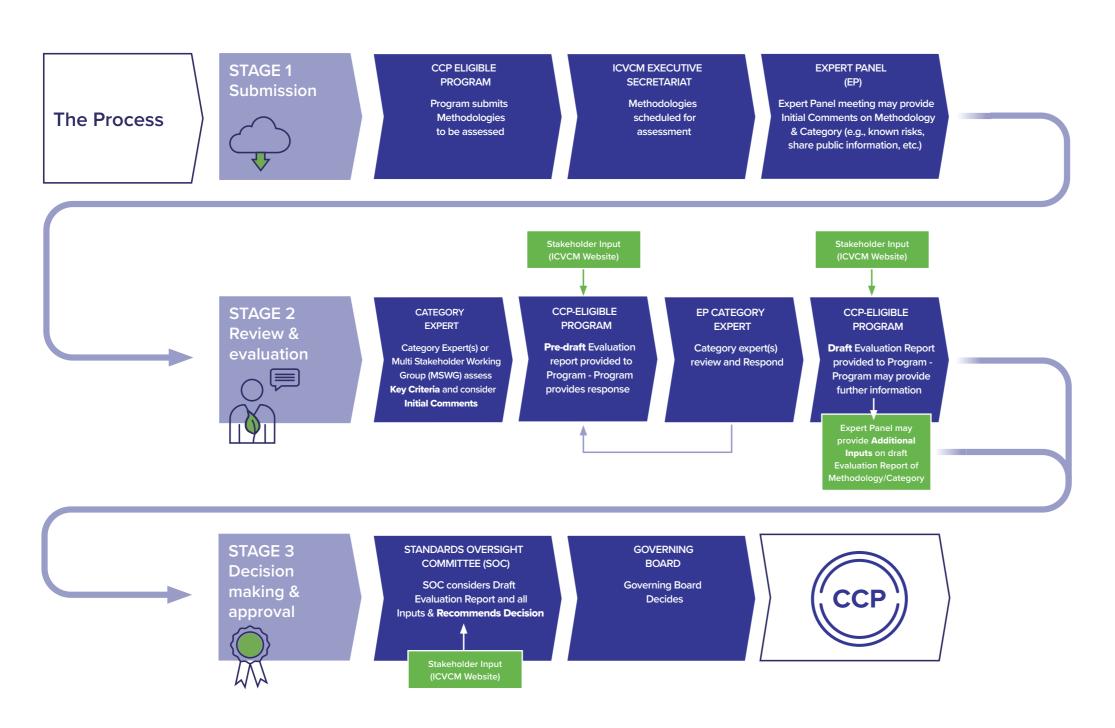


Assurance and oversight

Approvals of programs and their methodologies mark the beginning of the ICVCM's assurance and oversight process. CCP-E ligible programs submit annual reporting on compliance with the CCPs. This includes information on complaints, revisions and updates to documents relevant to their CCP eligibility.

As part of the assurance process, the ICVCM carries out its own performance-monitoring activities - including reviewing data and market intelligence, conducting spot checks and investigations, managing stakeholder complaints and emerging issues, analysing market trends, and inviting stakeholder input on areas for improvement. Stakeholders can submit comments related to market oversight to info@icvcm.org.

Category Assessment of CCP-Eligible Program



So far, 109 of the CCP-Eligible programs' methodologies are under assessment, of which 57 assessments have concluded. Assessment of methodologies follows a rigorous process that includes:

- Assessment by ICVCM experts or by multistakeholder working groups of key criteria of the methodology
- ICVCM expert or multistakeholder review of other parts of the methodology and related tools
- Consideration of all findings from the multistakeholder group and experts, and consideration of stakeholder input, including from the self-led ndigenous Peoples and Local Communities Engagement Forum, where applicable by a technical committee of independent members of the Governing Board
- Rights of reply from the relevant carbon-crediting program, including formal rights to a hearing

16 | Chapter 1 – Raising the Bar

The Core Carbon Principles Impact Report 2025 | 17

Based on those assessments, 36 methodologies have been approved by the ICVCM Governing Board, including:



methodologies for afforestation, reforestation and revegetation (ARR) projects



methodologies for biochar projects



6
methodologies for carbon
dioxide removal (CDR)



methodologies for jurisdictional programs for reducing emissions from deforestation and forest degradation in developing countries (JREDD+)



methodology for projects to reduce emissions from deforestation and forest degradation in developing countries (REDD+)



methodologies for sustainable agriculture projects



methodologies for efficient cookstove projects



methodology for household biodigester projects



methodologies for improved forest management (IFM) projects



methodologies for landfill gas projects (LFG) (two methodologies are used by two programs)



methodology for leak detection and repair (LDAR) projects



methodologies for N₂O Abatement in Adipic Acid Production



methodologies for projects that destroy ozone depleting substances (ODS)





Market impact in numbers

As a result of the assessment decisions to date, an estimated **51 million** unretired credits are now approved to use the CCP label, according to MSCI. Each credit represents one tonne of carbon dioxide removed or carbon dioxide equivalent reduced and so not emitted into the atmosphere.

This currently represents approximately 4% of the 2024 issued volume in the market, but this is only the beginning.

Many of the CCP-Approved methodologies are relatively new and have not begun issuing credits.

There are **hundreds of millions of credits** in the pipeline under CCP-Approved methodologies.

The VCS Program alone has **522 projects registered or in the pipeline**, under CCP-Approved biochar, sustainable agriculture, ARR, IFM or clean cooking solutions methodologies, which may issue **over 273 million credits.**

Existing projects using older versions of these methodologies may have the option to transition to CCP-Approved methodologies, which may further increase the volume of credits.

The impact of CCP approval is now cascading through the market.

CCP-labelled credits are the most in demand credits available

— with some companies retiring

exclusively CCP-labelled credits.1

Buyers' preference for CCP labels is driving up prices for high-integrity credits.

Landfill gas credits saw a price increase of 35% following CCP approval in 2024, according to Ecosystem Marketplace.²

Across all project types, CCP-labelled credits now command a price premium averaging **up to 25% based** on analysis by Calyx Global and ClearBlue.³

This demand-side response is prompting a virtuous cycle of improvement on the supply side as **more and more project developers** seek to register their projects under CCP-Approved methodologies.





Afforestation, Reforestation and Revegetation

Afforestation, Reforestation, and Revegetation (ARR) projects help sequester carbon by increasing forest cover — either through planting trees and shrubs or by supporting natural regeneration. This nature-based approach works in harmony with ecosystems to restore balance and resilience, without relying on high-tech infrastructure.

26 | Chapter 3 - Design to Delivery

Each year, forests and other vegetation absorb approximately 30% of the carbon dioxide emissions generated by burning fossil fuels. However, this natural capacity is declining owing to deforestation, forest degradation, and the growing impacts of climate change. By enhancing nature's ability to capture carbon, ARR projects can play a significant role in mitigating climate change.

As of October 2025, more than 240 million credits had been issued from ARR projects.⁴ These account for around 8% of total credits issued in the voluntary carbon market. Just over 3% of the 240 million were issued under CCP-Approved methodologies but that proportion is set to grow as more projects are registered.





Restoring degraded land in **Burkina Faso with agroforestry** and native tree planting

• Project: Tond Tenga

• Project ID: VCS-5085

• Developer: Tree Aid

Program: VCS

• Category: ARR

• Methodology: VM0047: Afforestation, Reforestation, and Revegetation

• Location: Burkina Faso



Tond Tenga — meaning "Our Land" in Mòoré, the most widely spoken language in Burkina Faso — is a new community-driven agroforestry and reforestation project using the VM0047 methodology. It supports up to 185 villages in restoring more than 12,000 hectares of degraded land.

Located in a region heavily affected by deforestation, desertification, and the impacts of the climate crisis, the project empowers smallholder farmers and communities to grow trees that restore soil health, improve crop yields, and generate new sources of income. Over its 40-year lifetime, the project will plant more than six million trees and is expected to remove over three million metric tonnes of carbon dioxide from the atmosphere — directly contributing to the Great Green Wall initiative. Launched in 2007 by the African Union, this initiative aims to combat desertification and restore degraded land across the Sahel region in western and north-central Africa.

The environmental benefits go beyond greenhouse gas removals. The project's focus on sustainable land management is improving soil fertility, enhancing groundwater recharge, reducing erosion, and helping buffer communities against climate shocks such as droughts and floods. Early vegetation surveys show increases in species richness doubling in several sites compared to degraded baselines. This ecological recovery is expected

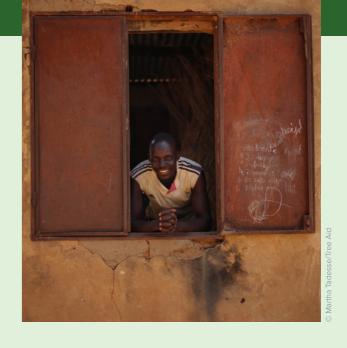
to provide habitat for pollinators, small mammals, and migratory birds, with systematic biodiversity monitoring planned from 2026.

The project uses a CCP-Approved methodology. No CCP-labelled credits have yet been issued for this project, but 3.7 million credits are projected over the 40-year period, with the first monitoring cycle and issuance expected in 2027-2028.

Forest governance initiatives linked to the project began in 2009, when local authorities formally recognised cooperative land management rights. Today, the project supports a network of more than 40 cooperatives - responsible for planting, managing, and monitoring the forest — following training in the sustainable use and processing of forest resources into non-timber forest products.

Importantly, the cooperatives oversee the distribution of carbon revenues as part of the project's equitable benefit-sharing approach. Decisions are made transparently at regular community assemblies, with funds channelled into supporting community priorities — including improved access to water and education, and the creation of green jobs through restoration and sustainable livelihood activities. Tree Aid expects the project will deliver more than \$30 million in direct financial benefits over the next 40 years to communities living in and around the forest areas, who are actively involved in restoring and protecting the forest. One hundred percent of the revenue will go to the communities.

Since the VM0047 methodology was approved in December 2024 by the ICVCM as meeting the Core Carbon Principles (CCPs), Tree Aid has observed growing market confidence and increasing interest from buyers — with the potential for significantly higher prices for future credits. This is expected to generate



even greater financial returns for participating communities, reinforcing how high-quality, high-integrity projects can deliver substantial and lasting benefits for local people and their environments.

Other social and economic impacts include job creation in nurseries, tree planting, and monitoring activities — as well as increased food and income from non-timber forest products such as shea and moringa. Women's participation in decision-making processes is also being strengthened, with more women taking on leadership roles within the cooperatives.

Mahamdi Nikiema, 40, has been a farmer in Burkina Faso for most of his life. Speaking about the project, he said: "The activities we carry out in the forest have brought in money that has been used to buy animals, food, pay school fees, pay for health care and other family expenses. The money that will come from looking after our trees will be used for incomegenerating activities that can benefit many."

Tom Skirrow, CEO of Tree Aid, said: "We are incredibly proud that our work, giving communities in Burkina Faso direct access to a share of income generated from carbon credits, is not only impactful but innovative. We hope the Tond Tenga project paves the way for more community-centred carbon projects going forward."

28 | Chapter 3 – Design to Delivery



REDD+ (Project and Jurisdictional)

Approximately 15 billion trees are cut down or degraded every year, resulting in 5-10 billion metric tonnes of carbon dioxide being released back into the atmosphere.⁵

REDD+ is a United Nations-backed framework that aims to curb climate change by stopping the destruction and degradation of forests. It stands for Reducing Emissions from Deforestation and Forest Degradation in developing Countries. The "+" signifies the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

arbon Tanzania/Roshri Lodhia

Project-based REDD+ methodologies are focused on specific, defined areas and are often managed by independent developers, NGOs or communities.

Jurisdictional REDD+ methodologies operate on a large scale, covering entire regions, states or countries. Managed by governments or regional authorities, they address deforestation in a coordinated, strategic way that minimises the risk of deforestation and degradation shifting from protected to unprotected areas. Jurisdictional REDD+ credits are aligned with national climate strategies, specifically contributing to Nationally Determined Contributions (NDCs), and help meet overarching climate goals.





Protecting valuable dryland forests from destruction in Tanzania

• Project: Makame Savannah

• Project ID: VCS-1900

• **Developer:** Carbon Tanzania

Program: Verra

Category: REDD+

• **Methodology:** Transitioning from

VM0007 to VM0048

• Location: Tanzania



Located in the vast drylands of northern Tanzania and established in 2016, the Makame Savannah project protects more than 350,000 hectares of wildlife-rich forests and savannah from destruction and degradation. It is currently transitioning to the Verra VM0048 methodology — a CCP-Approved REDD+ methodology.

The Maasai people have been grazing cattle in the area for over 200 years and rely on the land to sustain their livelihoods and preserve their culture. They practise traditional, semi-nomadic pastoralism, managing the land sustainably through techniques such as rotational grazing. However, attempts to convert the area into agricultural land have contributed to a deforestation rate nine times higher than Tanzania's national average. As of 2022, the land-use sector — including agriculture and forestry — accounted for 84% of Tanzania's total greenhouse gas emissions.⁶

The Makame Savannah project was developed in partnership with the Makame Wildlife Management Area (WMA) — a community-run conservation organisation that gives five participating villages legal management rights over the land. Income from the project supports the WMA's work in creating land use plans and employing Village Game Scouts to carry out patrols to prevent poaching and deforestation. This funding provides the Maasai with critical resources to conserve land in the region.

Tanzania's national policy framework supports the Makame Savannah Project through its decentralisation of natural resource management. Legislation such as the Forest Act (2002), Village Land Act (1999), and Wildlife Management Authority Act (2013) empowers villages to manage, protect, and benefit from the forests and wildlife on their land. This decentralised governance model forms the foundation of the Makame Wildlife Management Area, enabling Free, Prior and Informed Consent (FPIC) and direct community participation in land-use decisions. Legally authorised Wildlife Management Areas also have the right to determine how project revenues are used, ensuring that benefits are locally directed.

By preventing deforestation, the project has so far avoided almost one million metric tonnes of carbon dioxide emissions, which have been verified and issued as carbon credits. To ensure robust calculation of emission reductions, satellite imagery is used to track deforestation, forest degradation and natural disturbances. Additionally, a 2024 social value study found that 83% of participants reported improved grazing conditions and livestock quality as a result of project revenue.⁷

The project's wider social and economic impact has been profound. The community retains 61% of revenues, with \$2.9 million already channelled into local priorities. There is a strong emphasis on community-led governance, with decisions on funding made at village assemblies. The project has so far paid the university fees for 68 students, built three new health clinics (including a maternity ward) and constructed new school dormitories for girls. It also supports the employment of 33 Village Game Scouts (including three women), one project manager, and eight Carbon Champions who engage with locals to collect feedback and raise awareness of project goals.



Supuk Olekao, Manager of Makame WMA, said: "Before the Makame Savannah project was created within our WMA, our main responsibility was to make sure that the forest was protected. We did this mostly through the community leaders, the llaigwanak, and rarely by using coordinated patrols. However, due to the carbon revenue we get through the project and with the support of the Honeyguide Foundation, we now have the funds and resources to protect the forest as we would like."

The project is transitioning from VM0007 to VM0048 to become eligible for the CCP label. This transition involves updating emissions reduction calculations using new baselines under VM0048's requirements — designed to ensure robust quantification. It requires additional time and funding to produce a new project design document and conduct a new validation visit with a validation and verification body (VVB). However, Carbon Tanzania believes the benefits of CCP endorsement make this investment worthwhile.

Jo Anderson, co-founder of Carbon Tanzania, said: "We anticipate that a CCP label will significantly improve the market standing and financial viability of the project and the credits generated by the project. The CCPs' rigorous review process ensures the quality, transparency, and integrity of carbon credits, which builds greater trust among buyers and investors. This trust leads to increased market demand and a higher, more equitable price for the credits, ultimately improving the project's financial returns."

32 | Chapter 3 – Design to Delivery



Efficient Cookstoves

Nearly a third of the world's population – <u>2.3 billion people</u> – were estimated in 2021 to be cooking their meals using open fires or basic stoves that burn fuels such as wood, charcoal and paraffin.⁸ Cooking methods that rely on wood and charcoal contribute to deforestation and degradation, with the demand for these materials causing the loss of forests and mangroves equivalent to the <u>size of Ireland</u> each year.⁹ According to the International Energy Agency, this is estimated to account for nearly 2% of global emissions.

As well as contributing to global greenhouse gas emissions, these cooking methods pose serious health risks. Each year, an estimated 3.7 million people die prematurely from household air pollution. In many countries, women and children — who spend the most time indoors, near cooking technology — bear the brunt of this burden. As well as facing consistent exposure to high levels of pollution, they are typically responsible for gathering fuel. This work increases the risk of musculoskeletal injuries and takes up time that could be spent on activities such as education. In

When implemented effectively, efficient cookstove projects can help to tackle these challenges by replacing traditional cookstoves with more efficient models or alternative fuels (or both) — helping to reduce deforestation, lower GHG emissions, improve indoor air quality, and enhance people's health.









Scaling electric cooking in Uganda and Tanzania

 Project: Beyond Biomass: UpEnergy Electric Cooking VPA9 (Tanzania);
 Beyond Biomass: UpEnergy Electric Cooking VPA1 (Uganda)

 Project IDs: GS12082 (VPA9); GS11579 (VPA1)

• **Developer:** UpEnergy Group

• Program: Gold Standard

• Category: Efficient Cookstoves

 Methodology: GS Methodology for Metered and Measured Energy Cooking Devices, Version 1.2

• Location: Africa (Tanzania; Uganda)



An example of a project using one of the CCP-Approved methodologies is Beyond Biomass, a voluntary clean cooking initiative that distributes electric pressure cookers to households in Tanzania and Uganda.

The methodology used for this project addresses previous concerns around cookstove carbon credit integrity by closely monitoring the environmental impact of cookstove projects and using more rigorous standards to reduce the risk of credit overestimation. The UpEnergy Group has said that it is in the process of updating how its projects calculate use of firewood and other fuels in line with the conditions of the CCP Approval of this methodology.

The project aims to help families transition away from cooking with charcoal or firewood and adopt cleaner, more affordable alternatives — reducing long-term dependence on polluting fuels. It is projected to distribute 250,000 metered clean cookstoves by 2028, with 10,000 units already deployed.¹³

The Uganda project is expected to avoid approximately 143,400 metric tonnes of carbon dioxide equivalent during its first five-year crediting period, while the Tanzania project targets an additional 150,000 tonnes of carbon dioxide equivalent avoided over the same timeframe.



Alongside GHG emissions reductions, the project delivers social, economic and environmental benefits — including improved indoor air quality, reduced deforestation, time saved on fuel gathering and lower energy costs for families. An independent survey of 281 Ugandan households using the efficient cookstoves in 2024 found that:

- 89% reported improved quality of life
- 82% reported improved health, including 80% noting better indoor air quality
- 92% said they saved time cooking
- More than 80% reported saving money
- Many women said the clean cookstoves gave them greater flexibility in managing household tasks

The program partners with local authorities to ensure alignment with regulatory frameworks and development plans, as well as national government initiatives promoting cleaner cooking. Tanzania's National Clean Cooking Strategy 2024-2034 aims to ensure 80% of households use clean cooking solutions by 2034, while the Ugandan government is developing an integrated national clean cooking strategy.¹⁴

The projects also use various approaches to ensure that local communities are fully informed and engaged — adhering to Free, Prior, and Informed Consent (FPIC) principles. Project staff emphasise the importance of local ownership and economic benefits. Community members — including women — are trained and employed to provide distribution, repair, and maintenance services. Local leaders have also led awareness campaigns and live demonstrations to showcase the benefits of electric cooking and its compatibility with traditional practices.



36 | Chapter 3 – Design to Delivery

The Core Carbon Principles Impact Report 2025 | 37



Distributing efficient cookstoves to refugee and local communities in Bangladesh

 Project: Clean Cooking Project for Refugees, Host Communities and Other Marginalised Communities in Bangladesh

• Project ID: GS12114

Developer: Value Network Ventures
 Pte Ltd.

• Program: Gold Standard

• Category: Efficient Cookstoves

 Methodology: Technologies and Practices to Displace Decentralised Thermal Energy Consumption (TPDDTEC) v4.0

· Location: Bangladesh



More than <u>2.8 million people</u> live in the district of Cox's Bazar, Bangladesh, including approximately one million Rohingya refugees who have fled violence in Myanmar.

Many residents rely on traditional woodfuelled cookstoves to prepare food. Displaced communities are especially dependent on these methods due to limited economic opportunities and the lack of accessible, affordable energy alternatives in refugee camps.

Traditional open-fire and three-stone cookstoves emit large amounts of carbon dioxide and methane. They also produce black carbon (soot) due to the incomplete combustion of biomass — a form of fine particulate air pollution that harms human health and contributes to global warming. Meanwhile, the reliance on firewood has placed significant pressure on ecosystems, resulting in the depletion of local forests.





The project Kitchens Without Borders replaces these traditional cooking methods with highefficiency metal cookstoves called Sashroyi Chulas (which translates from Bangla to English as "Fuel-Saving Cookstoves"). These stoves are 40% more efficient in burning fuel as compared to the traditional three stone cookstoves, and reduce smoke, particulate matter, and other gaseous emissions that contribute to household air pollution. By November 2025, the project had distributed 151,271 cookstoves free of charge to local households that volunteered to participate.

By reducing the amount of fuelwood burnt, the project helps to reduce greenhouse gas emissions and ease deforestation pressure — maintaining local carbon sinks that absorb atmospheric carbon dioxide. Households can also save up to 30–50% on fuel expenses due to lower fuel consumption.

The project manufactures stoves in Bangladesh, creating local employment in production, distribution, and maintenance while building a self-reliant supply chain. Its factory employs over 300 workers, many of whom are women who would otherwise have limited access to formal work. Local entrepreneurs are also trained to distribute and promote the stoves, ensuring communities are informed about the benefits of using cleaner cookstoves and receive user training on proper maintenance and use.

Strategic collaboration with both the local government and the union council played a key role in designing an accurate stove distribution plan across the project area. The deployment was carried out under their direct supervision to ensure strict adherence to the "one stove per household" policy. Prior to implementation, the project also secured permission from the Upazila Nirbahi Officer (the district's senior civil service official) and local government, ensuring local approval and collaboration.

Local community members are deeply integrated into the project's operations. They actively participate in monitoring activities and lead stakeholder engagement processes — ensuring that the project remains grounded in local realities and priorities. Regular community meetings, one-on-one visits, and awareness sessions are conducted to keep beneficiaries informed about ongoing project progress, stove performance, and maintenance schedules.

The project design is currently being updated to ensure full alignment with CCP-Approval conditions. Future credit issuances from the project are therefore expected to be CCP-labelled, with approximately 600,000 of these CCP-labelled credits to be issued over the next four issuances from 2026 to 2029.



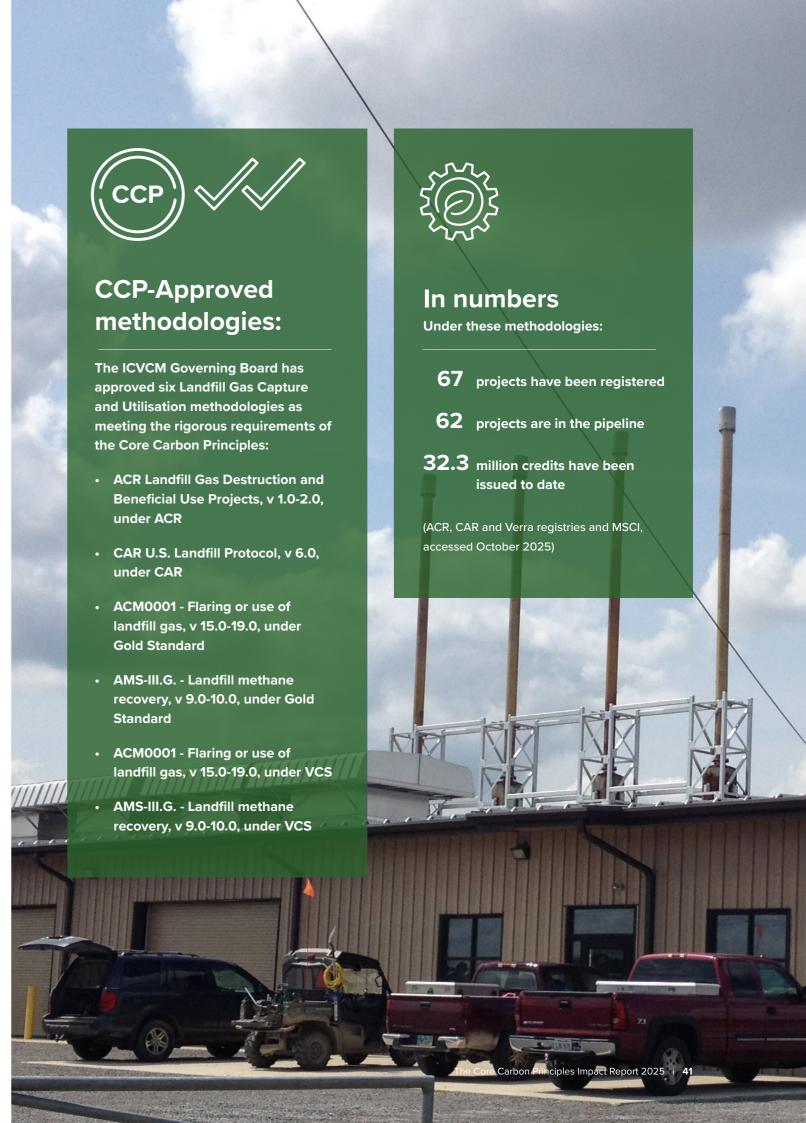
Landfill Gas Capture and Utilisation

As organic waste decomposes in landfill, it releases methane — a greenhouse gas much stronger than carbon dioxide in heating the atmosphere in the short-term.¹⁵ Around 580 million metric tonnes of methane is emitted each year, with approximately 60% attributed to human activity, including emissions from municipal waste.¹⁶

The growing volume of municipal waste worldwide means that waste sector emissions have risen to account for approximately 3% of total greenhouse gas emissions.¹⁷

Projects using Landfill Gas Capture (LGC) methodologies capture, treat, and use the methane from decomposing waste as a renewable energy resource — transforming greenhouse gas emissions into a source of sustainable energy. This process also reduces odours and other dangers from methane emissions, improving air quality and protecting human health.







Turning landfill methane gas into clean, reliable energy

 Project: Hancock County Landfill Gas Collection Project

• Project ID: CAR635

• **Developer:** 3Degrees

• Program: Climate Action Reserve (CAR)

• Category: Landfill Gas Capture

• Methodology: CAR Landfill Project

Reporting Protocol

• Location: United States



The Hancock County Landfill Gas Collection Project in Ohio, USA addresses a climate and public health challenge: methane emissions from municipal solid waste landfills. The US Environmental Protection Agency estimates that landfill waste decomposition contributes roughly 14% of US methane emissions — a climate super pollutant with a global warming potential 27–30 times greater than carbon dioxide. The project uses the CCP-Approved CAR Landfill Project Reporting Protocol methodology.

Since 2010, 3Degrees has partnered with Hancock County to capture methane gas generated by the county's sanitary landfill and convert it into reliable, clean electricity. To date, the project has achieved 1,467,718 verified emission reductions, with another 691,000 tonnes projected over the remainder of the second crediting period. Moreover, the system can produce around 22,000 megawatt-hours of electricity annually — enough to power more than 2000 US households for a full year.

High-integrity monitoring, reporting, and verification by the team at 3Degrees — along with market recognition — underpin the project's success. Since its inception, the project has been verified 14 times by five independent validation and verification bodies, creating a rigorous evidence base for environmental performance. Close collaboration between the



project owners and 3Degrees has also ensured sustained viability despite evolving reporting requirements since 2010. The project aligns with the CCPs, demonstrating high standards of additionality, durability, governance, and transparency.

The project team has highlighted the benefits of using a CCP-Approved methodology, including expanded access to buyers who demand high quality standards. It has also noted that the CCP label serves as a recognised marker of

integrity and is increasingly viewed as a baseline requirement in conversations with buyers. From the perspective of buyers, the CCP label offers confidence that measurement and verification practices are aligned with trusted frameworks and independently verified as high quality.

In 2014, the Environmental Protection Agency recognised Hancock County as a Community Partner of the Year for finding a beneficial use for landfill gas — improving local air quality, reducing greenhouse gas emissions, creating jobs, and demonstrating the value of public-private partnerships to protect public health and the environment.

By capturing and destroying methane, the system is both a climate and clean-air solution for the approximately 74,000 people who call Hancock County home. The public-private collaboration showcases how municipal ownership — paired with expert developers and cooperative utilities — can deliver outcomes that benefit both the environment and residents. Hancock County's approach – capture, verify, and convert – illustrates how municipalities can transform a hard-to-abate GHG emissions source into a reliable clean-power asset. With verified performance, reputable registry oversight, and clear community benefits, the Hancock County LFG Project offers a scalable blueprint for local climate leadership.

42 | Chapter 3 – Design to Delivery



Ozone Depleting Substances

Ozone Depleting Substances (ODS) — including hydrochlorofluorocarbons (HCFCs) and chlorofluorocarbons (CFCs) — are widely used in refrigeration, aerosols, and insulation. These substances cause significant damage to the ozone layer, which shields the Earth from the sun's harmful ultraviolet radiation. They are also high Global Warming Potential (GWP) substances: the GWP of CFC-12¹⁸ is about 10,000 times greater than that of carbon dioxide.¹⁹

Although the Montreal Protocol phased out the production of key ozone-depleting substances (ODS), their continued use was permitted in existing refrigeration and air-conditioning systems, with no directives on end-of-life management. As a result, large quantities of these gases remain in older equipment and foam insulation, posing a risk of release if not properly recovered and destroyed.

To address this, carbon credit methodologies have been developed to destroy these substances and prevent their release into the atmosphere.



CCP-Approved methodologies:

The ICVCM Governing Board has approved three ODS methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- ACR Destruction of Ozone
 Depleting Substances (ODS) from
 International Sources,
 v 1.0, under ACR*
- CAR Article 5 Ozone Depleting Substances Protocol, v 1.0-2.0, under CAR*
- CAR U.S. Ozone Depleting Substances Protocol, v 1.0-2.0, under CAR*

*Conditions apply



In numbers

Under these methodologies:

- **27** projects have been registered
- 7 projects are in the pipeline
- 6.5 million credits have been issued

(ACR and CAR registries)

44 | Chapter 3 – Design to Delivery The Core Carbon Principles Impact Report 2025 | 4



N₂O Abatement in Adipic Acid Production

Adipic acid is a white crystalline compound that is a key ingredient in everyday products such as nylon, foams, safety airbags, coatings, adhesives, and even some food additives. Yet behind these common applications lies significant climate and environmental challenges.

Conventional adipic acid production releases nitrous oxide (N_2O) — a greenhouse gas with a global warming potential approximately 265 times greater than carbon dioxide over a 100-year period.²⁰ Nitrous oxide is also the leading contributor to stratospheric ozone depletion following the phaseout of chlorofluorocarbons (CFCs). Studies estimate that in 2021, global adipic acid production emitted 142 million tonnes of carbon dioxide equivalent.²¹

Modern facilities now deploy catalytic and thermal destruction systems that convert nitrous oxide into harmless nitrogen and oxygen. These measures substantially reduce greenhouse gas emissions, protect the ozone layer, and improve local air quality. Carbon-crediting methodologies have accelerated this transition by rewarding manufacturers for verified emissions reductions.



CCP-Approved methodologies:

The ICVCM Governing Board has approved two adipic acid methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- CAR U.S. Adipic Acid Production Protocol, v 1.0, under CAR*
- CAR China Adipic Acid Production Protocol, v 1.0. under CAR*

*Conditions apply



In numbers

Under these methodologies:

- 1 project has been registered
- 3 projects are in the pipeline
- 18.7 million credits have been issued

(ACR registry)



Leak Detection and Repair

Methane is a potent greenhouse gas that can be emitted during the production and transport of oil and natural gas.

This occurs both accidentally from imperfections in equipment and intentionally from operations and maintenance procedures, as well as from equipment designed to bleed methane for operational purposes.

Leak detection and repair (LDAR) refers to the process of identifying and fixing leaks in natural gas grids and refinery systems. This includes production, processing, transport, storage, and distribution facilities — all aimed at reducing greenhouse gas emissions. By implementing LDAR programs, companies can demonstrate measurable reductions that can be quantified and verified to generate carbon credits according to established protocols and standards.

Leak detection and repair (LDAR) projects are relatively rare, and those that exist are mostly found in lower-income countries where gas infrastructure is often outdated and budgets for upgrades or enforcement of modern maintenance regulations are limited. Financial support through carbon credits helps repair infrastructure that leaks methane and supports countries in meeting their climate goals under the Paris Agreement.

The ICVCM Governing Board observed that in general, leaks may be best addressed by the companies responsible for building and maintaining this kind of infrastructure and is in favour of stronger regulation that places the financial burden of leak detection and repair on the firms that profit from their operation. This is why the Governing Board approval decision is limited to one crediting period only, and the Board will revisit methodologies in this category during assessment after future refinements of the Assessment Framework.



CCP-Approved methodologies:

The ICVCM Governing Board has approved one leak detection and repair methodology as meeting the rigorous requirements of the Core Carbon Principles:

 AM0023 - Leak detection and repair in gas production, processing, transmission, storage and distribution systems and in refinery facilities, v 4.0, under VCS



In numbers

Under these methodologies:

- **8** projects have been registered
- **2** projects are in the pipeline ²²

(Verra registry)







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The Core Carbon Principles Impact Report 2025 | 49



Carbon Dioxide Removal (CDR)

The IPCC's Sixth Assessment Report states that "the deployment of CDR to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO₂ or GHG emissions are to be achieved". Carbon dioxide removal (CDR) accounts for less than 1% of issued volume in the voluntary carbon market. However, it represents a significant share of forward sales and is expected to grow markedly.

The CDR category covers engineered technologies that rely on man-made systems to capture carbon dioxide from sources such as power plants or directly from the air, storing it in underground reservoirs or products.

Examples include Direct Air Capture with Carbon Storage, which removes carbon dioxide from the atmosphere and stores it underground, and Bioenergy with Carbon Capture and Storage, which captures emissions from biomass burned for energy or fuel.

Other CDR techniques include accelerated carbonation of concrete aggregate, which exposes crushed demolished concrete to concentrated carbon dioxide. This process locks carbon into the concrete while producing reusable materials for the construction industry.



CCP-Approved methodologies:

The ICVCM Governing Board has approved six carbon dioxide removal methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- GS Carbon Sequestration Through Accelerated Carbonation of Concrete Aggregate, v 1.0, under Gold Standard
- Bio-oil Geological Storage,
 v 1.0-1.1, under Isometric
- Biogenic Carbon Capture and Storage, v 1.1, under Isometric
- Biomass Geological Storage, v 1.0-1.1, under Isometric
- Direct Air Capture, v 1.1, under Isometric
- Subsurface Biomass Carbon
 Removal and Storage, v 1.0, under
 Isometric



In numbers

Under these methodologies:

- 17 projects have been registered
- **5** projects are in the pipeline

(Gold Standard and Isometric registries)



CARBON CAPTURT



Biochar

Produced by the heating of biomass (such as agricultural waste or wood), biochar can store carbon captured from the atmosphere for hundreds or even thousands of years. This makes it a highly effective carbon sink.

Plants store carbon in their tissues as they grow. When plants decompose, they release this carbon back into the atmosphere, which other plants eventually absorb. Each year, decaying plants release 60 billion metric tonnes of carbon – six times more than all human greenhouse gas emissions – making up approximately 10% of the total amount of carbon in the atmosphere.²³

Although this is a natural, carbon-neutral process, biochar offers a way to make it carbon-negative by locking carbon into the soil. Biochar is a highly absorbent, carbon-rich material produced by heating biomass in a low-oxygen environment through a process called pyrolysis. This stabilises the carbon within the biomass, preventing it from decomposing and releasing carbon dioxide.



CCP-Approved methodologies:

The ICVCM Governing Board has approved three biochar methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- CAR U.S. and Canada Biochar, v1.0, under CAR
- Biochar Production and Storage, v1.0, under Isometric
- VM0044 Methodology for Biochar Utilisation in Soil and Non-Soil Applications, v1.2, under VCS



In numbers

Under these methodologies:

- 1 project has been registered
- 10 projects are in the pipeline

(CAR, Isometric and VCS registries)



Biodigesters

Modern societies and economies generate increasing amounts of organic waste — including agricultural residues, food waste and animal manure. As these materials decompose, they release methane into the atmosphere.

A biodigester is a system that decomposes organic material such as food waste, animal manure and sewage. Through a biological process called anaerobic digestion, organic material diluted in water is broken down by microorganisms, releasing two valuable by-products:

biogas: a mixture of methane and carbon dioxide

 digestate: a nutrient-rich material that can be used as an organic fertiliser Biogas can be used as a sustainable energy source for electricity, cooking and heating — offering a cleaner alternative to fossil fuel-derived energy. It can be upgraded to biomethane, a substitute for natural gas that requires no infrastructure modifications while delivering the same energy benefits.



CCP-Approved methodologies:

The ICVCM Governing Board has approved one biodigester methodology as meeting the rigorous requirements of the Core Carbon Principles:

- GS Methodology for Animal Manure Management and Biogas Use for Thermal Energy Generation, v1.0-1.1, under Gold Standard
- Note: This methodology was approved with conditions, for details see <u>www.icvcm.org</u>



In numbers

Under these methodologies:

10 projects are in the pipeline

(MSCI, October 2025)





Improved Forest Management

Forested areas represent a frontline defence against the rising tide of climate change, trapping carbon and providing shelter for the thousands of species which make up the rich biodiversity of this planet – many of which we are at risk of losing. Forests act as a carbon sink, absorbing a net 7.6 billion metric tonnes of carbon dioxide per year — 1.5 times more carbon than the US emits annually.²⁴

Improved Forest Management (IFM) practices aim to prevent the greenhouse gas emissions that are typically created from harvest or natural disturbance of forested areas — such as wildfires — from entering the atmosphere while enhancing the capacity for these areas to store carbon. IFM methods include reducing logging intensity, encouraging natural regeneration, planting native or commercially valuable species, extending harvest cycles, conserving selected areas, and managing fire, pests and disease. Carbon credits from IFM projects are issued for both avoided greenhouse gas emissions and removals.



CCP-Approved methodologies:

The ICVCM Governing Board has approved three IFM methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- ACR Improved Forest
 Management (IFM) on Non-Federal US Forestlands,
 v 2.1, under ACR
- CAR Mexico Forest Protocol, v 3.0, under CAR
- VM0045 Improved Forest
 Management Methodology Using
 Dynamic Matched Baselines from
 National Forest Inventories,
 v 1.2, under VCS



In numbers

Under these methodologies:

270k credits have been issued so far and supply is expected to increase as existing projects adapt to the ICVCM condition for the CAR methodology and new projects are developed using the approved methodologies

(ACR, CAR and Verra registries)



Sustainable Agriculture

The Sustainable Agriculture category encompasses improved agricultural practices aimed at reducing greenhouse gas emissions and enhancing soil organic carbon removals.

It includes a wide range of different practices such as reduced tillage and improved residue management, crop rotation, improved grazing activities, optimised fertilizer use, and improved water and irrigation management.

Each practice varies in its impact on greenhouse gas reduction and carbon sequestration.

Methodologies may allow crediting for multiple practices within a single project.

(CCP)

CCP-Approved methodologies:

The ICVCM Governing Board has approved two Sustainable Agriculture methodologies as meeting the rigorous requirements of the Core Carbon Principles:

- CAR US Soil Enrichment Protocol, v1.1
- Verra VM0042 Improved Agricultural Land Management, v2.2
- Note: Both methodologies were approved with conditions, for details see www.icvcm.org



In numbers

Under these methodologies:

1 million credits have been issued

(CAR and Verra registries)





Convergence

As more high-integrity methodologies are approved across diverse project types a

across diverse project types and more high-quality carbon credits enter the market, governments and regulators are increasingly aligning with the Core Carbon Principles — planning regulations to integrate them into emissions trading systems, carbon taxes and Article 6, paragraph 2 of the **Paris Agreement cooperative** approaches. This chapter explores how the CCPs are supporting convergence between voluntary and compliance markets, helping to create globally interconnected markets, to unlock finance and accelerate progress toward national climate goals.

One of the most important shifts in global carbon markets in recent years is the ongoing convergence of compliance and voluntary markets. This trend is helping to improve the robustness of domestic carbon programs and enhance market liquidity, with credits used in both compliance markets and for corporate decarbonisation purposes meeting the same high threshold for integrity. It also provides greater certainty for project developers, who know they can access multiple markets rather than being locked into a single segment, and supports better price transparency across project types.

In the voluntary market, carbon credits can be bought and used by companies or organisations seeking to take responsibility for ongoing greenhouse gas emissions that they cannot yet eliminate. In compliance markets, credits are used by companies, and organisations to meet regulatory requirements, or by countries to meet their international obligations under the Paris Agreement.

Historically, these markets operated independently, with credits for compliance and corporate use governed by different rules. However, in recent years, carboncrediting programs previously used solely for voluntary purposes are increasingly being recognised within international and domestic compliance frameworks — including under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

A growing number of governments are now allowing the use of voluntary carbon credits in their emissions trading systems (ETS) and carbon taxes. Around 40% of implemented ETSs and carbon taxes worldwide allow companies to use carbon credits to meet part of their obligations. Examples include California's cap-and-trade and Colombia's carbon tax. Use of credits for compliance purposes is creating significant demand for credits, accounting for 24% of carbon credit retirements in 2024.

The convergence trend is projected to accelerate as further pathways for integration are introduced. Following COP26, governments began to operationalise Article 6, paragraph 2 of the Paris Agreement, which allows countries to transfer Internationally Transferred Mitigation Outcomes (ITMOs), including carbon credits issued by independent programs and authorised by governments, to support them in meeting their Nationally Determined Contributions (NDCs).

As carbon market mechanisms become more integrated, standards are becoming more interconnected across systems to strengthen transparency, promote fungibility and build trust. In this context, the CCPs are emerging as a reference point for governments developing their own domestic carbon market frameworks.





Convergence of carbon markets in action

This year, the UK government launched its Voluntary Carbon and Nature Markets consultation — aimed at providing guidance for organisations on the responsible use of carbon credits.

The consultation proposes endorsing the CCPs as the minimum baseline for high integrity and confirms that the UK government's Greenhouse Gas Removals Standard is being developed in line with the CCPs, with the aim of legislating greenhouse gas removal into the UK ETS by 2028.²⁷

In October 2025, Singapore's National Climate Change Secretariat (NCCS), Ministry of Trade and Industry and Enterprise Singapore published their Guidance on the Role of Carbon Credits in Corporate Decarbonisation.²⁸ The Guidance demonstrates convergence by proposing that companies take reference from global meta standards, exemplifying the CCPs alongside CORSIA's Eligible Emissions Unit Eligibility Criteria and the Paris Agreement Crediting Mechanism. Additionally, the Monetary Authority of Singapore has announced that transition credits, which may be used by Singaporean companies to offset up to 5% of their carbon tax liability, must be aligned with globally recognised standards such as the CCPs and other Article 6 integrity requirements.

In September 2025, Singapore's NCCS announced that the government will purchase CCP-labelled credits when they are available from four projects: the Kowen Antami REDD+ Project (VCS5394) and the Together for Forests REDD+ Project (VCS5442) in Peru, the Boomitra Grassland Restoration Project in Paraguay, as well as the Kwahu Landscape Restoration Project (VCS5432) in Ghana. These credits will contribute to Singapore's Nationally Determined Contribution (NDC).²⁹ The use of CCP-labelled credits in Article 6.2 transactions such as these highlights the complementary roles of the UNFCCC and ICVCM in advancing high-integrity carbon markets.

Governments and regulators can use CCP-labelled carbon credits to demonstrate compliance with Article 6.2 cooperative approaches when relying on independent credits. Using CCP-Eligible programs, methodologies and credits gives countries confidence in the quality of transactions, helps conserve resources and builds trust in Article 6 markets by grounding them in robust integrity standards.

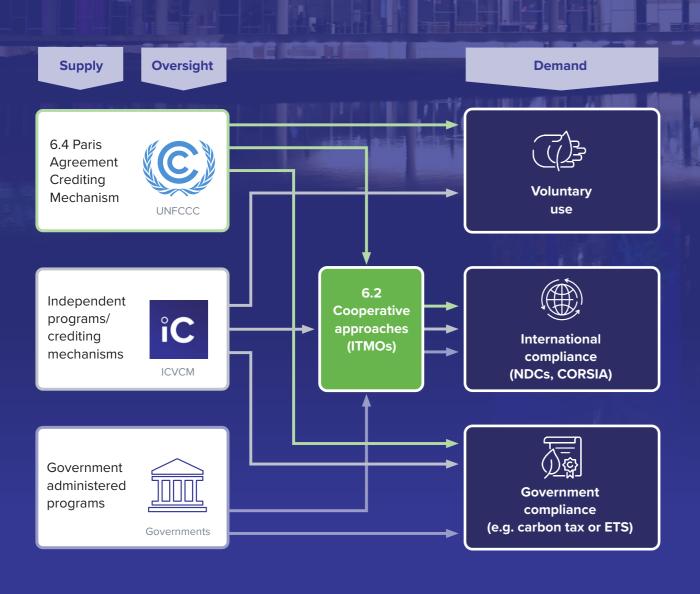
A growing number of governments have now announced their support for the CCPs and the ICVCM is actively working with several more governments, as well as the UNFCCC, to increase consistency and interoperability across voluntary and compliance carbon markets.

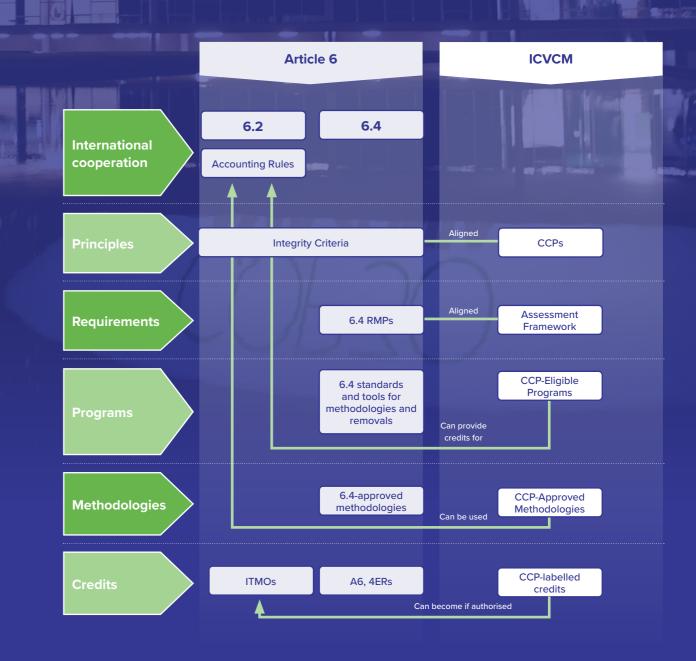




Carbon market mechanisms

Article 6 of the Paris Agreement and the Integrity Council's work





66 | Chapter 4 - Policy to Practice The Core Carbon Principles Impact Report 2025 | 67

International spotlights

68 Chapter 4 - Policy to Practice

As governments and regulators increasingly leverage the Core Carbon Principles, the ICVCM is working across jurisdictions to support market interconnectedness and interoperability through high-integrity standards. The following selection of local, national and regional contexts and initiatives illustrates how global principles are being translated into practical action — reinforcing policy frameworks, strengthening market infrastructure and advancing climate ambition on the ground.

Regional developments





USA	Latin America and the Caribbean	Africa	Southeast Asia		
Total issued carbon credits in region:					
46,674,151	35,509,824	40,148,672	7,389,149		
	Share of total issue	ed credits globally:			

15.49% 17.52% ~ 3.22 %

Number of projects using CCP-Approved methodologies:

60 45 22

Growth potential:

Carbon market supply and demand leader: In 2023 and 2024, the USA issued the highest proportion of the world's carbon credits, followed by India; it also generated the greatest demand for CORSIA credits in 2024 (source: Abatable).

20.36%

84

The region is already responsible for nearly a quarter of global carbon credit issuances with potential for a growth in supply, particularly of nature-based solutions.

High-integrity African carbon markets could mobilise up to \$6bn in climate finance annually by 2030, while supporting up to 30 million jobs across the continent.

Market could reach US\$3 trillion by 2050, creating 13.7 million new jobs and reducing 1.1 billion metric tonnes of carbon emissions annually (source: Abatable).

Source: MSCI, October 20

Snapshots around the world

UK The UK's voluntary carbon and nature markets consultation proposes endorsing the CCPs as a minimum baseline for integrity. The UK is also developing its Greenhouse Gas Removal standards for use in the UK

ETS in line with the CCPs.

... France

The French government has launched a "charter", supported by 17 companies, which invites organisations to commit to using carbon credits aligned with the ICVCM standards.

Japan

The Tokyo metropolitan government promotes the use of CCP-labelled credits as part of its carbon marketplace for small and medium-sized enterprises, launched in March 2025.

Malaysia

The Malaysia Forest Fund has announced that its Forest Carbon Offset standard closely follows international best practices, including Integrity Council and CORSIA requirements.

Snapshots

African Union

Cross-boarder collaboration

The Ministry of Agricultural Development and Irrigation has issued its national guidance for agricultural carbon markets, emphasising that carbon credits should comply with international standards

Peru

including the CCPs.

Brazil The official summary of responses to the Brazilian Development Bank and Brazil's Ministry of Environment's joint public consultation on the country's voluntary carbon credit certification system highlighted that respondents considered alignment with international standards such as the CCPs to be an indispensable condition to ensure credibility.

Ethiopia

The Ethiopian government has released its National Carbon Market Strategy, outlining plans to develop a regulatory framework for voluntary carbon market activities, informed by international best practices including the CCPs.

Pakistan...

The Government of Pakistan has launched its Policy Guidelines for Trading in Carbon Markets, stating its commitment that the monitoring, reporting and verification of its carbon market will be consistent with transparency obligations in Article 6 and the CCPs.

Singapore

- The Monetary Authority of Singapore has made CCP alignment a requirement for transition credits and is actively working with the ICVCM to ensure these credits meet Article 6 integrity thresholds.
- The National Climate Change Secretariat, the Ministry of Trade and Industry and Enterprise SG have launched draft guidance on the voluntary use of carbon credits and proposed that corporates refer to the CCPs.
- The ICVCM has partnered with the Singapore National Climate Change Secretariat and the **Economic Development Board** of Singapore.
- The ICVCM launched its Asia office in Singapore in October 2025.30

New Zealand

The Indonesian Ministry of Forestry and the ICVCM have formalised a strategic partnership to support the alignment of Indonesia's forestry carbon credits with

.... Indonesia

the CCPs.

Cross-border collaboration

- The governments of Kenya, Singapore and the United Kingdom launched the Coalition to Grow Carbon Markets in June 2025. Its members now also include Canada, France, Luxembourg, New Zealand, Panama, Peru, Switzerland and Zambia. The **Coalition issued Shared Principles on** the use of carbon credits by corporates at COP30. The ICVCM is working with the Coalition to support seamless alignment between the supply and demand sides of the market.
- The African Union has launched its carbon market principles for consultation, proposing to encourage buyers and sellers to follow the standards set by the CCPs.



70 | Chapter 4 - Policy to Practice



Alongside the vital support and engagement of governments outlined above, this chapter highlights the growing network of collaborative stakeholders — from multilateral organisations to civil society platforms — who are driving credibility, equity and impact across the carbon market

landscape.



Supporting institutions

The Core Carbon Principles are supported by several intergovernmental and multilateral initiatives, including:

- The United Nations Development Program (UNDP) — the UN program has <u>pledged</u> to apply the CCPs and Assessment Framework to address quality as part of the High Integrity Carbon Markets Initiative.
- The United Nations Environment Program (UNEP) — the UN program endorses and supports the ICVCM in developing best practice requirements for independent standards and market stakeholders.
- Article 6 Implementation Partnership the ICVCM is a partner, supporting the alignment of the voluntary and compliance markets.
- NDC Partnership the ICVCM is an associate <u>member</u> endorsed by the Singapore and UK governments.
- The World Bank its latest <u>guidance</u> for countries navigating decisions on carbon markets highlights the CCPs as helping to reinforce integrity, governance, coordination and integration across the global carbon market with a clear and comprehensive assessment framework.

- The Climate Crisis Advisory Group headed by the former UK chief scientific adviser Sir David King and made up of some of the world's leading scientists, it has <u>endorsed</u> the ICVCM's work to raise the quality of carbon credits.
- The International Organisation of Securities
 Commissions (IOSCO) it references the
 ICVCM as a governing body setting standards
 for high integrity, as part of the final report
 on good practices in the voluntary carbon
 market.
- The International Swaps and Derivatives
 Association (ISDA) the organisation
 welcomed the ICVCM's work on increasing
 standardisation and quality in the market
 and integrated the ICVCM's standards into
 the Verified Carbon Credit Transactions
 Definitions.

Alongside growing government and institutional support for the CCPs, the ICVCM works with a diverse range of civil society leaders to build a shared vision of high integrity — one that is inclusive of traditionally marginalised groups, including Indigenous Peoples, local communities, women and children.

A cornerstone of this work is the Indigenous Peoples and Local Communities Engagement Forum, which the ICVCM helped to establish and continues to support as a vital partner.



Indigenous Peoples and Local Communities Engagement Forum

Stewarding over 40% of ecologically intact landscapes, both Indigenous Peoples and local communities have an indispensable role to play in protecting ecosystems and limiting climate change — and therefore in carbon markets. Yet, they remain among the most underserved and marginalised groups in global climate action. They receive less than 1% of climate finance and are often excluded from decisions that affect their lands and livelihoods.

The Indigenous Peoples and Local Communities Engagement Forum was launched at COP28 in 2023. It aims to ensure that the carbon market upholds the rights, interests, and principles of self-determination of both Indigenous Peoples and local communities. The Forum maintains a neutral position on the carbon market, while supporting those communities who choose to engage to be heard, recognised and treated as respected partners and decision-makers.

The Forum operates independently from the ICVCM and currently includes five regional representatives — from Africa, Asia, Latin America, North America, and Oceania. Its membership and governance ensure that community leadership and diverse perspectives are central to all decisions.

Over the past year, the Forum has deepened its global engagement through high-profile events and consultations. It launched its Carbon Market Engagement Strategy at COP30 in Belém, Brazil, having convened regional roundtables and engaged a diverse range of organisations and community representatives at events such as the Bonn Climate Change conference, London Climate Action Week, the Africa Climate Summit, and Africa Climate Week as well as the 16th Conference of the Parties to the UN Convention on Biological Diversity in 2024. The Forum also participated in COP29 and collaborated with partners at the Indigenous Pavilion and other venues, ensuring that community voices shaped discussions on integrity and benefit-sharing in carbon markets.







Removing barriers to market entry

Capacity
building and
community selfstrengthening

Defining best practice in benefit-sharing

Defining best practice in grievance

Respecting and backing Traditional Ecological Knowledge and customary governance

While the Forum's strategy is designed to evolve through continuous dialogue and collaboration with relevant communities and stakeholders, its focus will now shift towards implementation. Specifically, it aims to:

- Maintain a digital platform (already live) hosting toolkits and guidelines tailored for both Indigenous Peoples and local communities considering carbon market participation
- Build a comparative database of benefitsharing models and safeguards — including attention to land, tenure and property rights
- Develop a training programme with partners to support capacity self-strengthening for Indigenous Peoples and local communities engaging with carbon markets

By providing tools and support for communities to navigate the carbon market — should they choose to — the Forum aims to reduce reliance on external actors and intermediaries, and to retain influence and control within communities themselves.

As part of its outreach and engagement, the Forum has also launched a new website — indigenousengagementforum.org — to serve as a hub for resources, event updates, and community-driven insights.

The ICVCM will continue to partner the Forum by providing secretariat assistance and support through its relevant Governing Board committee. This includes help with fundraising, overseen by the Forum's leadership, and development of outreach pathways — both online and through strategic partners best placed to engage with communities.

76 | Chapter 5 - Collective Action





Continuous Improvement Work Programs

High-integrity carbon markets should evolve by drawing effectively on new science, emerging technologies, evidence, and learning. The ICVCM is strengthening the foundations of its work through continuous improvement and evidence-based innovation. This chapter introduces the Continuous Improvement Work Programs (CIWPs), which identify priority areas for refinement across methodologies and rules, and the Science and Research Network (SRN), a global initiative connecting researchers and institutions to the ICVCM's mission.

Together, these efforts ensure that the CCPs remain grounded in the latest data, responsive to emerging insights and inclusive of diverse scientific perspectives.

The ICVCM's Continuous Improvement Work Programs (CIWPs) advance the evolution of the carbon market by harnessing the latest science, emerging technologies and innovative approaches. The development of the work programs is an inclusive process shaped by a wide spectrum of stakeholders — including Indigenous peoples' representatives, local community members, civil society organisations, academics, think tanks, project developers, carbon market registries, carbon-crediting programs, technical experts, industry associations, carbon credit buyers, investors, and financial institutions among others. Their contributions ensure that diverse expertise and perspectives inform every recommendation.

The goal is to identify emerging best practice so that it can be used to accelerate high-integrity greenhouse gas emissions reductions and removals.

The work programs aim to:

- Address areas where innovative approaches and technological advances will enable stronger, more transparent and more robust solutions across the entire carbon market
- Convene leading market experts and key stakeholders in a collaborative effort to harness existing and emerging best practices to address the complex challenges and opportunities facing the market
- Foster a virtuous cycle of feedback between voluntary and emerging compliance markets around the world.



Completed work programs

The first set of work programs launched in 2024, focusing on three critical issues:







Permanence —

identifying the best approaches to ensuring carbon reductions and removals are maintained in the long term and addressing the risk of reversal. Paris Agreement
alignment — exploring how
the Assessment Framework
takes into account issues
related to the Paris Agreement,
specifically in relation to:
Corresponding adjustments
under Article 6 of the Paris
Agreement, project baselines
and NDCs, and the relevance
of the Paris Agreement Share
of Proceeds for Adaptation (for
the Adaptation Fund).

Sustainable Development Benefits and Safeguards —

exploring opportunities to further evolve Assessment Framework requirements in relation to specific issues highlighted in the current version of the Assessment Framework.

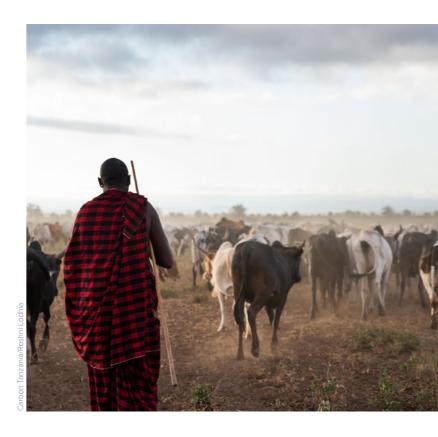
These efforts addressed key questions facing carbon markets and laid the groundwork for future developments in the Assessment Framework. The resulting reports are now publicly available on the ICVCM website.³¹

The work program on Permanence is helping foster alignment across market segments and informed the development of the "Requirements for activities involving removals under the Article 6.4 mechanism" standard, with the concept of a monetary permanence reserve included in the final version of the standard.

The Paris Agreement Alignment work program has recommended that CCP-labelled credits used in decarbonisation should not require a corresponding adjustment by the relevant government under Article 6, paragraph 2 of the Paris Agreement but such adjustments should continue to be transparently presented through the CCP Attribute to indicate hostcountry authorisation. It also supports the carbon markets incorporating a voluntary 5% contribution to climate adaptation, aligned with levels in the Article 6, paragraph 4 mechanism with flexibility if such contributions become mandatory. It was also recommended that the Assessment Framework provide that project baselines should aim for net zero by 2050, using clear guidance on how to set targets, and available technologies.

Like its counterparts above, the Sustainable
Development Benefits and Safeguards work
program was shaped by inputs from a diverse
range of stakeholders — which in this case
included representatives of Indigenous Peoples
as well as local communities, project developers,
civil society organisations, and technical
experts from entities such as UNDP and the

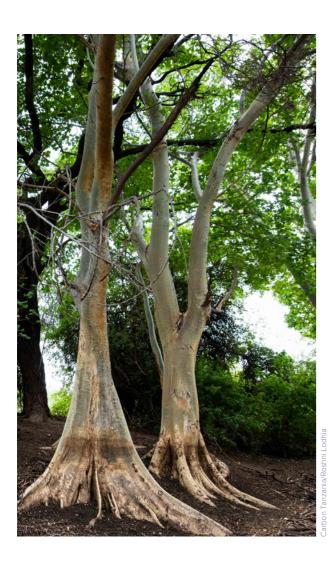
International Finance Corporation (IFC) among others. It recommended future updates to the Assessment Framework to develop further the requirements for social and environmental protections and benefits in carboncrediting projects. Key suggestions included strengthening further the current requirements on safeguards like labour rights and anti-displacement measures, developing more detailed guidance on Free, Prior and Informed Consent (FPIC), requiring more transparency in and standardised approaches to sustainable development assessment and reporting.



82 | Chapter 6 - Improving Impact
The Core Carbon Principles Impact Report 2025 | 83

Current topic areas

Reports from work program meetings on the topics of transparency, scalability and standardisation and (energy) transition credits are now being written up, while the work program meetings on the oversight of and support to validation and verification bodies (VVBs) are ongoing.



Market Transparency, Scalability and Standardisation

This work program gathered an inclusive and diverse group of expert stakeholders to address the urgent need for transparent, efficient, and connected market infrastructure capable of supporting rapid growth. It explored how to build a more integrated and transparent system across three key areas:

- Registry interoperability including the creation of meta-registry functions and development of standardised carbon contracts, alongside efforts to navigate legal constraints and strengthen trading transparency
- Pricing transparency and integrity aiming to promote fair revenue-sharing, align transaction fees and improve price discovery to reflect true market value
- Structured finance examining how better risk data, financing tools and investor engagement mechanisms can unlock capital for project developers and drive investment into high-quality mitigation activities.

Oversight of Validation and Verification Bodies (VVBs)

A diverse range of stakeholders in this work program are addressing consistency and robustness of validation and verification processes — fundamental to trust in carbon credits. It is examining the roles and responsibilities of VVBs, accreditation bodies and carbon-crediting programs to clarify accountabilities and reduce overlaps or gaps in the assurance chain. The work also explores how greater transparency, monitoring and accountability could be embedded into validation and verification processes to improve confidence and comparability across programs.

Transition Credits

This work program has collected expert review and discussion on crediting the energy transition (coal shutdown, etc.) and the justice component of such transitions, looking at what it takes for transition credits to be high integrity. It addresses complex questions around additionality, double counting and reversal risk. The goal of the work is to understand whether the Assessment Framework would benefit from specific provisions relating to this carbon credit asset type in future.



84 | Chapter 6 - Improving Impact
The Core Carbon Principles Impact Report 2025 | 85

Upcoming focus areas

Additional work programs will be launched in 2026, covering a range of further topics:

- Measurement, Reporting and Verification (MRV) Systems (including Digital MRV)

 exploring best practices for integrating emerging and newly established digital MRV tools and techniques into carbon markets
- Simplified Approaches for Small Projects —
 identifying ways to scale deployment of smallscale projects and reduce barriers and costs
 to participation in the voluntary carbon market
- Jurisdictional Crediting Approaches —
 defining effective methods to credit and
 account for GHG emission reduction and
 removal efforts at larger, jurisdictional scales
- Renewable Energy Crediting Approaches —
 examining how to strengthen methodologies
 and improve confidence in the additionality of
 renewable energy carbon credit projects
- Permanence (Monitoring and Compensation)

 building on earlier work to explore systems
 for managing reversal risk, including a

 Permanence Fund, pooled buffer reserves

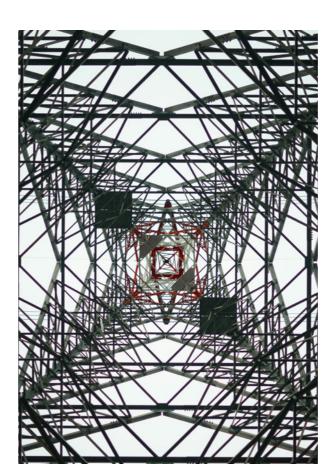
 and insurance mechanisms



The Science and Research Network

A strategic initiative launched by the ICVCM to strengthen the scientific foundations of high-integrity carbon markets, the <u>Science and Research Network (SRN)</u> links independent science and research organisations with priority topics from the <u>Core Carbon Principles</u> (CCPs), related assessments and work programs. The goal is to bring rigorous, practical research into view so the carbon market can continue to evolve with high integrity. Many science and research organisations are already developing innovative approaches to explore and identify emerging best practice in carbon markets.

The SRN provides a structured pathway for those initiatives to contribute those insights in ways that have practical applications in the real world. It operates through two main components:



Public web platform

- Hosts a regularly updated list of priority research topics identified through the ICVCM's assessments and CIWPs.
- Enables researchers to respond to calls for evidence and collaborate on relevant themes.
- Helps researchers align their own work with existing market research needs

Institutional partnerships

- The ICVCM may engage in non-exclusive, non-funded collaborations with scientific organisations, at its own discretion.
- Encourages in-kind contributions and strategic coordination to advance highintegrity methodologies, program rules and market evolution.
- Promotes transparency, inclusivity and alignment with the ICVCM's strategic objectives for 2025–2028.

As the carbon market evolves, its strength will rest on the collective commitment to integrity and innovation. By combining rigorous science, diverse stakeholder perspectives, and practical solutions, the market can more effectively deliver real climate benefits and shared prosperity.

Conclusion

As this report has shown, the Core Carbon Principles are delivering a sophisticated approach to enhancing the global carbon market by embedding high-integrity standards, strengthening governance, and fostering transparency. From the launch of the Core Carbon Principles to the approval of high-integrity methodologies and the development of inclusive stakeholder platforms, the ICVCM's work is creating the conditions for a more credible, effective and equitable carbon market.

The ripple effects of this work are already visible. CCP-labelled credits are commanding price premiums, attracting buyers seeking quality and confidence. Governments are working to integrate CCPs into domestic and international frameworks, and carbon-crediting programs are aligning their methodologies to meet the CCP threshold. These developments signal growing trust in the global carbon market supported by the Core Carbon Principles— and a shared commitment to climate action that delivers real, measurable impact.

The ICVCM's collaborative approach — through inclusive engagement with all stakeholders - partnerships, multiregional engagement, and support for the Indigenous Peoples and Local Communities Engagement Forum — ensures that high integrity is not just a technical standard, but a shared value. The Continuous Improvement Work Programs and the Science and Research Network further reinforce this by connecting market evolution to the latest science, emerging technologies and diverse expertise.

For stakeholders — whether governments, investors, project developers or communities — the ICVCM's work offers a clear path forward. It provides assurance that time, effort and resources invested in high-integrity carbon markets will reap sustainable rewards. By collectively raising the bar, systematically embedding respect for human rights, and building trust, all carbon market stakeholders can play a meaningful role in achieving global climate goals, supporting sustainable development, and protecting the planet for generations to come.

Conclusion The Core Carbon Principles Impact Report 20

Endnotes

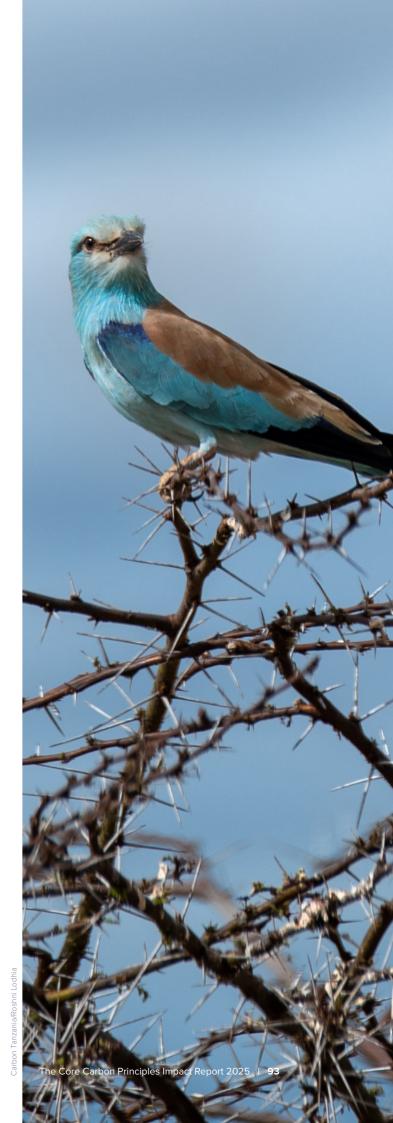
- Carbon Pulse, DATA DIVE: October sees big jump in retirements of CCP-tagged carbon credits as market awaits next ICVCM decision, November 2025
- Ecosystem Marketplace. State of the Voluntary Carbon Market 2025, Forest Trends October 2025.
- Calyx Global, Are Carbon Credit Quality Indicators
 Delivering? September 2025. ClearBlue Markets. ICVCM
 Says Current Renewable Energy Methodologies Ineligible for CCP Label. October 2025.
- 4. MSCI data, accessed October 2025.
- IUCN Issues brief, Forests and Climate Change, February 2021
- Forest Trends briefing, Illegal Deforestation for Forest Risk Commodities Dashboard: Tanzania, October 2022.
- Dr Kate McAlpine; Belinda Mziray; Solomon Anderson; Isabel Cooper, Harnessing Carbon Revenue for Sustainable Development in Pastoralist Communities: A Case Study from Makame WM, 2024.
- International Energy Agency report, A Vision for Clean Cooking Access for All, 2023.
- 9. Ibid.
- 10. Ibid

92 | Endnotes

- 11. World Health Organisation factsheet, Household air pollution, October 2024.
- 12. MSCI data, accessed October 2025.

- UpEnergy press release, UpEnergy issues Africa's first-ever electric cooking carbon credits under Gold Standard's new metered methodology, March 2025.
- The Climate and Clean Air Coalition project briefing, Uganda - Develop a Clean Cooking MRV System to Support New Regulations, July 2025.
- The International Energy Agency report, Global Methane Tracker 2024, March 2024.
- The International Energy Agency report, Global Methane Tracker 2023, February 2023.
- World Resources Institute briefing, Where Do Emissions Come From? 4 Charts Explain Greenhouse Gas Emissions by Sector, December 2024.
- 18. The known denomination for dichlorodifluoromethane.
- US Environmental Protection Agency website, accessed November 2025.
- United Nations Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report (AR5), 2014.
- Global Efficiency Intelligence study, Stopping a Super-Pollutant: N2O Emissions Abatement from Global Adipic Acid Production, April 2023.
- 22. Verra data, accessed October 2025.
- 23. University of Stirling study, Resolving the intricate role of climate in litter decomposition, January 2023.
- National Aeronautics and Space Administration (NASA) article, NASA Satellites Help Quantify Forests' Impacts on Global Carbon Budget, February 2021.

- World Bank, 2025, State and Trends of Carbon Pricing 2025, p51. See, Open Knowledge Repository.
- 26. World Bank, 2025, State and Trends of Carbon Pricing 2025, p49. See, Open Knowledge Repository.
- Department of Energy Security and Net Zero, Voluntary
 Carbon and Nature Markets Consultation, 2025. See,
 Voluntary carbon and nature markets: raising integrity GOV.
- Enterprise Singapore, Guidance on the Role of Carbon Credits in Corporate Decarbonisation, 2025, p6. See, CC09F5F45AD14D8EBD8AFD12AF3E5E82.ashx
- 29. Singapore National Climate Change Secretariat, Singapore Will Contract High Quality Nature Based Carbon Credits From Four Projects, 2025. See, Singapore Will Contract High Quality Nature Based Carbon Credits From Four Projects
- The ICVCM press release, Integrity Council launches
 Asia Pacific hub; partners with National Climate Change
 Secretariat and Singapore Economic Development Board,
 October 2025.
- 31. See reports on Regulatory and Policy Alignment; Standardised and Innovative Crediting Approaches; Market Modernisation, Transparency, and Oversight; and Equity, Impact and Safeguards on the ICVCM website: https://icvcm. org/continuous-improvement-work-programs



The market's transformation is still unfolding, but its direction is now unmistakable.

Annette L. Nazareth,

Chair of the Governing Board,
Integrity Council for the
Voluntary Carbon Market



The Integrity Council for the Voluntary Carbon Market (ICVCM) is an independent, non-profit governance body for the voluntary carbon market, which aims to ensure the voluntary carbon market accelerates a just transition to 1.5°C. The ICVCM aims to set and maintain a voluntary global threshold standard for quality in the voluntary carbon market. The threshold standard is based on the ICVCM's Core Carbon Principles (CCPs) and is implemented through an Assessment Framework that sets out what high quality means by reference to those principles.

For any issues regarding individual projects, please contact the program that is responsible for the methodology being used. Any other enquiries relating to projects or this report, please email info@icvcm.org



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