

# **PLASTIC CREDITS AT A GLANCE**

# October 2025



Plastic pollution has become one of the most urgent environmental challenges of our time. Every year, more than 400 million tons of plastic waste are generated globally, with over 90 % remaining unrecycled. Policymakers, businesses, and communities are striving to shift towards a circular plastics economy, yet a significant funding gap continues to limit progress.

Plastic credits are emerging as a powerful, results-based financing instrument that bridges this gap by linking public and private capital to verified pollution-reduction activities. When applied responsibly, they enable organization's to financially support waste-reduction and recycling projects while ensuring quantified, measurable, and verifiable outcomes.

According to UNEP (2023), an estimated USD 1.64 trillion of investment will be required by 2040 to eliminate global plastic pollution — signaling a major opportunity for climate-aligned investors, ESG-driven corporates, and development finance institutions to act

# 400M

90%

Tons Annual global plastic waste generation

Percentage of plastic waste not recycled

# **USD 1.64 trillion**

of investment will be required by 2040 to beat plastic pollution



# WHAT IS A PLASTIC CREDIT?

While definitions vary among programmes and geographies, Firstgreen adopts the following working definition aligned with global standards:

"A plastic credit is a transferable unit representing a specific quantity of plastic that is avoided from use, collected and managed, or recycled as a result of a verified project activity."

Each credit denotes a measurable outcome, expressed typically in kilograms (kg) or tonnes (t) of plastic waste that has been avoided, recovered, or recycled. Credits are issued after third-party verification, ensuring that finance is disbursed only once tangible environmental results are achieved.

This approach transforms plastic waste management into a traceable, monetised, and accountable framework, empowering both the public and private sectors to participate in the transition towards a circular, low-waste economy.



# WHY PLASTIC CREDITS MATTER

Driving Circularity and Accountability in the Plastics Economy

### The Value of Plastic Credits

Plastic credits are more than an offset mechanism—they are a performance-linked instrument that directly channels finance to activities reducing, recovering, or recycling plastic waste. By assigning a monetary value to verified plastic reduction, plastic credits:

- Incentivize waste prevention and recycling at the local and industrial level.
- Attract private-sector investment into waste-management infrastructure.
- · Improve traceability and transparency through third-party verification and registry systems.
- · Strengthen ESG and compliance frameworks, including Extended Producer Responsibility (EPR).
- · Empower informal and marginalized waste workers through fair benefit-sharing.

When integrated within broader sustainability strategies, plastic credits enable corporates to demonstrate measurable environmental impact aligned with global sustainability reporting frameworks such as GRI 306, CSRD, and SDG 12.

### **Benefits for Stakeholders**

Stakeholder	Key Benefits	Illustrative Outcome
Corporates & Producers	Compliance with EPR mandates; enhanced ESG disclosures	"Plastic-neutral" or "plastic- positive" claims backed by verified data
Investors & Philanthropies	Access to impact-linked instruments; risk-diversified portfolios	Blended finance in waste management and recycling ventures
Communities & NGOs	Inclusion, employment, and fair compensation for waste pickers	Improved social and economic well-being
Governments & Regulators	Strengthened enforcement of circular economy policies	Achievable national recycling and waste-reduction targets



### What Activities Generate Plastic Credits?

Plastic credit projects cover the full plastic lifecycle, from upstream innovation to downstream waste recovery.

Stage	Goal	Examples of Eligible Activities
Upstream (Avoidance / Innovation)	Reduce problematic plastic use	Packaging redesign, material substitution, reuse/refill systems
Midstream (Collection & Management)	Prevent leakage into nature	Household segregation, community collection, river/ocean cleanup
Downstream (Landfill Diversion)	Divert waste from landfills	Recovery from dumpsites, co- processing, recycling integration
Recycling & Circularity	Increase recycled material use	Mechanical/chemical recycling, secondary material feedstock generation

Plastic credits create a revenue stream that can make low-margin waste operations financially sustainable. They also support results-based project financing, where investors are paid only upon verified impact.

This ensures alignment of

incentives across all stakeholders—
from producers to recyclers—
resulting in measurable,
reportable, and scalable outcomes.





# The Plastic Crediting Cycle From Waste to Verified Impact

# Driving Circularity and Accountability in the Plastics Economy

Plastic crediting operates on a results-based finance model where each verified tonne of plastic avoided, recovered, or recycled is converted into a credit. This credit can then be purchased by a company seeking to support verified plastic pollution reduction. The process ensures that funding is tied directly to measurable environmental outcomes, not just intent.

The cycle is transparent, auditable, and governed by independent standards such as Verra Plastic Waste Reduction Standard (PWRS) or PCX Plastic Pollution Reduction Standard (PPRS).

### Standard Development **Project Design** Establish baseline methods, monitoring Define project boundary, waste type, rules, and verification criteria and expected impact Ŷ 器 **Data Collection Transaction** Track plastic collection, sorting, and Credits sold to buyers; once retired, recycling using digital MRV systems $_{\mathsf{n}}$ environmental benefit can be claimed 2 **Credit Issuance** Verification Verified tonnes issued as credits on Independent third-party audit confirms recognised registries data accuracy and additionality

# **Ensuring Transparency and Accountability**

Plastic crediting introduces rigour and traceability by mandating several key mechanisms that ensure every credit represents genuine, quantifiable impact:

- Unique serialised credit IDs to prevent double counting
- · Public project registries with activity and verification data
- Independent validation and verification bodies (VVBs) for impartial auditing
- Digital MRV integration, enabling real-time data tracking and geo-tagged evidence



### **Responsible Claims**

After credits are verified and retired, companies can publicly claim to have supported plastic waste recovery equivalent to the purchased volume.

However, plastic credits demonstrate **contribution** rather than compensation.

- √ "We financed verified recovery of 1,000 tonnes under Verra PWRS"
- X "We are plastic neutral" (unless fully validated)





# The Global Plastic Credits Market

### Standards, Buyers, and Pricing Dynamics

The global plastic credit market is in an early growth phase, yet rapidly evolving as corporates, governments, and investors seek credible mechanisms to reduce plastic waste. Since 2021, over 160 projects have been registered across emerging economies—mainly in South Asia and the Asia-Pacific region—reflecting high innovation and strong demand for circular-economy financing.

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# Independent & Verified Standards

**Verra PWRS** – Third-party verification; open registry; high integrity

**GreenBlue RMS** – Focus on traceable recycled inputs

**Zero Plastic Oceans OBP** – Ocean-bound plastic recovery focus

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# Semi-Independent Platforms

**PCX PPRS** – Corporate projects and internal marketplaces

**BVRio CCM** – Voluntary schemes and blended-finance models

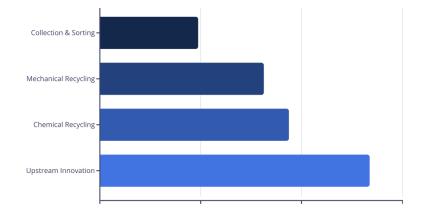
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### **Emerging Private Platforms**

**CleanHub, Plastic Bank, rePurpose Global** – Internal monitoring systems; variable registry transparency

# **Market Pricing and Drivers**

Plastic credit prices vary according to project type, location, and social-impact component. Typical market range as of 2024: **USD 140 – 670 per tonne** of plastic managed.



Projects with community engagement and traceable data systems attract premium pricing and higher investor confidence. By 2030, the global plastic credit market is projected to exceed **USD 1 billion annually**, driven by expansion of EPR frameworks, integration of plastic-linked outcome bonds, and growth of digital MRV and blockchain traceability.



# **Integration with EPR Compliance**

# Aligning Corporate Responsibility with Measurable Impact

Extended Producer Responsibility (EPR) holds producers accountable for the entire lifecycle of plastic packaging—from production to post-consumer management. It mandates that Producers, Importers, and Brand Owners (PIBOs) ensure collection, recycling, or safe disposal of a defined proportion of the plastics they introduce into the market.

However, compliance gaps remain due to fragmented waste ecosystems and financing challenges. Plastic crediting mechanisms serve as a complementary tool that links verified waste recovery with corporate EPR obligations.

# Pre-EPR Phase Context: Countries or sectors yet to formalise EPR Role: Enables voluntary financing of plastic waste collection and recycling projects Context: Fully implemented EPR regulations (e.g., India, Philippines, UK) Role: Supplements producer responsibility targets and enables overachievement claims Transitional EPR Mature EPR Systems Context: Fully implemented EPR regulations (e.g., India, Philippines, UK) Role: Supplements producer responsibility targets and enables overachievement claims

**Context:** EPR rules exist but operational systems still developing **Role:** Serves as interim compliance tool with verified results and traceable registry data

# **India's Leadership Opportunity**

India's EPR Plastic Waste Management Rules (2021, amended 2022) create a regulatory pathway for verified crediting. Through the Central Pollution Control Board (CPCB) portal, PIBOs can purchase or generate recycling certificates validated by accredited recyclers.

Plastic credits in India therefore represent:

- A verified compliance instrument within EPR obligations
- A new investment channel for private-sector engagement in waste management
- A traceable funding mechanism for local collection and recycling infrastructure
- · An opportunity to support informal waste workers through structured programmes





# **Innovative Financing Models**

# Mobilising Private Capital for Circular Waste Systems

Despite global policy momentum, the plastics value chain faces a funding shortfall exceeding **USD 1.6 trillion by 2040**. Traditional grants and CSR initiatives are insufficient to scale waste management infrastructure. To bridge this gap, results-based financing—anchored in verified impact—has emerged as a new mechanism to crowd-in private capital.

# □ World Bank Plastic Waste Reduction-Linked Bond (2024)

A landmark example mobilizing **USD 14 million** for projects in Ghana and Indonesia, with investors receiving returns tied to verified issuance of plastic credits. This demonstrates how plastic credits serve as a measurable impact metric, transforming waste management from a cost center into an investment-grade sustainability asset.

Investor Commitment

# **Project Implementation**

# MRV Verification

Investors provide upfront capital to plastic credit projects or outcome-linked bonds

Verified collection, sorting, and recycling activities undertaken by project operators

Digital monitoring systems track outcomes; third-party verifiers audit results

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### **Credit Issuance**

Credits issued only after verification of measurable environmental outcomes

### **Revenue Generation**

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Sale or retirement of credits generates revenue to repay investors, ensuring accountability

# Key Opportunities for India and Emerging Markets

- Plastic Waste Credit Funds pooling CSR, ESG, and development finance
- Municipal waste PPP projects integrating plastic credits into revenue models
- Outcome-based grants and impact bonds co-financed by state governments and corporates
- Article 6.2 cooperative approaches linking plastic credits with carbon credits for dual-impact financing



Blockchain-based traceability ensures tamper-proof, transparent, and verifiable reporting across supply chains and sustainability systems.



### **Blended Finance**

Mobilising public–private capital partnerships to achieve scalable, sustainable, and impactful growth across renewable energy transitions.





# FIRSTGREEN CONSULTING

### Driving the Plastic Credit Revolution & End-to-End Expertise in Circular Economy

# **Our Role in the Plastic Credit Ecosystem**

Firstgreen Consulting acts as a technical and financial integrator across the full lifecycle of plastic credit projects—from concept design to verification, issuance, and monetization. We combine deep experience in sustainability certification (LEED, IGBC, TRUE Zero Waste) with ESG advisory and MRV system development, offering clients a single-window solution for developing credible, bankable plastic credit projects.



### **Project Development**

Design and implementation of plastic collection, segregation, and recycling initiatives with verifiable metrics delivering tangible waste diversion



### **Verification & MRV Advisory**

Establish digital monitoring, reporting, and verification systems compliant with Verra, PCX, and CPCB EPR standards



### **EPR Compliance Support**

Align corporate obligations with voluntary and mandatory EPR credit systems for simplified regulatory compliance



### **Credit Structuring & Trading**

Assist clients in credit registration, portfolio bundling, and sale to verified buyers for revenue realisation



### **Capacity Building**

Training for waste-management partners, recyclers, and local bodies to strengthen project delivery ecosystem



### **Global Partnerships**

Collaboration with World Bank, ADB, Verra, and leading technology providers for scalable solutions



# Why Partner with Firstgreen?

### **Proven Expertise**

Over 15 years of leadership in renewable energy, waste management, and sustainability certifications across India, Africa, and Asia

### **Digital Capability**

Development of blockchain-enabled traceability tools for plastic credit accounting and real-time verification

### **Standards Alignment**

Hands-on experience with Verra, Plastic Bank, and EPR-linked credit frameworks ensures compliance-ready design

### Impact-Driven Model

Integration of social inclusion metrics ensuring waste pickers and micro-entrepreneurs benefit directly from credit revenue streams



Your Strategic Partner for Verified Circular Impact

# **Our Role in the Plastic Credit Ecosystem**



Stage	Firstgreen Deliverable	Output
Feasibility & Baseline	Waste stream analysis, collection mapping	Project feasibility report
MRV & Methodology Design	Digital data collection templates, verification protocols	MRV implementation plan
Verification & Validation	Coordination with VVBs and crediting bodies	Verified project listing
Credit Marketing	Buyer identification, transaction documentation	Credit sales & revenue realisation
Impact Reporting	ESG alignment and SDG impact statement	Public disclosure-ready report



Energy Efficiency|Renewables|Sustainability

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