Autify Plastic Recovery Standard (APRS) - Version 1.0

Introduction:

The **Autify Plastic Recovery Standard (APRS)** is a decentralized, transparent, and inclusive framework designed to certify and tokenize verified plastic recovery efforts across India. It enables verified plastic credits to be generated from real-world collection and processing activities, providing recyclers with higher income opportunities and connecting them with global ESG-conscious buyers.

Purpose of APRS:

- To support **Indian recyclers, aggregators, and waste workers** in accessing new revenue streams
- To ensure **traceable, verifiable plastic recovery** and promote circularity
- To enable the creation, issuance, and sale of **plastic recovery credits** backed by data and proof
- To bridge the gap between **on-ground impact** and **global climate responsibility goals**

Eligibility Criteria:

1. Who Can Register

- Informal and formal plastic waste collectors and aggregators
- Dry Waste Collection Centers (DWCCs)
- Material Recovery Facilities (MRFs)
- Certified plastic recyclers or co-processors

2. Geographic Focus

- APRS is currently focused on India, with special support for tier-2/3 cities and underserved waste ecosystems.

3. Approved Plastic Types

- PET (Polyethylene Terephthalate)
- HDPE, LDPE (High/Low Density Polyethylene)
- PP (Polypropylene)
- MLP (Multi-Layer Plastics)
- PS (Polystyrene)
- Other rigid and flexible plastics, subject to review

4. Approved Recovery Activities

- Collection and aggregation
- Sorting and segregation
- Mechanical recycling
- Co-processing in cement kilns (as fuel substitution)

Credit Issuance Framework:

1 Credit = 1 kg of plastic collected and responsibly managed

Conditions for Issuance:

- Clear documentation of:
  - Quantity collected (weighment slips or digital logs)
  - Type and grade of plastic
  - Proof of responsible end-use (recycler/co-processor)
  - GPS-tagged photos
  - Date, time, and location of activity

Issuance Frequency:

- Monthly batches (minimum 100 kg per batch)

Documentation Format:

- Digital only (via mobile/web tools)
- Formats accepted: PDF, JPG, CSV, JSON

Monitoring, Reporting & Verification (MRV):

Tiered MRV Model:

- **Tier 1**: Self-reporting + basic documentation (for recyclers)
- **Tier 2**: Internal review by Autify MRV team (photo + data crosscheck)
- **Tier 3**: Optional third-party field verification (for premium buyers or large batches)

Approved Verifiers:

- Autify Network-appointed field agents
- Accredited NGOs and environmental audit agencies
- National partners (e.g., TUV, SGS India)

Fraud Prevention:

- Use of timestamped, geo-tagged images
- Cross-referencing of submitted batch vs. historical submissions
- AI-based image and location pattern detection (coming soon)

Plastic Credit Lifecycle:

1. Submission

Recyclers submit data via Autify Network tools (WhatsApp, mobile app, web form)

2. Review & Approval

Verifier checks batch documents. Admin issues credits to recycler's digital wallet/account.

3. Credit Registration

Credit is listed on the Autify Network Credit Registry (on-chain and off-chain)

4. Listing & Sale

Verified credits become visible on marketplace for ESG buyers

5. Retirement

Once a credit is purchased and marked as 'retired', it is removed from trade circulation permanently. Retirement generates a digital certificate.

Stakeholder Roles:

Role	Responsibilities
Recycler	Collect plastic, maintain basic documentation, submit data monthly
Verifier	Review submissions, flag anomalies, approve or reject batches
Autify Admin	Maintain registry, manage marketplace, provide audit trail
Buyer	Purchase and retire credits, optionally request impact reports

Transparency & Traceability:

- Each issued credit is linked to:
  - Verified batch ID
  - Recycler/project location
  - Proof-of-impact documentation
  - Blockchain hash (optional in V1, mandatory in V2)
- Public registry view will be available for buyers, partners, and regulators.

Pricing Guidelines:

- APRS does not fix credit prices. Prices are determined by market demand, traceability level, and buyer preferences.
- Platform fee for Autify Network may vary from 5% to 15% depending on value-added services (premium verification, storytelling, packaging, etc.)

Dispute Resolution:

- Disputes between recyclers and verifiers will be reviewed by the Autify Network Compliance Team
- Buyers may request audits or data validation on a case-by-case basis

Future Upgrades (V2.0)

- Third-party verifier accreditation system
- AI-based fraud detection engine
- Carbon-plastic hybrid credit bundling
- Mobile-first collector onboarding with vernacular UX
- Global scaling to Southeast Asia and Africa

Summary:

The Autify Plastic Recovery Standard (APRS) is designed to be:

- **Trustworthy**: Every credit backed by verifiable proof
- **Accessible**: Built for grassroots recyclers in India
- **Affordable**: No upfront fee, success-based pricing
- **Global**: Ready for ESG buyers, Web3 platforms, and climate-conscious corporates

By enabling fair, verified plastic credit issuance, APRS powers a new, inclusive ESG economy built on real impact.