SDG BLOCKCHAIN ACCELERATOR

Project Strategy & Sustainability

1. Introduction

Bangladesh is one of the most climate-vulnerable countries in the world. Rural communities and smallholder farmers are experiencing increasingly destructive climate shocks, flooding, salinity intrusion, crop loss, and they rely on local adaptation finance to stay afloat.

The core challenge is not just funding. It's trust.

In current systems, climate adaptation funds move through multiple intermediaries before reaching the final beneficiary. This creates delays, limited transparency, and opportunities for mismanagement. It also makes it harder for UNDP Bangladesh and the Government of Bangladesh to prove to donors that the money is reaching the right households, at the right time, with the intended impact.

The blockchain-enabled Community Resilience Fund (CRF) system directly addresses that challenge.

The solution combines:

- Decentralized Digital Identity (DID) for each beneficiary, tied to phone number and national ID data.
- Smart contracts to automate approval and enforcement of funding rules.
- Traceable disbursement flows to mobile wallets (e.g. bKash).
  Immutable audit trails that donors, program managers, and cooperatives can verify.

This Go-To-Market Strategy & Sustainability Plan explains how the CRF system will:

1. Enter the field (pilot rollout).
2. Gain institutional credibility.
3. Scale within Bangladesh.
4. Evolve into a nationally recognized model for locally led climate finance.

It is designed to be practical, fundable, and aligned with UNDP Bangladesh's existing LoGIC program, rather than a stand-alone startup-style product.

2. Strategic Approach

The strategic model is built for government alignment, donor trust, and local usability. It rests on three pillars:

2.1. Public–Private–Community Partnership (PPCP)

Instead of treating this as a purely technical deployment, the CRF system is structured as a shared governance model:

- Public side (UNDP Bangladesh, Government of Bangladesh):
  - Sets rules for eligibility.
  - Ensures alignment with national adaptation priorities.
  - Provides policy cover and institutional legitimacy.

- Private side (Cladfy):
  - Designs and maintains the blockchain layer: DID issuance, smart contract logic, on-chain hashing.
  - Builds and manages the admin dashboards and cooperative-facing tools.
  - Integrates with mobile financial services (MFS) channels for disbursement.

- Community side (local cooperatives):
  - Screens and nominates beneficiaries.
  - Reviews and approves loan/relief requests.
  - Tracks repayment and usage.
  - Reports local issues back into the system.

This PPCP model does three important things:

1. It reduces friction for rollout because cooperatives keep their role in beneficiary selection and repayment follow-up instead of being replaced.
2. It builds government comfort because the model is not “new money outside the system”; it is “the same fund, made auditable.”

3. It creates a path for institutional ownership, because from day one the government and cooperatives are inside the loop, not observers.

2.2. Donor-Backed Expansion Through Proof

The LoGIC program is already backed by multiple development partners (EU, Sweden, Denmark, UNCDF, UNDP). The CRF system strengthens this donor partnership by offering verifiable, real-time delivery data instead of after-the-fact reporting.

The GTM approach leverages that:

- **Step 1: Prove transparency and speed.**
  - Show that approved beneficiaries receive funds directly in their mobile wallet without layers of middlemen.
  - Show that each disbursement is traceable (hashed on-chain and linked to a verified identity).
  - Show that loan terms or grant terms are respected.

- **Step 2: Convert proof into expansion funding.**
  - Use pilot evidence (who was funded, how fast, what outcome) to secure additional donor financing to expand to more cooperatives and more districts.
  - Demonstrate that support reached women-led households, which is already a LoGIC strength (98% of beneficiaries are women).

This is not a "pitch deck" growth model. It's a development-grade growth model: prove in the field, unlock the next tranche with evidence.

2.3. White-Label Institutional Adoption

The CRF system is designed so that, over time, it can sit inside national systems, not outside them.

That means:

- The tool can be deployed under government or program branding (for example, "LoGIC Resilience Fund Portal" or similar).

- Cooperative dashboards and supervisor dashboards can use official visual identity.
- The blockchain layer remains under the hood, ensuring integrity and verifiability, but not forcing end users (beneficiaries or cooperative staff) to "learn crypto."

This "white-label for government" model:

- Speeds policy acceptance.
- Makes it easier for ministries to claim, own, and defend the model at national scale.
- Opens the door for direct budget integration in the future.

3. Revenue and Sustainability Model

A major requirement from UNDP Bangladesh is that the system must be able to sustain itself after the pilot. The plan blends grant incubation, cost-sharing, and new financing streams.

3.1. Pilot Funding

During the pilot, costs are covered through:

- LoGIC program resources.
- UNDP Bangladesh operational and coordination capacity.
- Cladfy technical development time.

Pilot coverage includes:

- Building the identity and disbursement flows.
- Integrating with mobile money providers to push funds directly to beneficiaries.
- Deploying the cooperative dashboard for approvals and repayment tracking.
- Field testing with ~1,000 beneficiaries across 2–10 cooperatives.

This makes the pilot deployable with no additional cost burden on communities and without requiring new government budget lines upfront.

3.2. Cooperative-Level Cost Sharing (Post-Pilot)

After the pilot proves value, the model shifts to light cost recovery for operations.

- A minimal service fee (for example, under 1% per transaction or per approved loan) is charged at the cooperative level.
- The fee covers:
    - Server/hosting infrastructure.
    - Mobile money API costs.
    - Ongoing maintenance of dashboards and smart contract logic.
- Beneficiaries are not charged. The cooperative absorbs this on behalf of its members as part of its governance and service model.

This is intentional. Cooperatives already manage fund circulation. We are not adding a new financial actor; we're upgrading their tooling.

3.3. Climate Finance and Carbon-Linked Funding

In the medium term, the CRF system will extend beyond "who received funds" to "what climate benefit did those funds produce."

Why this matters:

- Many of the supported adaptation activities (mangrove work, nature-based solutions, resilient agriculture, tree planting) generate measurable climate benefits.
- Those benefits can be monitored, logged, and later certified as emission reductions or resilience outcomes.

The system roadmap includes:

- Attaching climate outcome metadata to funded interventions.
- Recording verified resilience actions to an immutable log.

- Preparing structured evidence for future carbon credit monetization or climate finance contributions.

This unlocks a possible new revenue stream: external climate finance (including carbon-linked funding) can help pay for system upkeep, cooperative training, and expansion to new districts.

3.4. Government Adoption and Budget Integration

The long-term sustainability path is public institutionalization:

- The system is positioned as a "best-practice model" for locally led climate adaptation finance.
- Government agencies integrate it into national delivery mechanisms for adaptation funds and, over time, potentially social protection schemes.
- Once the tool is embedded into a mandated national program, operational funding can be drawn from government budgets, not only donor cycles.

This is critical to long-term resilience: it prevents the system from dying the moment a grant cycle ends.

4. Market Entry & Expansion Plan

The CRF system does not "go to market" like a traditional SaaS startup. Instead, it scales through staged deployment inside a real social protection / climate resilience ecosystem.

We structure rollout in three phases:

Phase 1: Pilot Deployment (0–6 months)

Scope:

- Deploy in 2–10 cooperatives under LoGIC.
- Onboard ~1,000 beneficiaries.
- Assign DIDs (digital identities) to beneficiaries using their national ID / phone number.

- Run the full flow:

    1. Beneficiary requests funds.
    2. Cooperative committee reviews and approves.
    3. Smart contract enforces the rules.
    4. Funds are pushed to the beneficiary's mobile wallet (e.g., bKash).
    5. Transaction details are hashed on-chain for transparency.

Goals for this phase:

- Prove that disbursement can be fast, traceable, and rules-based.
- Demonstrate that women beneficiaries can receive funds directly without gatekeepers.
- Build trust with UNDP Bangladesh and government actors through live evidence, not theory.

Phase 2: Structured Scale-Up (6–18 months)

Scope:

- Extend rollout across all LoGIC districts.
- Onboard thousands of new beneficiaries and standardize cooperative workflows.
- Localize the interface fully in Bangla and adapt training for low-digital-literacy environments.
- Integrate with the existing Cooperative Management System and ATM system so the tool sits inside known operational workflows.
- Introduce stronger cooperative-level governance:
    - Digitized committee approvals.
    - Recorded reasons for rejection/approval.
    - Early alerts for repayment risk.

Goals for this phase:

- Normalize usage so that cooperatives see the system as "how funds move," not "a pilot project."

- Generate district-level dashboards and summary reporting so donors and government can compare performance across regions.

Phase 3: Policy Model and Regional Replication (18–36 months)

Scope:

- Position the system as a national reference model for climate adaptation fund delivery.
- Offer a "white-label" deployment for other programs (for example, social protection schemes or livelihood recovery funds).
- Begin conversations with other countries in the region that face similar resilience financing challenges.

Goals for this phase:

- Achieve policy recognition in Bangladesh (integration into climate finance delivery frameworks).
- Demonstrate replicability to other UNDP country offices in South Asia or similar contexts.
- Layer in climate impact tracking to make the system compatible with emerging adaptation finance and carbon-linked instruments.

5. Positioning and Messaging

The CRF system is not selling "blockchain." It is selling **trust, speed, dignity, and proof**.

Core message:

> "Direct, auditable climate finance for the people most affected, and the evidence to prove it."

We position the system to different audiences in language that matches their priorities:

- **For government and policymakers:**
  "A transparent and efficient way to deliver climate adaptation funds to vulnerable communities, with full auditability and no loss of control."
- **For donors:**
  "Real-time visibility into who received what, when, and for which adaptation purpose, with gender and inclusion data, backed by immutable records."
- **For cooperatives:**
  "A tool that protects you. Decisions are recorded, approvals are visible, and you can prove you managed funds fairly."
- **For beneficiaries:**
  "Money comes directly to you, quickly, to your phone, without needing to chase intermediaries."

Tone of voice:

- Calm, accountable, and human.
- Evidence-led instead of hype-led.
- Inclusive, with emphasis on women, marginalized households, and climate-vulnerable livelihoods.

We keep terminology simple in the field. End users never have to understand "blockchain," "smart contract," or "on-chain hashing." They only need to understand: "You request, it's reviewed, and when approved you get the money in your wallet."

6. Key Performance Indicators (KPIs)

To prove success to UNDP Bangladesh, the Government of Bangladesh, cooperatives, and donors, we track performance across inclusion, transparency, reliability and scalability.

Inclusion & Access

- % of funds disbursed directly to women beneficiaries.
- of beneficiaries onboarded with digital identities (DIDs).
- of first-time digital financial accounts used in disbursement.

Transparency & Accountability

- % of disbursements logged with on-chain hashes.
- Average time from approval to disbursement.
- Reconciliation accuracy between cooperative dashboard and blockchain log.

Operational Performance

- of cooperatives actively using the system for loan/relief approvals.
- of loan/relief requests processed end-to-end.
- Repayment adherence rate (for climate adaptation loans).

Institutional Uptake

- of districts officially using the system.
- of policy references or MoUs supporting expansion.
- Government agreement to integrate into national or regional climate finance delivery mechanisms.

Climate Finance Readiness (medium term)

- of funded adaptation projects that can be linked to measurable climate resilience outcomes.
- Volume of funding flowing through the system, total.
- Ability to generate reporting aligned with SDG 1 (no poverty), SDG 5 (gender equality), SDG 8 (financial inclusion and livelihoods).

These KPIs are not just internal. They're designed to speak directly to what donors, auditors, ministries, and international climate finance platforms want to see.

7. Governance and Risk Management

Because the platform is intended to be adopted by public institutions and cooperatives, risk management is part of the GTM story, not an afterthought.

Key risks and mitigations:

1. **Data mismatch between blockchain records and cooperative dashboards**
    - Mitigation: Weekly reconciliation scripts; automated alerts if data diverges.
2. **Low committee participation in governance**
    - Mitigation: Training, clarity of roles, and incentives for committee attendance and digital approvals.
3. **Network downtime or infrastructure instability**
    - Mitigation: Fallback offline/record-then-sync modes and manual exception handling so that cooperative operations do not pause even if connectivity drops.
4. **Loan default / low repayment discipline**
    - Mitigation: Staged disbursement logic in smart contracts + risk-informed eligibility scoring.
5. **Regulatory comfort**
    - Mitigation: The system is designed to work with existing mobile money frameworks (e.g. bKash), not to replace them. No crypto exposure is required for end users.

By presenting these mitigation measures transparently, we support policy buy-in and reduce blockers in the “government acceptance” phase.

8. Long-Term Ownership and Institutionalization

The GTM plan is intentionally designed so that control shifts locally over time.

Phase 1 – Pilot / Early Stage

- The system is co-managed by UNDP Bangladesh's LoGIC team and Cladfy.
- Technical updates, fixes, and feature expansion are handled centrally.
- Cooperatives are onboarded and trained.

Phase 2 – Growth / Post-Pilot (2–3 year window)

- Day-to-day operation moves toward the LoGIC project team and national partners.
- Cooperative leaders increasingly manage approvals and repayments inside the system without external facilitation.
- Integration with existing Cooperative Management Systems and ATM systems reduces parallel workflows.

Phase 3 – Institutionalization (Beyond 3 years)

- The Government of Bangladesh is encouraged to adopt the model as part of its climate adaptation finance architecture.
- A public–cooperative model is introduced, where maintenance and governance are jointly owned by government, cooperatives, and (if relevant) financial service providers.
- The system becomes a recognized mechanism for delivering climate resilience funds to frontline communities, not a pilot.

This staged shift avoids a common failure mode in development tech: "great prototype that dies after the funding round."
Here, the endpoint is national-level ownership.

9. Conclusion

The blockchain-enabled CRF system is not just software. It's financial infrastructure for climate resilience.

It:

- Gets money directly into the hands of climate-affected households, especially women.
- Documents every step for donors, auditors, and national authorities.
- Gives cooperatives tools to govern fairly and prove they governed fairly.
- Creates a pathway for Bangladesh to manage climate adaptation finance with transparency, speed, and dignity at scale.

This Go-To-Market and Sustainability Plan is built around credibility, policy alignment, and lived usability.
Pilot first. Prove impact. Scale nationally.
And in doing so, position Bangladesh as a leader in transparent, locally led climate finance, one that other countries can study, adapt, and replicate.