

Shurokkha

AI-Powered Transparent Donation Platform



AlphaVerse Team, BUET CSE'20

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|--------------------------------|-----------------------|
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SOLVIO AI Hackathon 2025

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BUET CSE Undergraduate Team

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Backend Dev & Fintech Specialist

Experience: Team Project, Skill: Nextjs

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UI-UX & Market Specialist

Experience: Team Project, Skill: MERN

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Team Verification

ID Documents: Google Drive Link ([Click Here](#))

The Problem: Bangladesh's Humanitarian Aid Crisis

1. Zero Transparency

- Donors cannot track donations
- No visibility into fund allocation
- 60% donors hesitate to give

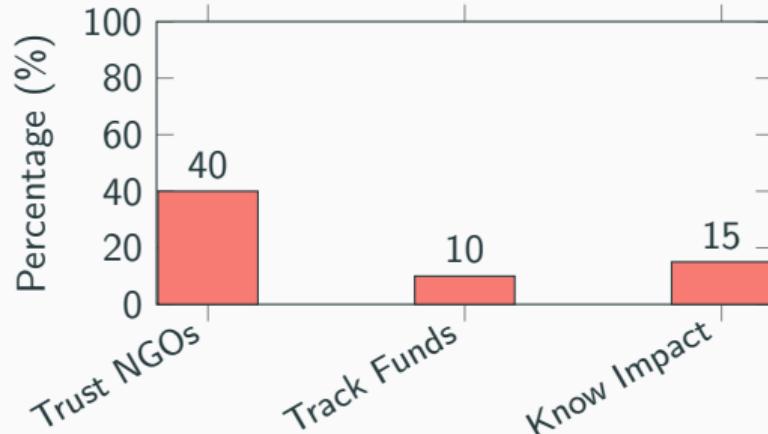
2. Rampant Fraud

- Up to 30% of aid diverted
- Fake NGOs and ghost beneficiaries
- Duplicate applications

3. Inefficient Systems

- 45-day average delivery time
- Manual verification processes
- Poor coordination

Impact of Trust Deficit:



Real Consequences:

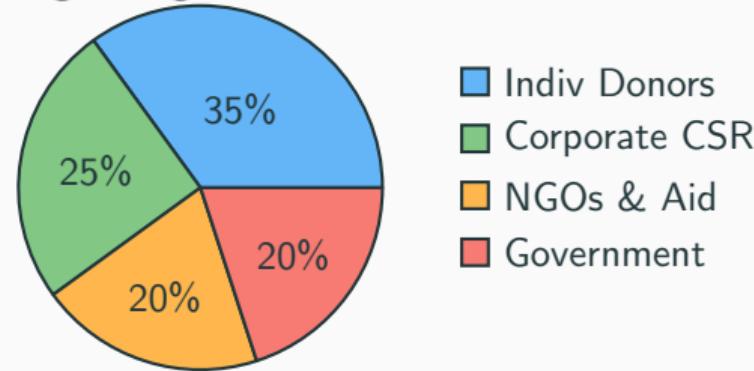
- Billions in lost donations
- Reduced disaster response
- Growing public mistrust
- Victims suffer most

Market Opportunity: Massive Potential

Bangladesh Humanitarian Aid Market:

- Tk. 10,000+ crore annual humanitarian aid
- 40+ disasters annually (floods, cyclones, fires)
- 170M population with 20M+ disaster-affected
- 1,000+ active NGOs seeking technology
- \$21B remittances from diaspora wanting transparency

Target Segments:



Digital Readiness:

- 120M+ mobile users
- 60M+ mobile financial service users
- 80M+ internet users
- Government Digital Bangladesh initiative

Market Potential

Year 3 Target: Tk. 500 crore donations

Platform revenue: Tk. 12.5 crore (2.5%)

Triple-Layer AI Verification

End-to-end transparent donation ecosystem

Layer 1

Crisis Validation

- Satellite imagery
- News scraping
- Social media
- Weather data

Layer 2

Provider Auth

- Trust scores (0-100)
- Background checks
- Performance history
- License verification

Layer 3

Beneficiary Verify

- NID database check
- Face matching (95%+)
- GPS validation
- SMS confirmation

Result: <1% fraud rate | 5–7 day delivery | 100% transparency

AI Integration: Complete Suite

1. Crisis Detection & Validation

- **Models:** U-Net CNN + BERT NLP
- Satellite image analysis
- News scraping (50+ sources)
- Social media sentiment
- **Accuracy:** 92%+ crisis detection

2. Document Verification

- **Models:** Tesseract OCR + DeepFace
- NID govt. database check
- Deepfake detection (95%+ accuracy)
- Metadata tampering detection

3. Fraud Pattern Detection

- **Models:** Isolation Forest + GNN
- Duplicate beneficiary detection
- Cost outlier flagging
- **Accuracy:** 94% fraud prevention

4. Smart Matching

- **Model:** XGBoost + Collaborative Filtering
- Preference alignment
- Provider capacity optimization
- Urgency-based prioritization
- **Satisfaction:** 91%

AI Benefits

25x faster verification | 99%+ fraud prevention | Real-time detection

Product Demo: Crisis & Donor Experience



Trending Severity 85

Community

Admin User · 5/20/2024

Satkhira Cyclone Recovery
Satkhira, Khulna

Funding Progress  58%
฿18,50L raised of ฿32,00L

32,000 Affected
234 Upvotes
8 Downvotes

[View Details](#) [Donate](#)



Severity 70

Medical Emergency Response - Cancer Ward
Dhaka, Dhaka

Funding Progress  61%
฿9,20L raised of ฿15,00L

250 Affected
189 Upvotes
3 Downvotes

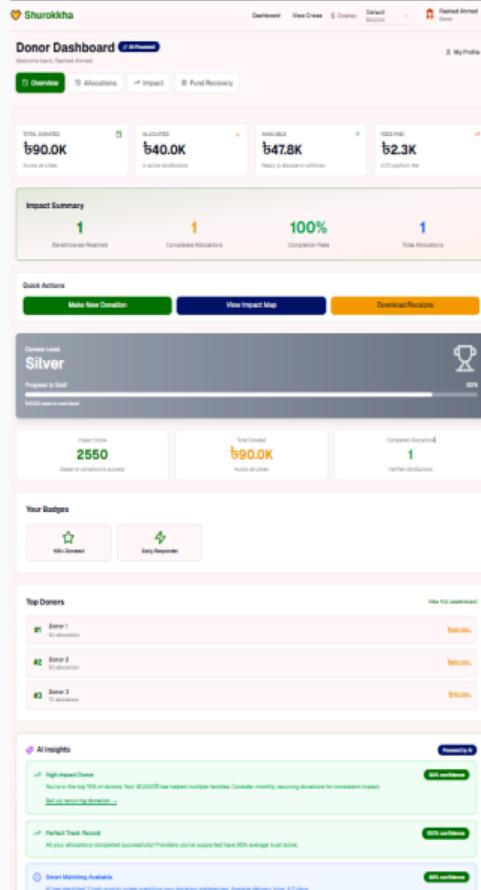
[View Details](#) [Donate](#)

Crisis Dashboard (Public):

- AI-detected crises with severity
- Real-time funding progress
- Satellite imagery integration

Donor Dashboard:

- Complete wallet tracking
- GPS impact map
- Proof of delivery with photos



Shurookha

Donor Dashboard [Dashboard](#) [View Crisis](#) [S. Donor](#) [Default Message](#) [Logout](#)

Impact Summary
1 Beneficiaries Reached, 1 Completed Allocation, 100% Completion Rate, 1 Total Allocation

Quick Actions
[Make New Donation](#) [View Impact Map](#) [Download Receipts](#)

Current Level: Silver
Progress to Gold
Total Donated: ฿90.0K (Raised of 100K)

Your Badges


Top Donors
Donor 1, Donor 2, Donor 3

AI Insights
High Impact Donor, Perfect Track Record, Smart Delivery Analytics

Product Demo: Provider & Beneficiary Experience

The Provider Dashboard interface for Shurokha. At the top, there's a header with the Shurokha logo, user information (BRIAC Khata), and navigation links (Dashboard, View Cases, Display, Default, Logout). Below the header, a banner displays "Total Available Matching Pool \$55.0K" and "0 Donations Available | 0 Compatible". The main area has tabs for Overview, Monitoring Panel (selected), Submit Application, and Donations. A section titled "Available Beneficiaries (5)" shows five cards for beneficiaries: Amna Begum, Firdz Ahmed, Habibullah Mai, Jahan Uddin, and Rehema Khatun, each with a profile picture, name, age, ID, location, and a "Match" button. Below this is a section for "Available Donation Matches" with three cards: Winter Poverty Crisis - Vulnerable Families (\$10.0K), Rashidah Drought - Farmer Livelihood Crisis (\$10.0K), and Back-to-School Fund for Underprivileged (\$25.0K), each with a "View Details" button.

Provider Interface:

- Trust score (0–100)
- Beneficiary management
- GPS distribution workflow

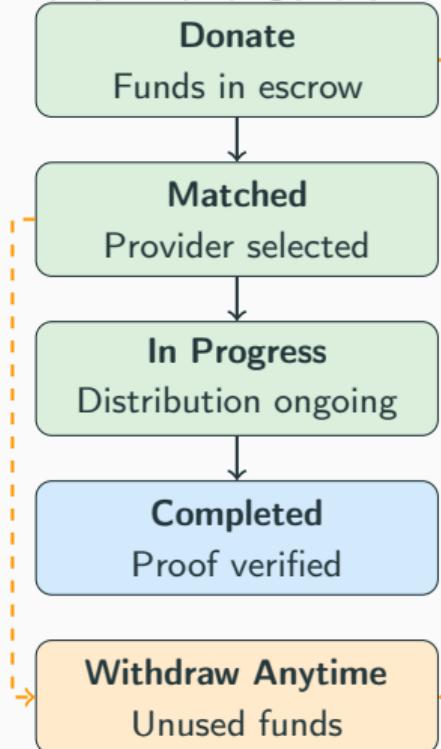
The Beneficiary Portal interface for Shurokha. At the top, there's a header with the Shurokha logo, user information (Amna Begum), and navigation links (Dashboard, View Cases, Display, Default, Logout). Below the header, a banner displays "Total Applications 4 | 1 Completed | 2 In Progress | Total Received \$20.000". The main area has tabs for Overview, Browse Providers, New Application, Track Application, and Privacy Controls. A section titled "Current Application (2025)" shows details for "Jahan Uddin" (Age: 40, ID: 12345, Location: Dhaka) with an amount requested of \$10.000 and a "Verify Status" button. Below this is the "Application Timeline" which tracks the progress of the application from submission to distribution. The timeline includes steps: Application Submitted (Status: Pending), Verification Complete (Status: Pending), Cross-Proof Uploaded (Status: Pending), Matched with Provider (Status: Pending), Distribution in Progress (Status: Pending), and And Distributed (Status: Pending). A "Suggested Providers Based on Previous History" section lists "Dhaka Medical Aid Foundation" and "BRIAC Khata".

Beneficiary Interface:

- Easy registration process
- Privacy controls (3 levels)
- SMS-based confirmation
- Direct feedback system

Platform Features: Brief Overview

Donor: Fund Control



Provider Workflow:

1. Registration & verification
2. View available donations
3. Submit beneficiary list
4. AI screening
5. 50% fund release
6. GPS-tagged distribution
7. AI validates delivery
8. Remaining 50% released
9. Feedback & rating

Trust Score (0–100):

30% Completion + 25% Rating
+20% Speed + 15% Zero Fraud
+10% Longevity

Beneficiary Registration:

- Multi-step profile creation
- NID verification (AI + manual)
- Document upload
- Phone verification (SMS)

Privacy Controls:

- 3 levels of data sharing
- Anonymous donations
- Profile visibility control
- Data protection compliance

Protection

No fees | Privacy | Fraud reporting

Unique Value Proposition

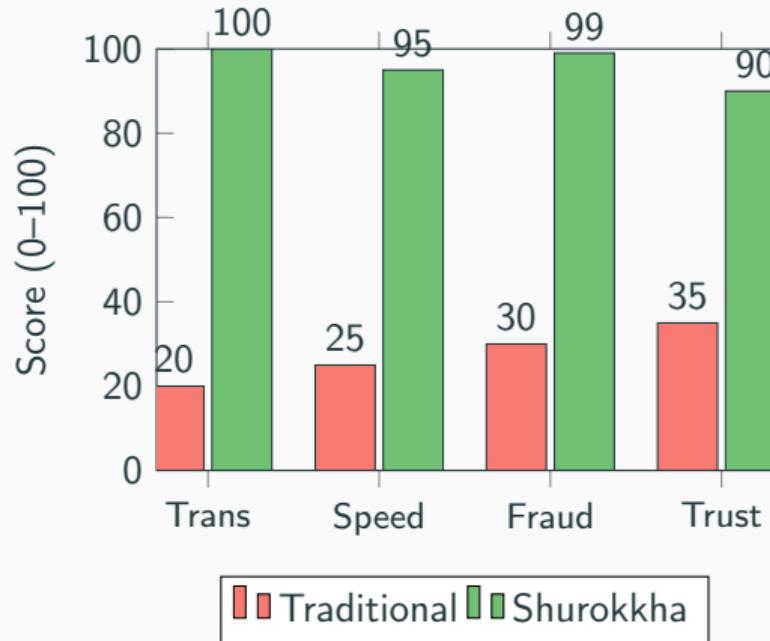
Industry-First Features:

- Only platform with govt. NID integration
- Real-time satellite crisis detection
- Refundable unused donations
- 100% transparency with GPS proof
- 5–7 day delivery vs. 45-day average
- <1% fraud rate vs. 20–30% traditional

Technology Differentiators:

- AI models (CNN, BERT, XGBoost, GNN)
- Deepfake detection & liveness checks
- Graph neural networks for fraud rings
- Next.js 16 with React Server Components

Competitive Comparison:



9x faster | 30x lower fraud | 100% traceability

Business Model & Revenue Strategy

Revenue Streams:

1. Transaction Fees (75%)

2.5% per donation (transparent), Covers payment gateway, operations, AI

2. Corporate CSR (15%)

Custom matching programs, Tk. 5–50 lakh per company

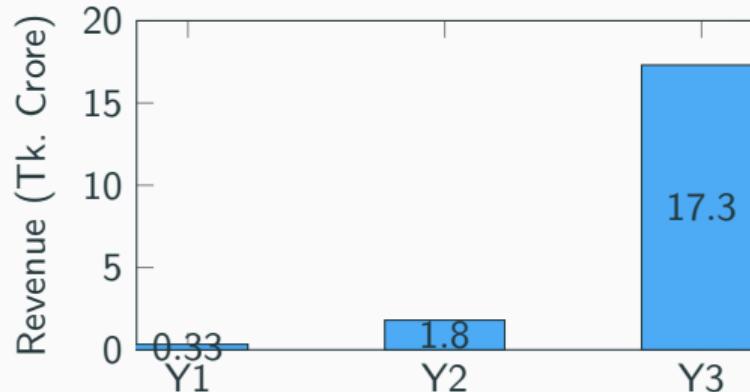
3. API Licensing (7%)

Banks: bKash, Nagad, Rocket, Telecom & Government systems

4. Premium Features (3%)

Priority matching, Advanced analytics

3-Year Revenue Projections:



Unit Economics:

- Avg donation: Tk. 5,000
- Platform fee: Tk. 125 (2.5%)
- Cost per transaction: Tk. 40

Phased National Expansion

Phase 1: Foundation (Months 1-6)

- 50 NGO partnerships
- 5 disaster-prone districts
- 10K donors
- Tk. 10 crore distributed

Phase 2: Scale (Months 7-12)

- All 64 districts
- 500+ providers
- Mobile app launch
- Tk. 50 crore distributed

Phase 3: Ecosystem (Year 2+)

- Govt. integration
- International support
- Regional expansion
- Tk. 500 crore distributed

Customer Acquisition:

- **Digital (40%)**: Facebook, Instagram, YouTube, SEO/SEM
- **PR & Media (25%)**: Disaster coverage, tech innovation press
- **Campus Ambassadors (20%)**: 50+ universities, student networks
- **Partnerships (15%)**: bKash/Nagad, telecom, bank CSR programs

Financial Projections & Milestones

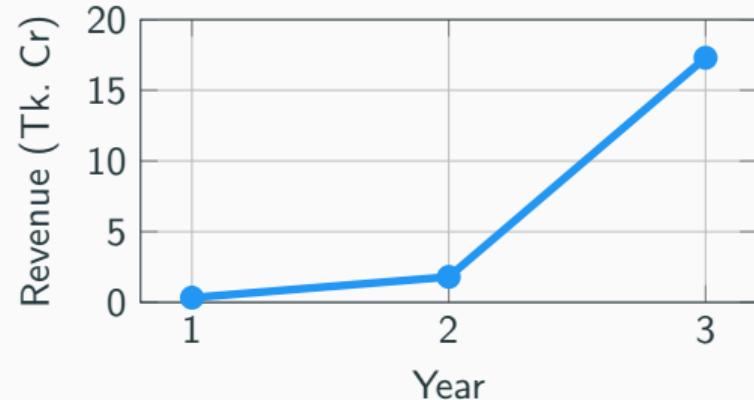
3-Year Financial Overview:

Metric (Crore)	Y1	Y2	Y3
Donations	10	100	500
Revenue	0.33	1.8	17.3
Costs	0.5	1.2	8.5
Net Profit	-0.17	0.6	8.8
Donors (K)	0.5	5	10
Providers	20	100	200+
Beneficiaries (K)	5	50	100+

Key Milestones:

- **Y1:** MVP launch, 20 NGOs, pilot 3 crises
- **Y2:** Mobile apps, govt. partnerships
- **Y3:** National coverage, regional expansion

Revenue Growth Trajectory:



Performance vs Traditional:

- **9x faster** delivery (5 vs 45 days)
- **30x lower** fraud (<1% vs 30%)
- **85%+** donor retention rate
- **100%** traceability

Next Steps & Our Ask

What We Need?

1. Seed Funding: Tk. 50 Lakh

- Complete MVP development
- AI infrastructure setup
- Team expansion & operations

2. Technical Resources:

- AWS/Cloud credits
- Satellite API access (ESA/NASA)
- Payment gateway integration

3. Strategic Partnerships:

- NGOs (BRAC, ASA, Grameen)
- Government agencies (Disaster Mgmt.)
- Financial partners (bKash, Nagad)

6–12 Month Roadmap:

M1–2: Finalize MVP

- AI modules
- Mobile PWA

M3–4: Pilot Launch

- First crisis
- 20 NGOs

M5–6: Integrations

- Payments
- Satellite feeds

M7–9: Scale

- 5 districts
- 500 donors

M10–12: Milestone

- 1K donors
- 10K+ beneficiaries

“Every Taka Reaches Its True Destination”

Building trust and transparency in Bangladesh's humanitarian sector

Social Impact Goals:

- Restore public trust in humanitarian aid
- Reduce fraud by 95%+
- Cut delivery time from 45 to 5–7 days
- Reach 100K+ beneficiaries by Year 3

Long-Term Vision:

- Become Bangladesh's trusted digital aid platform
- Set global standards for transparent giving
- Expand to regional markets (South Asia)

Donate with Confidence. Track with Precision. Impact with Certainty.

Join Us in Transforming Humanitarian Aid

Shurokkha

AI-Powered Transparent Donation Platform



shurokkha.vercel.app

Contact Team AlphaVerse:

- alphaverse@shurokkha.example.com
- AlphaVerse-BUET/Shurokkha
- YouTube/Prototype-Presentation

Thank You!