Uwezo Token

Empowering Girls in Education
Through Blockchain Technology

Objectives

Objectives of the Uwezo Token project

Objective 01

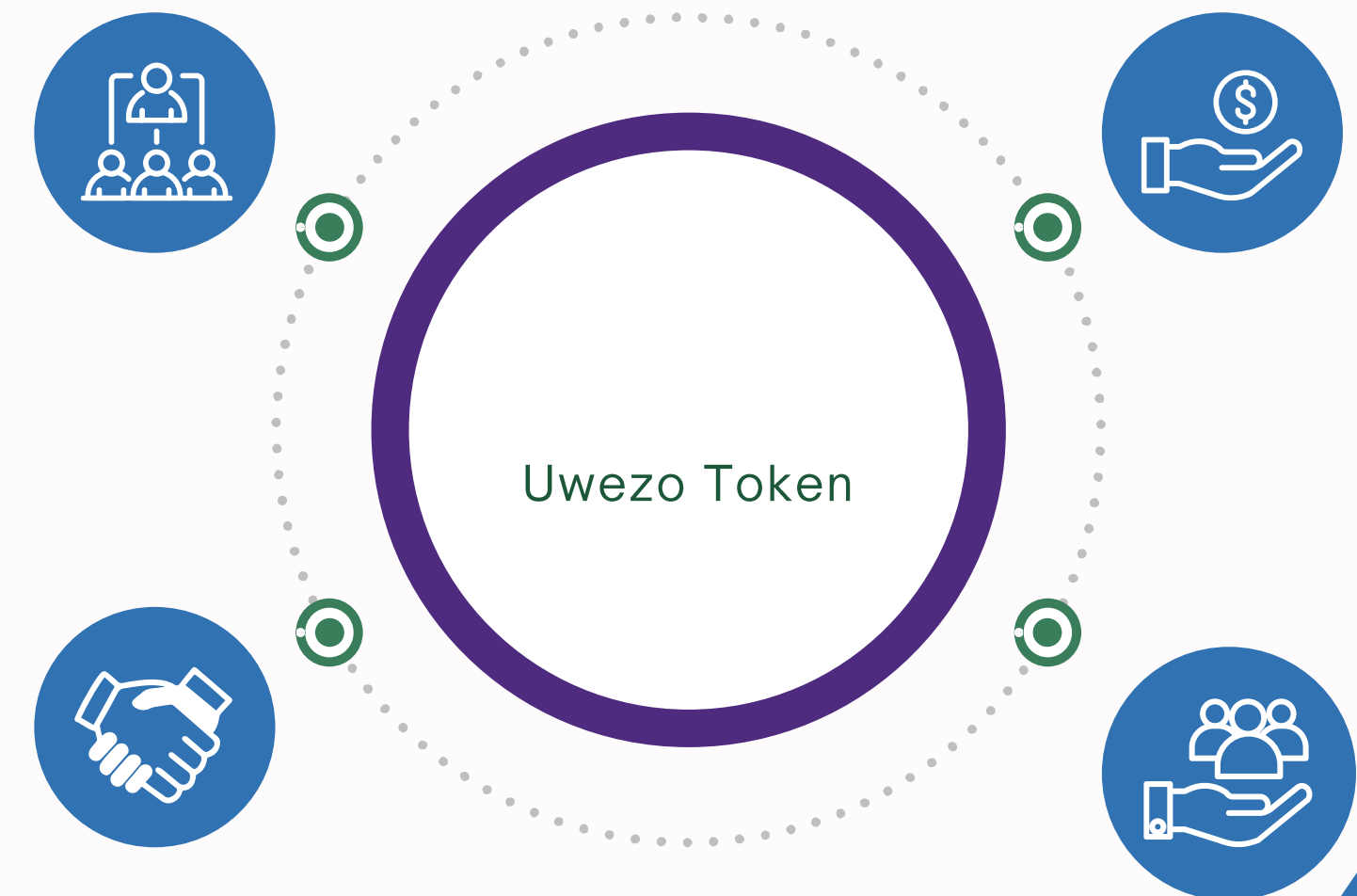Combat Period Poverty and Promote School Attendance

Objective 02

Increase Access to SRHR Education and Services

Objective 03

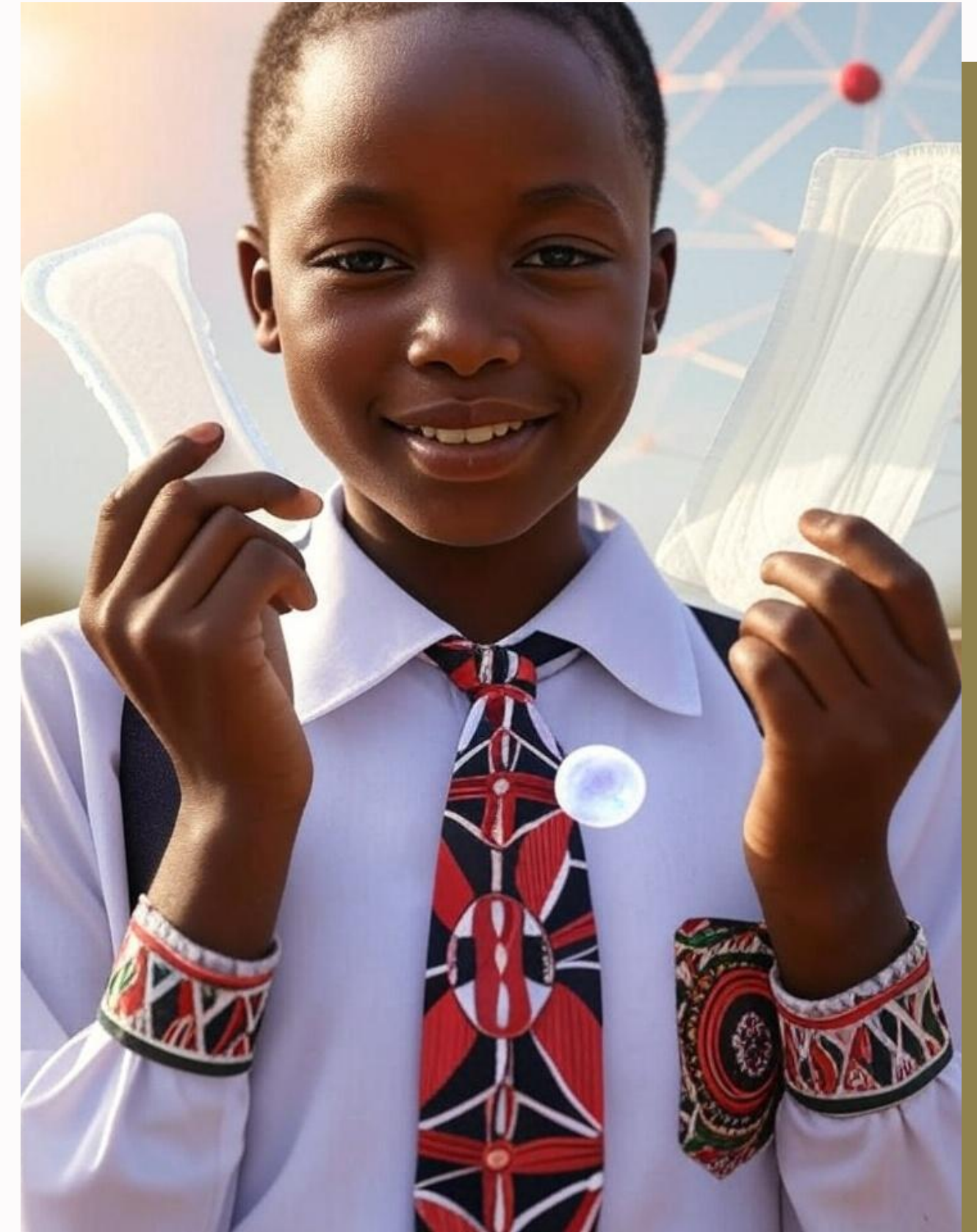Leverage Technology for Transparent and Equitable Resource Distribution

Objective 04

Build a Scalable, Data-Driven Model for Impact and Donor Confidence

Uwezo Token

Content

Executive Summary

Uwezo Token is an innovative digital voucher system developed by the Uwezo Link Initiative (under the Kenya Poverty Action) to address period poverty, increase school attendance, and provide SRHR education to underserved youth in rural Kenya.

This blockchain-powered solution uses attendance-based incentives and QR-based token redemptions to empower girls aged 10–19 with:

- Monthly Rewards for Attendance: Girls earn digital tokens by attending school consistently.
- Access to Essential SRHR Supplies: Tokens are redeemed at vetted kiosks and clinics for sanitary pads and other health resources—no smartphone required.

By combining technology, accountability, and community engagement, Uwezo Token creates a sustainable, transparent, and scalable model for keeping girls in school and improving reproductive health outcomes across Kenya.

Focus Areas

1. Barriers to Education & Health

Rural girls, especially girls from distressed families, single mothers, and ASAL (Arid and Semi-Arid Lands) communities, face deep-rooted challenges in accessing education and basic health services.

2. Period Poverty & SRHR Gaps

Over 65% of girls in Kenya cannot afford sanitary pads. As a result, many miss school monthly. Additionally, limited access to sexual and reproductive health and rights (SRHR) education leaves both girls and boys uninformed about their health and rights.

3. Digital Divide

Fewer than 1 in 5 students in rural Kenya own a mobile phone, making conventional tech solutions impractical and excluding the most vulnerable.

Uwezo Token Solution

Uwezo Token directly addresses these issues by:

- **Incentivizing School Attendance:** Girls earn digital tokens based on consistent school attendance, encouraging them to stay in class.
- **Delivering SRHR Education:** Interactive workshops during school holidays equip both girls and boys with critical sexual and reproductive health knowledge.
- **Ensuring Access to Essential Products:** Tokens are redeemed for sanitary pads and other health items at vetted kiosks using a secure, phone-free QR and PIN system.
- **Focusing on the Most Vulnerable:** Designed for adolescent girls from extremely poor households, single-parent families, and remote ASAL communities.
- **Promoting Full Transparency & Accountability:** Every token is backed by donor funds and burned upon redemption, enabling real-time tracking of impact and eliminating misuse.

Product Procurement & Vendor Supply

Bulk Sourcing for Impact: Uwezo Token sources sanitary pads in bulk at wholesale rates through trusted manufacturers and NGO partners. Products are then distributed free of charge to over 150 vetted local vendors and clinics, who serve strictly as distribution agents—not retailers.

Vendor Incentives & Safeguards

- **Commission-Based Model:** Vendors earn KSh 20 (equivalent to 2 tokens) per pad pack distributed, covering time, logistics, and service delivery.
- **Zero Inventory Risk:** All inventory is pre-supplied, meaning vendors face no upfront costs and are insulated from price fluctuations.
- **Quality and Integrity Controls:** Only pre-approved, whitelisted vendors can participate, ensuring reliability and accountability in product delivery.

Fraud Prevention

Report Tracking: Vendors generate a monthly report on distribution of products which are analyzed for anomalies.

Monthly Reconciliation: App logs vs. reports are audited; anomalies trigger vendor review by the Community Panel.

Smart Contract Limits: Vendor wallets can't redeem beyond their verified student interactions.

Vendor Whitelisting: Only pre-approved vendors can accept tokens.

Token Issuance via Attendance

Teacher Portal

Weekly attendance is logged by teachers through a simple online form or mobile link. Reward Rules:

- Girls can earn up to 40 tokens per month through attendance (sufficient for 2 pad packs at 20 tokens each).
- When they attend classes for around 15 or more days in a month, they get the full reimbursement (40 tokens), for attendance which falls less than 15 days they get half the number of tokens which is 20 tokens (1 packet).

Holiday Allowance & Workshop Bonuses

Students earn 5 bonus tokens for attending each community SRHR workshop, up to two workshops a month (max 10 bonus tokens).

- During school long breaks/holidays, every registered student in the program receives a base of 20 tokens/month as a reward for also being an active student for the previous school term.

Token Redemption Process

1

Student ID Card: Each student carries an ID with embedded QR code and 4-digit PIN that they should always remember which is linked to their custodial wallet.

2

Vendor App: The agent scans the QR and the student enters the ID+PIN on an Android tablet/PoS app to display the student's token balance.

3

Select Product: Student chooses item eg, packet of pads = 20 tokens.

4

Smart Contract Split: On redemption, 15 tokens → procurement pool (pads), 2 tokens → vendor commission, 3 tokens → CBO operations.

5

Token Burn: All 20 tokens are returned to the treasury and burned to prevent reuse.

Monthly Token Cap

Enforced by the smart contract so no student holds more than 40 attendance tokens plus up to 10 workshop attendance tokens.

Usage Rules

Adolescent girls can only redeemed earned tokens for sanitary pads in partner kiosks

Rollover limit

Unused tokens roll over up to the next month; excess tokens are forfeited.

Key Words to Understand

Blockchain

A decentralized digital ledger where transactions are recorded in unchangeable blocks.

Smart Contract

A self-executing program on the blockchain that automatically enforces agreed rules (e.g., token splits on redemption).

Custodial Wallet

A blockchain wallet managed by the CBO on behalf of students; users log in with an ID & PIN instead of private keys.

Minting

The process of creating new tokens on the blockchain, usually tied to a real-world deposit (e.g., Ksh funds).

Pegging

Fixing a token's value to a real-world asset or currency (e.g., 1 UWE = Ksh 10).

Issuance Pool

An on-chain address holding newly minted tokens until they are distributed to students.

Redemption & Burn

When users spend tokens, they are sent back to a "burn" address or locked forever, reducing total supply to match distributed goods.

QR Code

A scannable barcode linked to a vendor's wallet address; students scan it to send tokens for payment.

Key Words to Understand

Kiosk

A local shop or clinic equipped to distribute products in exchange for tokens, using a tablet or PoS terminal with our Vendor App.

ERC-20 Token

A common standard for fungible tokens on EVM-compatible blockchains, ensuring compatibility across wallets and exchanges.
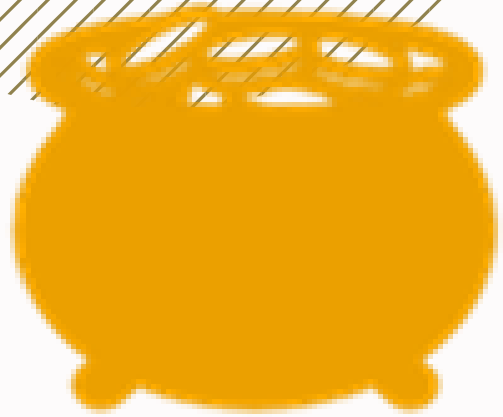
Celo

A lightweight, mobile-first blockchain designed for low fees and easy integration with SMS/USSD—ideal for rural deployments.

USSD

A mobile protocol (e.g., *123/#) that allows balance checks and transactions on basic feature phones, requiring no internet.

Token Contract

Treasury Flows

To host Uwezo Token (UWE), we will use
 Celo: Mobile-first, low transaction fees built-in support for stable-coins, strong African developer community, and seamless USSD and SMS integration for non-smartphone users.

•Token Name
 Uwezo Token (UWE), an ERC-20 standard.

Treasury Wallet: Central on-chain address controlled by Uwezo Link Foundation holds all UWE tokens and matched stable-coin reserves.

Donation
When a donor contributes Ksh 200,000 for example, the CBO:
 • Receives Ksh 200,000 in its bank or stable-coin account.
 • Calls mint(200,000 ÷ 10) on the smart contract, creating 20,000 UWE tokens into the Issuance Pool.
 • Backing: Each UWE token is fully backed by Ksh 10 in reserve. For 20,000 tokens, a Ksh 200,000 reserve is held, ensuring 100% collateralization and transparent donor tracking.

NOTE: The above example will be able to support 400 schoolgirls in a month.

Wallets, Student IDs and Notifications

Kiosk

Each student has an on-chain wallet managed by Uwezo Link Foundation. Wallets are linked to a unique ID and 4-digit PIN; students do not need private key management.

ERC-20 Token

Each kiosk/clinic has its own wallet address embedded in a QR code. Vendors can cash out commission tokens via a built-in swap or receive direct Ksh reimbursements.

Celo

On redemption, guardians receive SMS balance updates via integrated SMS gateway. USSD Fallback - 123ID*PIN/# returns balance for students without smartphones.

Vendor App and QR Code

Vendor App - Android tablet or PoS; scan ID or QR Codes then the student enters a PIN to access balance and redeem.

Tokenomics Table

Category	Allocation %	Purpose	Mechanism
Treasury	100% (at mint)	Holds all donor-matched tokens 1:1 with fiat	Fully liquid treasury wallet
Procurement Pool	75% of redemption	Pays manufacturers/suppliers (e.g., pads)	15 UWE burned, Ksh 150 paid
Vendor Commission	10% of redemption	Pay vendor for delivery/access point service	2 UWE burned, Ksh 20 paid
CBO/Admin Support	15% of redemption	Covers education, program ops, and monitoring	3 UWE burned, Ksh 30 paid

THANK YOU

📞 +44 7398 590409

✉ sharly.moraa@uwezolinkinitiative.org
tevin@uwezolinkinitiative.org

🌐 www.uwezolinkinitiative.org

📍 Wu Yi Plaza, Galana Road,
Nairobi, Kenya