SDG BLOCKCHAIN ACCELERATOR

Impact Measurement Framework – Genius Tags

1. Project Information

- **Project Name:** ClimateAid

- **Challenge & UNDP Office:** Malawi

- **Document Version:** 1

2. SDG Alignment

Direct SDGs from Roadmap:

- *SDG 1.3.1 – Proportion of population covered by social protection systems (focus on vulnerable groups: children, elderly, people with disabilities, orphan-headed households).*

- *SDG 2.1.2 – Prevalence of moderate or severe food insecurity in the population.*

- *SDG 16.6.2 – Proportion of population satisfied with their last experience of public services.*

Additional relevant SDGs (suggested):

- *SDG 9.C – Access to ICT: leveraging digital platforms for inclusion.*

- *SDG 13.1 – Strengthen resilience and adaptive capacity to climate-related hazards and disasters.*

3. Key Performance Indicators (KPIs)

KPI	Measurement Method	Target / Threshold	Notes
Number of beneficiaries registered	KoboToolbox entries + Genius Aid dashboard logs	≥1,000 households in pilot districts	Aligns with sprint goal
Deduplication accuracy (system performance)	On-chain verification logs compared to ground-truth	≥95% accuracy	Accuracy of detecting true duplicates
Duplicate rate detected (baseline problem)	Partner datasets analyzed before pilot	Baseline: **2.7%** (previous projects)	Measures prevalence of duplication
Reduction in duplicate records	Compare NGO/DoDMA lists before & after	≥50% reduction	Proxy for improved efficiency
Active humanitarian partners onboarded	Signed MoUs, dashboard user accounts	≥3 (DoDMA + 2 NGOs)	Minimum threshold for pilot

Complaints / feedback entries logged	Dashboard reports + surveys	≥200 logged entries	Proxy for inclusion & accountability
Community trust / satisfaction	Household/community surveys	≥70% of respondents report improved transparency	Aligns with SDG 16.6.2
Blockchain transactions processed successfully	On-chain logs (Cardano / Genius Chain)	≥90% success rate	Technical KPI

N.B Will add disaggregated KPIs (female-headed households, elderly, disabled) to strengthen SDG 1.3.1 alignment.

4. Tracking Methods

On-chain Metrics:

- *Deduplication hashes stored on Genius Chain (anchored to Cardano).*

- *Transaction success rates monitored via cardano-cli or Ogmios.*

- *QR/NFC-based aid distributions logged to blockchain.*

Off-chain Metrics:

- *KoboToolbox for household registration.*

- *Genius Aid dashboard for NGO uploads, distributions, complaints, and partner activity.*

- *Household/community surveys for satisfaction, trust, and food insecurity.*

- *MoUs and stakeholder engagement records for partner tracking.*

Cross-validation: *Weekly reconciliation between on-chain logs and dashboard records.*

5. Baseline vs Projected Outcomes

Metric	Baseline (from previous projects / Malawi context)	Projected Outcome (Pilot)
Beneficiaries registered	0 in Malawi pilot	≥1,000
Deduplication accuracy (system performance)	N/A (new system for Malawi)	≥95%

Duplicate rate detected in lists	**2.7%** across previous projects	≥50% reduction in Malawi partner datasets
Active partners onboarded	0 in Malawi	≥3 (DoDMA + 2 NGOs)
Community satisfaction with aid distribution	Low trust, exclusion reported (qualitative evidence)	≥70% report improved transparency & fairness
Complaints / feedback channels	Informal / not digitized	≥200 entries logged
Blockchain transaction success	N/A	≥90% success rate

6. Monitoring & Reporting Plan

🎬 **Frequency:**
- Sprint phase: Weekly check-ins.
- Pilot phase: Quarterly reporting to UNDP and partners.

🎬 **Responsible Parties:**
- Genius Tags – technical reporting (on-chain metrics, dashboard analytics).
- UNDP Malawi – operational reporting (community surveys, stakeholder engagement).

🎬 **Format:**
- On-chain transaction logs (Genius Chain / Cardano).
- Genius Aid dashboard analytics (beneficiaries, distributions, feedback).
- Survey reports (community satisfaction, trust, food insecurity).
- Quarterly PDF summary reports + slide decks for stakeholders.

🎬 **Tools:** KoboToolbox, Genius Aid dashboard, Cardano/Genius Chain logs, standardized survey instruments.

7. Risks & Mitigation

Risk	Mitigation
Limited NGO/government data-sharing due to privacy concerns	**Use privacy-preserving hashing; establish data-sharing MoUs with clear protection clauses**
Low adoption by partners or communities	**Conduct early training, co-design sessions; incentives for testing**
Data inconsistency between on-chain and dashboard records	**Weekly reconciliation scripts and manual checks**

Connectivity issues in rural areas	**Offline-first design with batch synchronization**
Difficulty measuring "satisfaction"	**Use standardized survey tools, triangulate with complaints/feedback data**