Training of Trainers (ToT) Module 3

DIGITIZATION SYSTEMS AND DIGITAL TRANSFORMATION FOR SOMALI HUMANITARIAN WORK

ToGETHER 2.0 Programme

Target Group: **Local Humanitarian Partners (LHPs)**
Peer Humanitarian Organization (PHPs)

Developed by: ABYAN Consulting

ACKNOWLEDGEMENT

This Training of Trainers (ToT) Manual on Digitization System and Digital Transformation for Somali Humanitarian Work has been developed through a collaborative and consultative process involving national and local humanitarian actors committed to strengthening digital capacity, data protection and system efficiency within Somali humanitarian programming.

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This manual reflects the collective commitment of all stakeholders to ensure that climate adaptation knowledge is practical, context-appropriate, and directly usable by local humanitarian actors to improve preparedness, response, and resilience outcomes across Somalia.

We thank all contributors for their time, expertise, and collaboration

ACRONYMS AND ABBREVIATIONS

Acronym	Full Term
EPR	Emergency Preparedness and Response
ICT4D	Information and Communication Technology for Development
MEAL	Monitoring, Evaluation, Accountability and Learning
MEL	Monitoring, Evaluation and Learning
PSEA	Prevention of Sexual Exploitation and Abuse
USSD	Unstructured Supplementary Service Data

IDP	Internally Displaced Person
LHPS	Local Humanitarian Partners
CVA	Cash and Voucher Assistance
CHW	Community Health Worker
CRM	Complaint and Response Mechanism
DPIA	Data Protection Impact Assessment
DRM	Data Risk Management
GBV	Gender-Based Violence
ICT	Information and Communication Technology
IM	Information Management
KII	Key Informant Interview
M&E	Monitoring and Evaluation
MIS	Management Information System
OCHA	Office for the Coordination of Humanitarian Affairs
RBAC	Role-Based Access Control
SIM	Subscriber Identity Module
ToGETHER	Towards Greater Effectiveness and Timeliness in Humanitarian Emergency Response
SOLO	Somali Lifeline Organization
SOP	Standard Operating Procedure
SYPD	Sustainable Development and Peace Building Initiatives
PHPs	Peer Humanitarian Organization
WASH	Water, Sanitation and Hygien

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UNIT
01

UNDERSTANDING DIGITIZATION AND DIGITAL TRANSFORMATION IN SOMALIA

1. Introduction

Digital transformation is increasingly shaping the way humanitarian assistance is planned, delivered, monitored, and accounted for in Somalia. In a context marked by protracted displacement, recurrent climate shocks, insecurity, and limited infrastructure, digital systems offer significant opportunities to improve efficiency, transparency, accountability, and reach. Mobile money, digital data collection, beneficiary registration systems, and remote monitoring tools are now central to humanitarian operations across the country.

However, digitization in Somalia is not a neutral or purely technical process. Access to digital tools is shaped by intersecting factors including gender, age, literacy, disability, displacement status, clan dynamics, geography, and poverty. Women, older persons, persons with disabilities, minority clans, and newly displaced households often face barriers to accessing or safely using digital systems, particularly in low-connectivity and conservative settings where phones and SIM cards may be shared or controlled by others.

Poorly designed or externally imposed digital systems can increase exclusion, heighten protection risks, undermine community trust, and expose sensitive data to misuse in conflict-affected environments. Risks related to data protection, surveillance, biometric misuse, and unauthorized data sharing are particularly acute in Somalia's fragile political and security context. Digital transformation must therefore be conflict-sensitive, protection-aware, and grounded in local realities.

This module goes beyond a "technology-first" approach and promotes responsible, inclusive, and context-appropriate digitization tailored to Somali humanitarian work. It recognizes that digital systems are only effective when they align with humanitarian principles, safeguard affected populations, and strengthen—rather than replace—local knowledge, relationships, and accountability mechanisms.

The module acknowledges the central role of Local Humanitarian Partners, community structures, and frontline staff in shaping how digital tools are introduced, used, and governed. It emphasizes the importance of local ownership, digital sovereignty, and ethical data management, ensuring that communities are not merely data sources but rights-holders whose dignity, privacy, and agency are respected.

Developed under the ToGETHER 2.0 Programme, this training module aims to strengthen the capacity of PMWDO and partner Local Humanitarian Partners to design, implement, and manage digital systems that are safe, inclusive, and fit for purpose. The module integrates protection, accountability, safeguarding, and Do No Harm principles while supporting digital solutions across humanitarian sectors, including MEAL, cash and voucher assistance, protection, livelihoods, and emergency response.

The module also supports localisation objectives by equipping Somali organizations with practical tools to assess digital readiness, manage digital risks, strengthen internal systems, and engage communities meaningfully in digital processes. It recognizes Somalia's strong mobile money

ecosystem alongside uneven internet access, low digital literacy in some groups, and high risks related to data misuse in conflict settings.

Through Somali-specific case studies, practical exercises, and participatory learning, participants will strengthen their ability to make informed decisions about digitization, protect sensitive data, mitigate exclusion and harm, and use digital tools to improve accountability and service delivery. The module enables Local Humanitarian Partners to approach digital transformation confidently, ethically, and consistently across humanitarian programmes under the ToGETHER 2.0 Programme.

Module Purpose

This module strengthens the capacity of Local Humanitarian Partners in Somalia to design, adopt, and manage digitization systems and digital tools that are ethical, inclusive, conflict-sensitive, and aligned with humanitarian principles, while protecting affected populations, strengthening accountability, and supporting locally led humanitarian action.

Unit Objectives

By the end of this unit, participants will be able to:

- Understand key digital concepts using simple, non-technical language
- Explain the difference between digitization, digitalization, and digital transformation
- Compare paper-based and digital systems in NGO Humanitarian contexts
- Identify common myths about digital tools and challenge them
- Learn from a Somali NGO case study
- Map their organization's current digital practices and identify improvement opportunities

Target Participants from 5 Local Humanitarian Partners

1. Programme Managers and Coordinators
2. MEAL and Information Management Officers
3. Finance and Cash and Voucher Assistance (CVA) Staff
4. Protection, Safeguarding, and PSEA Focal Points
5. ICT and Data Management Staff
6. Senior Management of Local Humanitarian Partners
7. Field Staff involved in data collection and community engagement

Facilitation Approach

This module is delivered using a highly participatory, visual, women/youth-friendly, practice-oriented facilitation approach that reflects adult learning principles and the realities of Somalia humanitarian work. The facilitation model prioritizes collective reflection, peer learning, and practical problem-solving over lecture-based instruction, recognizing that participants bring valuable field experience and contextual knowledge.

The training is structured to ensure the following balance throughout all sessions:

- 30 70% Facilitator-Led Participant Discussion

The facilitator guides structured discussions, reflection questions, and plenary exchanges that allow participants to analyze real-life digital practices, share experiences from their organizations, and collectively identify risks, gaps, and good practices. The facilitator's role is to prompt critical

thinking, manage group dynamics, ensure inclusion of all voices, and link discussion back to humanitarian principles, protection, and Do No Harm.

- 20% Group Work and Practical Exercises

Participants work in small, diverse groups to analyze Somalia-specific digital case studies, map risks, propose mitigation measures, and apply concepts to their own programmes. Group work encourages peer learning, collaboration across roles, and practical application of knowledge in low-resource and conflict-affected contexts.

- 10% Tutorial and Technical Input Sessions

Short, focused tutorial sessions are used to introduce key concepts, frameworks, definitions, and tools related to digitization, data protection, digital accountability, and safeguarding. Tutorials are concise and directly linked to subsequent discussions and exercises to avoid overloading participants with technical information.

Facilitation Principles

Facilitators should:

- Create a safe, respectful, and inclusive learning environment
- Encourage participation from women, field staff, and participants with less technical confidence
- Use simple, clear language and provide translation or clarification where needed
- Avoid promoting specific technologies; focus instead on decision-making, ethics, and context
- Link all discussions to Somali realities, humanitarian principles, and localization commitments

Session Flow

Each session should follow a consistent structure:

- Introduction and Learning Objective (tutorial input)
- Guided Plenary Discussion (facilitator-led)
- Group Exercise or Case Study Analysis
- Plenary Debrief and Reflection

Key Learning Summary and Practical Takeaways

To effectively facilitate this module, the following materials are required:

Core Training Materials

- Printed copies of the training manual
- Somalia-specific digital case studies (printed or projected)
- Flipcharts and markers
- Sticky notes and cards
- Projector and screen (if available)

Digital and Practical Materials

- Sample data collection forms (paper and digital screenshots)
- Example consent forms and data protection statements
- Illustrative screenshots of tools (e.g. Kobo, CommCare, mobile money, USSD)

- Risk mapping templates and group work worksheets

Accessibility and Inclusion

- Large-print materials where possible
- Space for small group work and movement
- Quiet area for participants who may need breaks during sensitive discussions

1.1 Key Concept: Digitization

Digitization is the foundational step in any technological journey. It is the technical process of converting physical, analog information into a digital format that a computer, smartphone, or tablet can process. In the simplest terms, it is the act of "changing paper into computer or phone data." Without digitization, the benefits of modern technology—such as instant sharing, long-term backup, and automated calculations—remain out of reach.

Digitization in the Somalia NGO Context

For organizations operating in complex environments like Somalia, digitization serves as the "bridge" between field reality and office reporting. It ensures that hard-earned data collected in remote areas is preserved and protected.

Common Examples include:

- Scanning Attendance Sheets: Using a scanner or a mobile app to create a PDF of a training participant list. This ensures that if the physical paper is lost or damaged during travel, a digital "twin" exists on the server.
- Digital Archiving of Signed Lists: Taking high-quality photos of beneficiary distribution lists. These photos serve as "digital proof" for donors, confirming that signatures or thumbprints were captured.
- Manual Data Entry: The process of a clerk reading data from a hand-written paper survey and typing that information into an Excel spreadsheet or a database.

The Evolution of Data

To understand where Digitization fits, it helps to see it as the first step in a three-part ladder:

STEP	ACTION	RESULT
Digitization	Scan a paper report.	You have a digital file (PDF/ Image).
Digitalization	Use a mobile app for the report.	The process is faster and more accurate.
Digital Transformation	Use data to change your strategy.	The organization becomes more efficient and effective.

KEY MESSAGE:

Digitization Does Not Change How Work Is Done, Only the Format.

2. The Essence of Digitalization

Digitalization is the strategic transition from manual, analog processes to digital workflows. While "digitization" refers to the simple act of converting physical information into a digital format (like scanning a document), digitalization is about improving the way work is done. It focuses on leveraging technology to enhance efficiency, accuracy, and communication. In simple terms, it is the mindset of "using technology to work faster and better," ensuring that digital tools are integrated into the daily rhythm of the field and the office to streamline operations.

Practical Applications in the Field

Digitalization manifests in tangible ways that directly impact the speed and quality of humanitarian and developmental work:

- Transitioning from Paper to Tablets: By replacing bulky paper forms with tablets or smartphones, organizations eliminate the need for manual data re-entry. This reduces "human error" and ensures that information is captured accurately at the source.
- Real-Time Data Collection: Using specialized tools like Kobo Toolbox or Open Data Kit (ODK), field staff can collect complex data—including GPS coordinates and photos—even in offline environments. Once a connection is found, the data is uploaded instantly, bypassing the days or weeks it usually takes for paper forms to reach a central office.
- Instant Communication & Reporting: Rather than waiting for formal monthly meetings, updates can be shared via WhatsApp, Telegram, or Email. This allows for immediate troubleshooting and keeps project managers informed of field realities in real-time.

Why It Matters: Beyond Just Storage

A common misconception is that digitalization is merely about storing files on a computer. However, the true value lies in process improvement:

FEATURE	MANUAL PROCESS (ANALOG)	DIGITALIZED PROCESS
Speed	Days/Weeks to aggregate data.	Instantaneous syncing and analysis.
Data Quality	High risk of lost forms or illegible writing.	Built-in logic checks and mandatory fields.
Feedback Loop	Slow; issues discovered after the fact.	Rapid; allows for "course correction" during activities.

The Human Impact

When we digitalize, the most significant shift happens at the point of service. Imagine a distribution site: instead of a long queue of beneficiaries waiting for a staff member to flip through hundreds of paper pages to find a name, a quick search on a tablet or a scan of a QR code verifies the individual in seconds.

KEY MESSAGE:

Digitalization isn't about the gadgets; it's about the process. It improves how we serve people by making our internal systems more responsive and less prone to delay.

3. Understanding Digital Transformation

Digital transformation is far more than just "going paperless" or buying new laptops; it represents a fundamental shift in the organizational DNA. It is the strategic integration of technology into every area of operation—changing how an organization plans its interventions, executes daily tasks, makes data-driven decisions, and reports back to stakeholders. In simple terms, it means that technology isn't just a tool on the desk; it is the engine that changes the entire way we work, moving from reactive, manual processes to proactive, automated, and interconnected systems.

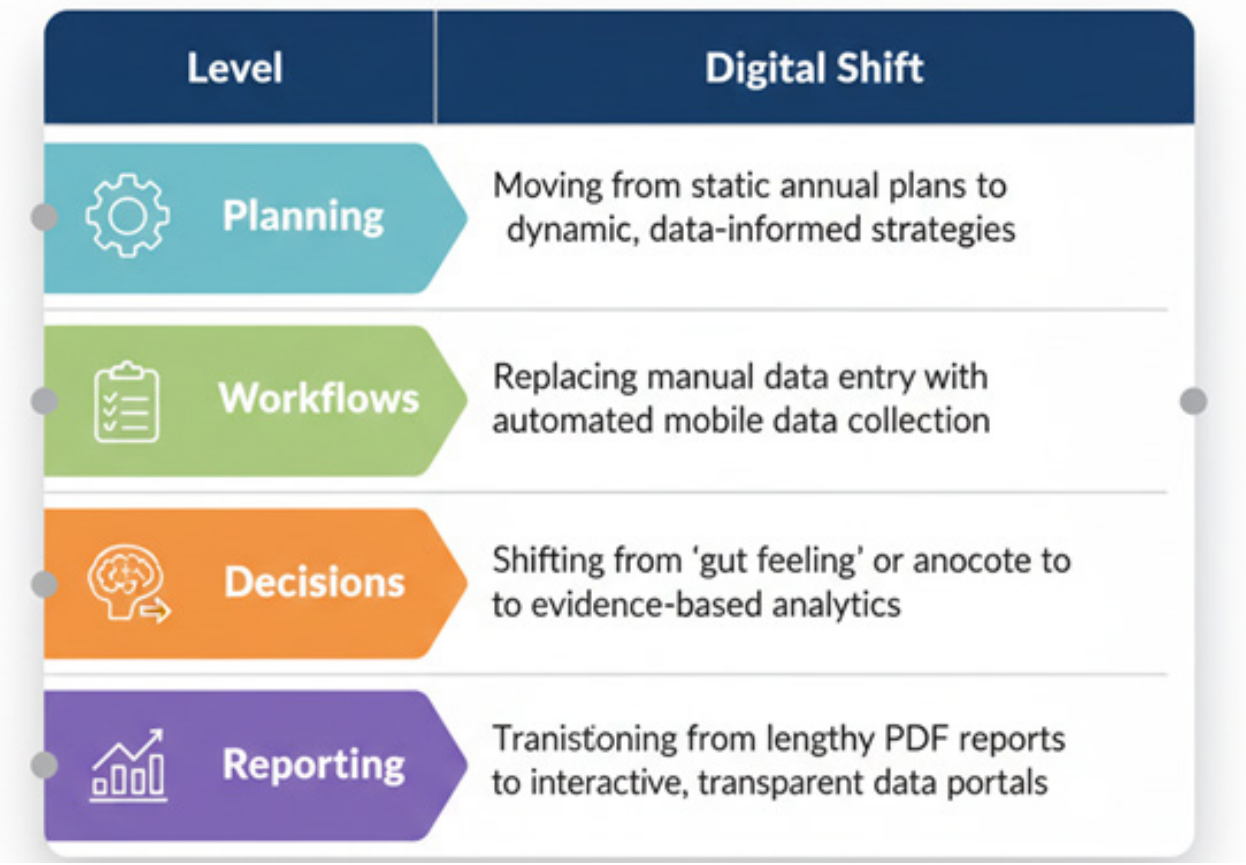
Core Areas of Impact

To see digital transformation in action, we can look at three critical operational pillars:

- Strategic Planning and Decision-Making: Instead of waiting weeks for field reports to be compiled, leadership can utilize real-time dashboards. These visual tools aggregate data instantly, allowing for agile project adjustments and informed decision-making based on what is happening now, rather than what happened a month ago.
- Operational Efficiency and Accountability: Tools like digital beneficiary verification (e.g., biometric scanning or mobile ID systems) ensure that aid reaches the right people. This reduces "leakage," eliminates duplicate records, and upholds a higher standard of transparency and accountability to donors.
- Collaboration and Connectivity: Transformation breaks down silos through online coordination platforms. Whether it's sharing resources with local partners in real-time or providing donors with live updates on funding impact, digital systems bridge the geographical and institutional gaps that often slow down humanitarian and developmental progress.

The "Whole-of-Organization" Approach

For transformation to be successful, it must address four specific levels of the organization:



1.2 Paper-Based vs Digital Systems

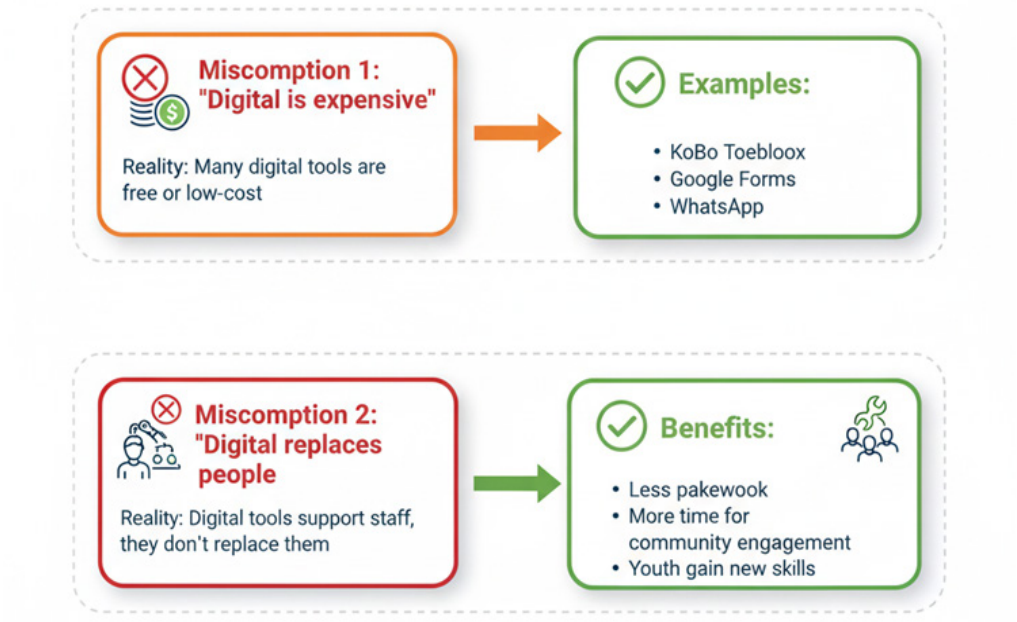
Area	Paper-Based System	Digital System
	Slow	Fast
	High risk of errors	
	Printing, transport, storage	Fewer errors
Cost	Lower long-term cost	
	Loss, fire, water damage	Backups possible
	Hard to reach youth & remote areas	Mobile & youth-friendly

Discussion Prompt

Ask participant

1. Which systems do you currently use?
2. What problems do you face with paper?
3. Where could digital tools help most?

1.3 Common Misconceptions About Digital Tools



1.5 PRACTICAL EXERCISE: DIGITAL MAPPING

Group work (5–7 people per group)

Step 1: Mapping Current Tools (10 min)

- Each group lists:
- Tools currently used (paper, Excel, WhatsApp, Kobo)
- Purpose of each tool

Step 2: Who Uses What? (1 min)

Map:

- Staff
- Volunteers
- Youth
- Women leaders

Step 3: Challenges (15 min)

Identify:

- Skill gaps
- Power access
- Device availability
- Safety concerns

Step 4: Key Takeaways (15 min)

Each group answers:

- What can be digitized first?
- What support is needed?
- What is one realistic next step?

UNIT
02

ROLE OF DIGITAL TOOLS IN LOW-CONNECTIVITY HUMANITARIAN CONTEXTS

Training Style:

Practical • Visual • Scenario-based • Low-tech friendly • Youth-inclusive

LEARNING OUTCOMES

By the end of this unit, participants will be able to:

- Select appropriate digital tools for low-bandwidth and no-internet settings
- Understand offline, SMS, USSD, and voice-based solutions
- Match digital tools to real connectivity conditions in Somalia
- Apply digital tools safely and realistically in humanitarian operations

Connectivity in Somalia

Introduction: Why Low-Connectivity Matters in Somalia

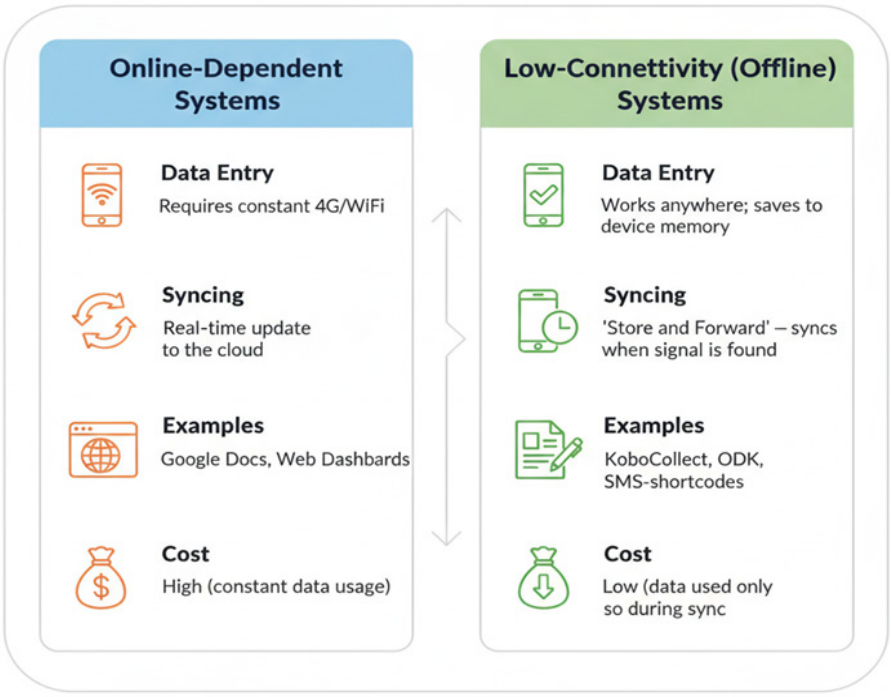
In Somalia, the "digital divide" is not just a technical hurdle—it is a daily reality for humanitarian workers. As of 2026, while urban hubs like Mogadishu and Baidoa see increasing fiber-optic links and 4G coverage, the vast majority of humanitarian interventions occur in areas where the internet is weak, expensive, or entirely unavailable.

Understanding Low-Connectivity is essential because it shifts our focus from "high-tech" dreams to "right-tech" realities. In this context, the goal is not to wait for a perfect signal, but to deploy systems that work regardless of it.

Common Field Realities in Somalia

- Remote Pastoral and Rural Areas: Aid often reaches communities in "off-grid" zones. In these areas, traditional cloud-based apps fail. Digital tools must have offline-first capabilities, allowing data to be saved locally on a device and synced only when a staff member returns to a town with a signal.
- Mobile Networks vs. Mobile Internet: Somalia has one of the most vibrant mobile sectors in Africa, but there is a major gap between GSM (calling/SMS) and Data (3G/4G/5G). While a village might have enough signal for an SMS-based alert system or a mobile money transfer (EVC Plus/Sahal/Zaad), it may not have enough bandwidth to load a heavy web-based reporting form.
- Infrastructure Shocks: Electricity is often unreliable and expensive. Field teams must rely on solar-powered power banks and devices with long battery lives. Furthermore, conflict or political instability can lead to sudden network shutdowns, making local, offline backups a matter of security and continuity.
- Shared Devices and High Mobility: In many communities, one smartphone may serve an entire extended family. Furthermore, displaced populations move frequently due to climate shocks (drought/floods). Digital systems must be flexible enough to track people across different locations without requiring them to own personal devices.

Comparison: Online vs. Offline Digital Tool



Facilitator Note: Low-Tech is still Digital

A common misconception is that "digital" means "online." However, some of the most effective digital transformations in Somalia are low-tech.

- SMS-based Early Warning Systems that alert farmers to floods.
- Offline Biometric Verification that ensures the right person gets food without needing a live database link.
- Radio Ergo combined with digital feedback—where listeners call a "Freedom Fone" IVR (Interactive Voice Response) system to leave reports.

KEY MESSAGE:
In Somalia, the most successful digital tools are those designed for the offline environment. We do not build for the internet we wish we had; we build for the connectivity we actually have.

Understanding Connectivity Levels in Somalia

LEVEL	DESCRIPTION	EXAMPLE
No Connectivity	No internet, weak or no signal	Remote grazing areas
Low Connectivity	Mobile signal only	Rural villages
Medium Connectivity	Slow internet	District towns
High Connectivity	Stable internet	Major cities

Local Realities First

The golden rule of humanitarian technology is to choose tools that work where you are, not where your donors are. Too often, systems are designed in well-connected capital cities, only to fail in the field. To be effective in the Somali context, digital tools must be resilient to "dead zones," high data costs, and power outages.

1. Offline-First Design

What Does "Offline-First" Mean?

Offline-first is a design philosophy where the tool assumes there is no internet by default. Instead of showing an error message when the signal drops, the app continues to function perfectly, saving all your work locally on the phone or tablet.

CORE PRINCIPLES:
1. Collect Data Offline: Field staff can fill out complex forms, take photos, and record GPS points without a single bar of signal.
2. Secure Local Storage: Data is encrypted and stored safely on the device's internal memory so it isn't lost if the battery dies.
3. Background Sync: The moment the device detects a stable Wi-Fi or 4G connection (e.g., when the team returns to the office), it automatically "pushes" the data to the server.
4. Zero Dependency: The workflow never stops to "load" or "buffer" while in the field.
COMMON OFFLINE-FIRST TOOLS:
• KoboToolbox / ODK: The industry standard for mobile surveys.
• Excel (Mobile/Offline): For managing simple lists and trackers without a cloud connection.
• Maps.me / Google Maps (Offline): For navigating remote areas using pre-downloaded map data.

2. SMS and USSD Systems

In areas where even basic mobile data (3G/4G) is unavailable, we rely on the most universal digital channel: The Cellular Network.

SMS (Short Message Service)

SMS is the “workhorse” of remote communication. Because it uses very low bandwidth, a text message can often get through even when a voice call drops.

- Alerts: Sending rapid warnings about weather or security.
- Beneficiary Feedback: Allowing community members to text “COMPLAINT” or “SUGGESTION” to a dedicated number.
- Reminders: Automatic texts for vaccination appointments or food distribution dates.

USSD (Unstructured Supplementary Service Data)

You likely know USSD as the “star-hash” codes (e.g., *123#) used for mobile money like EVC Plus, Sahal, or Zaad. Unlike SMS, USSD is session-based, meaning it creates a real-time, two-way menu on the user’s screen.

FEATURE	SMS SYSTEMS	USSD SYSTEMS
User Experience	One-way or back-and-forth texting.	Interactive "Press 1 for Yes, 2 for No" menus.
Speed	Can be delayed during network traffic.	Real-time; instant response.
Cost	Usually costs a small fee per text.	Often zero-rated (free) for the user.
Phone Type	Works on any mobile phone ever made.	Works on any mobile phone ever made.

KEY MESSAGE:

Offline-first and SMS/USSD tools ensure that technology serves the mission, regardless of the infrastructure. They turn a basic “Nokia” into a powerful tool for accountability and data.

Understanding USSD Systems

USSD (Unstructured Supplementary Service Data) is a communication protocol that allows for a real-time, interactive exchange of information between a mobile phone and a service provider’s network. Often referred to as “Quick Codes” or “Feature Codes,” these are the familiar sequences that begin with an asterisk (*) and end with a hash (#), such as *123#.

In the Somali context, USSD is arguably the most powerful digital tool available. Because it is built directly into the cellular signaling channel, it does not require a data plan, an internet connection, or even a smartphone. It turns a basic “brick” phone into an interactive terminal, making it the ultimate tool for reaching the most remote and vulnerable populations.

Core Use Cases in Humanitarian Action

USSD transforms how NGOs interact with communities by providing a self-service menu that works instantly. Common applications include:

- Self-Registration: Instead of waiting for a team with tablets to arrive, community members can dial a specific code to register for a program or verify their enrollment status.
- Real-Time Polling: Organizations can push a prompt to users, asking them to vote or answer a quick “Yes/No” question (e.g., “Did you receive your ration today? Press 1 for Yes, 2 for No”).
- Beneficiary Feedback & Complaints: USSD provides a private, structured way for people to report issues. A user can navigate a menu to categorize their feedback (e.g., “Staff behavior,” “Quality of goods,” or “Safety”) without needing to speak to someone directly.
- Remote Reporting: Community health workers or village elders can use USSD menus to report local incidents, such as disease outbreaks or water pump failures, sending the data directly to an NGO dashboard in seconds.

Why USSD Wins in the Field

FEATURE	USSD ADVANTAGE
Accessibility	Works on 100% of GSM mobile phones, from the oldest Nokia to the latest iPhone.
Connectivity	Requires Zero Internet. If you have enough signal to make a phone call, you can use USSD.
Cost-Effective	Often set up as "zero-rated," meaning it is completely free for the beneficiary to use.
User Experience	Unlike SMS, which requires typing long messages, USSD uses simple numeric inputs (Press 1, Press 2), which is much easier for users with lower literacy.
Security	USSD sessions are not stored on the phone’s memory (unlike SMS), making it a more secure and private way to handle sensitive information.

Example: “Press 1 for money Transfer”

Understanding Voice-Based Information Systems

Voice-Based Information Systems are digital communication tools that deliver or collect information through spoken language via a telephone network. While SMS and USSD rely on text and menus, voice systems prioritize the human ear and voice. In a country like Somalia, where oral tradition is a cornerstone of culture, these systems are often the most trusted and effective way to bridge the gap between an organization and the community.

Key Types of Voice Systems

There are three primary ways NGOs deploy voice technology in the field:

1. Interactive Voice Response (IVR): This is an automated “digital receptionist.” When a user calls a specific number, they hear a pre-recorded menu (e.g., “For health advice, press 1; to report a problem with food distribution, press 2”). Based on the caller’s keypad input, the system provides tailored information or records their spoken response.
2. Call Centers: A more personal approach where trained operators (often speaking local dialects) answer calls directly. This is the gold standard for complex protection cases or psychological support where a human touch and empathy are required.
3. Recorded Hotlines (Information Loops): These are “one-way” libraries where users can call to listen to important updates—such as weather warnings, hygiene tips, or market prices—without needing to interact with a live agent.

WHY VOICE MATTERS IN SOMALIA

For many Somali communities, voice systems are not just a convenience; they are a necessity for inclusion

- Bridging the Literacy Gap: In areas where literacy rates are low, text-based systems (SMS) can unintentionally exclude the most vulnerable. Voice systems ensure that anyone who can speak and listen can access aid information.
- Empowering Elders and Women: Older generations may struggle with the small fonts or complex menus of a smartphone but are highly comfortable using a phone for calling. Similarly, voice systems provide a private way for women to access information or report issues from the safety of their homes.
- Maximum Accessibility: Voice systems do not require 3G, 4G, or a smartphone. They work on the most basic "feature phones" and even landlines, ensuring that even the most remote pastoralist can stay connected.
- Cultural Alignment: Somalia has a rich "oral culture." People are more likely to trust and engage with a message that is spoken in their local dialect with the correct tone and emphasis, rather than a cold text message.

Comparison: Voice vs. Text

FEATURE	SMS/USSD (TEXT)	VOICE (IVR/CALL CENTER)
Literacy Required	Moderate to High	None
Tone & Empathy	Low	High
Cost to NGO	Very Low	Moderate
Data Richness	Limited to short text	Can capture complex stories/feelings

KEY MESSAGE:

Voice systems turn the mobile phone into a human connection. By speaking the language of the community—literally and figuratively—organizations can build deeper trust and ensure no one is left behind.

MATCHING TOOLS TO CONNECTIVITY LEVELS

Tool Matching Table

FEATURE	SMS/USSD (TEXT)
No Connectivity	Paper + offline digital backup
Low (Signal only)	SMS, USSD, Voice
Medium	Offline apps + periodic sync
High	Online platforms & dashboards

Rule: Never rely on one tool only.

Somalia Case Study Biometric Registration In An IDP Settlement

Context

A Local Humanitarian Partner (LHP) is contracted to support emergency food assistance in a large IDP settlement on the outskirts of Baidoa following drought-related displacement. The donor requires biometric registration (fingerprints) to reduce duplication and improve accountability.

Many households are newly displaced, with limited documentation. Women report that phones and IDs are often controlled by male relatives. Some community members express fear that biometric data could be shared with authorities or used for security screening.

What Happened

During registration:

- Some older persons and manual laborers had unreadable fingerprints.
- Women survivors of GBV avoided registration due to fear of exposure.
- Rumors spread that biometric data would be shared with security actors.
- Persons with disabilities faced long waiting times due to system errors.

The LHP proceeded under pressure to meet targets but did not fully explain data use or consent procedures.

Key Risks

- Protection risks linked to data misuse
- Exclusion of specific groups
- Loss of community trust
- Violation of informed consent principles

Discussion Questions

1. What Do No Harm risks emerged from this biometric system?
2. Which groups were most excluded and why?
3. What alternatives or safeguards could have been applied?

Key Learning Points

- Biometrics must never override protection and inclusion concerns
- Informed consent must be meaningful, not procedural
- Non-biometric alternatives should be available
- Community engagement is essential before data collection

Data Collection in Remote Pastoral Areas

Scenario

An NGO collects nutrition data among nomadic pastoralists in a remote region.

Challenges:

- No internet
- Low literacy and language barrier

- High mobility
- Shared phones

Solution Applied

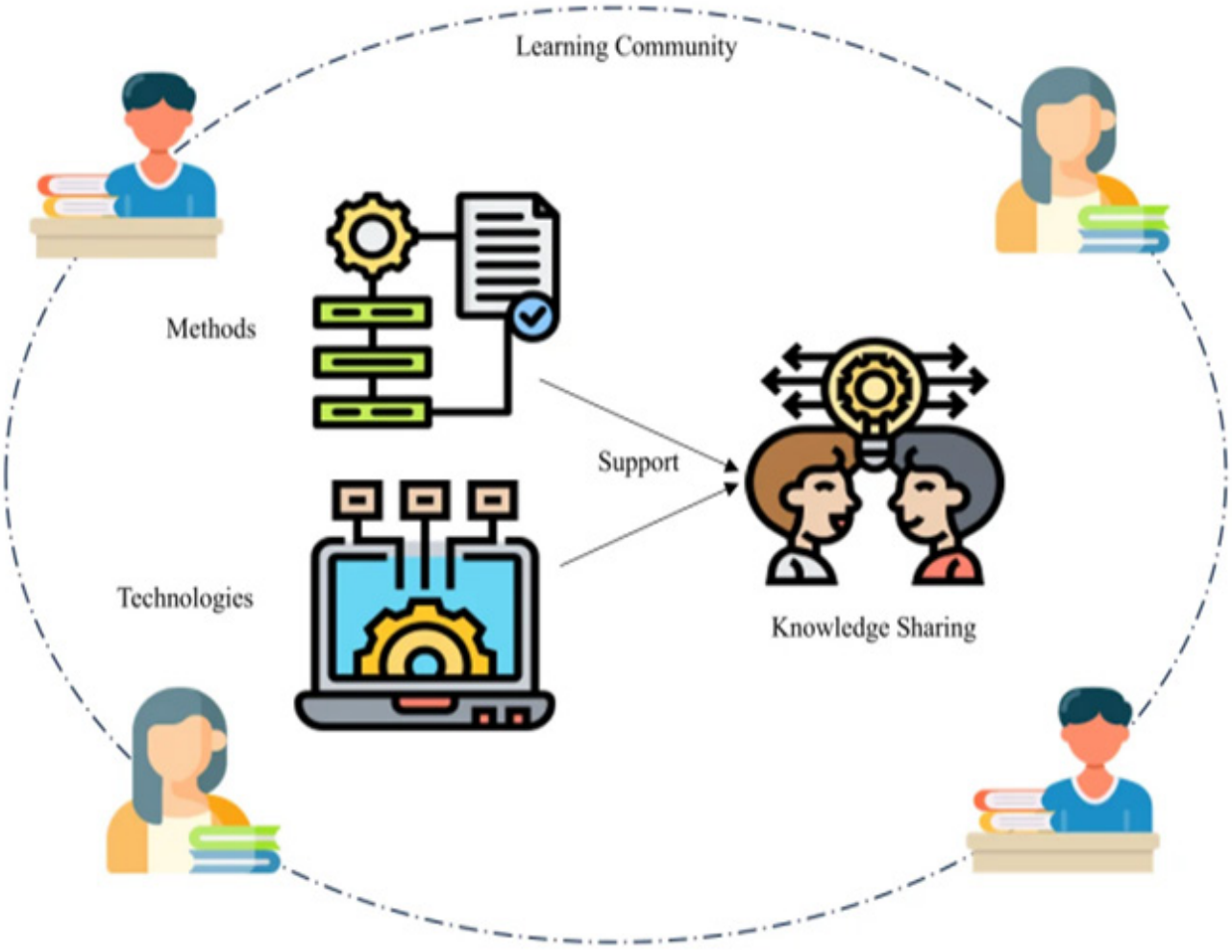
- Kobo offline data collection
- SMS follow-up messages
- Voice hotline for questions
- Data synced weekly at district office

Results

- Accurate data
- Reduced errors
- Community trust improved
- Youth enumerators empowered

Lesson Learned:

Digital tools must fit people's reality, not assumptions.



PRACTICAL EXERCISE – TOOL SELECTION

Method: Group work (5–6 people)

Step 1: Scenario Cards (20 min)

Each group receives 3 scenarios:

- Pastoral area – no internet
- Rural village – mobile signal only
- District town – weak internet

Visual: Scenario cards with icons

Step 2: Tool Matching (15 min)

Groups decide:

- Which tools to use
- Why they fit the context
- Risks and mitigation

Worksheet provided

Step 3: Group Presentations (10 min)

Each group shares:

- Selected tools
- Key reasoning
- One risk

Step 4: Reflection (10 min)

Facilitator questions:

- What tool surprised you?
- What will you stop using?
- What will you start using?

UNIT
03

AFFORDABLE ELECTRONIC EPR SYSTEMS AND MOBILE MONEY PLATFORMS

Context: Somalia |Style: Practical & Inclusion-Focused

Learning Outcomes

By the end of this unit, participants will be able to:

1. Define the architecture of an Electronic Payment and Registration (EPR) system.
2. Navigate the specific USSD interfaces of EVC Plus, SAAD, and Sahal for NGO use.
3. Execute a 5-step bulk payment workflow without compromising data security.
4. Implement "Do No Harm" protocols for marginalized groups (Elderly, IDPs, PLWD).

Why Electronic EPR & Mobile Money?

The "Somalia Context" Advantage:

Somalia's ecosystem is unique; mobile money (USSD-based) often replaces physical cash and traditional banking entirely.

Why Transition from Manual to Electronic?

- **Speed:** Near-instant disbursement compared to physical cash convoys.
- **Safety:** Reduces the risk of "taxation" or looting at checkpoints.
- **Audit Trail:** Every 1.00 USD has a digital footprint (Sender, Receiver, Timestamp, Transaction ID).
- **Dignity:** Beneficiaries receive funds privately, avoiding long, visible queues that can compromise their safety.

The Anatomy of an EPR System

An EPR isn't just an app; it is a database linked to a wallet.

The Four Pillars:

- **Registration Module:** Captures Biometrics (if possible), Phone Number (Primary Key), and Household Data.
- **Validation Logic:** Automatically flags duplicate phone numbers or "ghost" beneficiaries.
- **Payment Gateway:** The bridge between the NGO's bank/SIM and the Mobile Network Operator (MNO) like Hormuud or Telesom.
- **Reconciliation Engine:** Matches "Sent" vs. "Received" logs to provide instant MEAL reports.
- **Facilitator Tip:** Remind participants that the "E" in EPR stands for Electronic, but the "P" (Payment) is where the most risk lies. Accuracy is non-negotiable.

Deep Dive – Somalia's Mobile Ecosystem

Not all platforms are equal. Choosing the right one depends on the "Zone of Intervention."

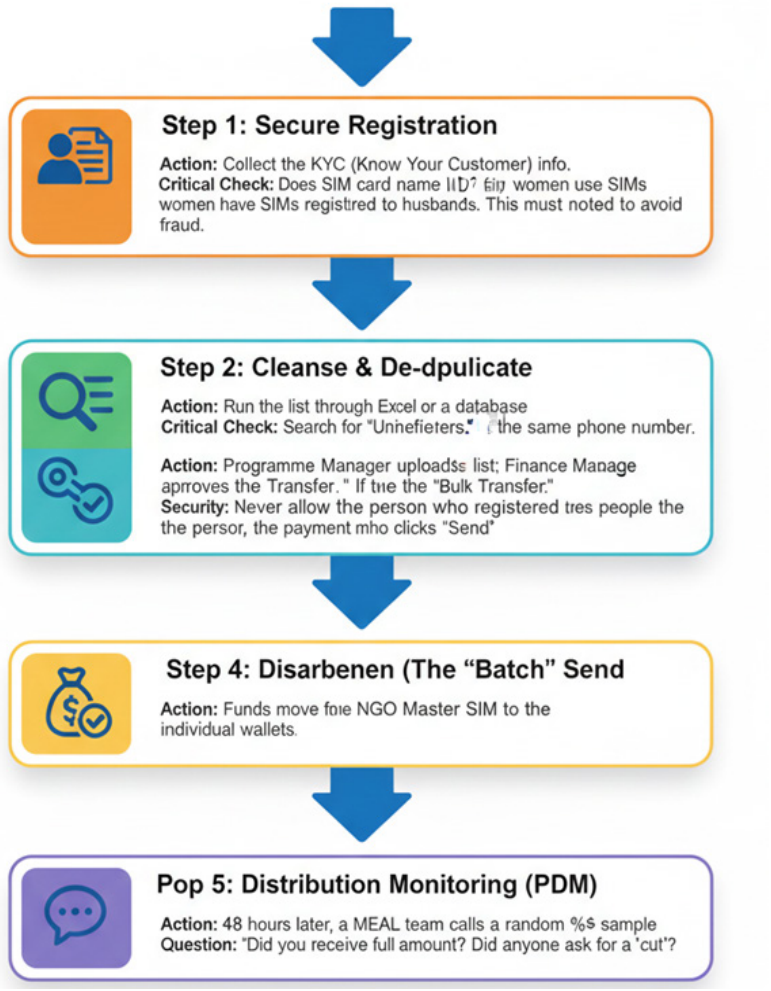
PLATFORM	OPERATOR	REGION STRENGTH	NGO FEATURE
EVC Plus	Hormuud	South/Central	Most widely used; supports 121 USSD menus.
SAAD	Telesom	Somaliland	High security; robust merchant integration.
Sahal	Golis	Puntland	Excellent coverage in northern rural areas.

Technical Requirement: Participants must understand the USSD String.

Example: *123*Amount*Number*Pin# (This varies by provider).

The 5-Step Mobile Cash Workflow

Detailed Standard Operating Procedure (SOP)



Inclusion & "Do No Harm"

Mobile money can unintentionally exclude the most vulnerable.

Barriers & Solutions

- **The Literacy Gap:** Many elderly users cannot read USSD menus.

  Solution: Use "Trusted Nominees." A family member is registered, but the elderly beneficiary receives the SMS notification.

- **The Tech Gap:** No phone or no charging power.

  Solution: Solar-charging stations at community centers or providing low-cost "feature phones" as part of the kit.

- **The Gender Gap:** Men often control the household phone.

  Solution: Encourage registration of SIMs in the woman's name to increase her "Financial Agency."

Risk Mitigation Matrix

RISK	IMPACT	MITIGATION STRATEGY
SIM Swapping	High	Use "SIM-Lock" features and verify identity via community leaders.
Wrong Number Entry	Medium	Conduct a 1 USD "test payment" before sending the full amount.
Network Outage	Low	Schedule payments during off-peak hours (avoid Friday afternoons).
Inflation/Exchange	High	Set transfers in USD where possible (standard for EVC Plus/SAAD).

ROLEPLAY SIMULATION (30 MINS)

- **Scenario:** "A flash flood in Baidoa has displaced 200 families. You have 3 hours to register and pay them 60 USD each."
- **Group A (The Team):** Must create a "Clean List" on paper.
- **Group B (The Beneficiaries):** Some have lost their SIMs, one is blind, one is a "gatekeeper" trying to take a cut.
- **The Challenge:** The Team must navigate these "shocks" while maintaining the EPR logs.

Case Study – The Baidoa Success

Context: A Women-led CSO used Sahal to support 400 IDP households.

- **The Innovation:** They used "Voice Verification" for illiterate beneficiaries.
- **The Result:** 100% delivery rate within 24 hours of the funding arrival.
- **Lesson Learned:** Community engagement before the SMS is sent reduces panic and "fake news."

Facilitator Checklist

1. **Handouts:** Provide a "Cheat Sheet" of USSD codes for EVC, SAAD, and Sahal.
2. **Tech:** Ensure you have at least 3 different types of phones (Smartphone, Feature Phone, "Brick" Phone) to show the interface.
3. **Safety:** Remind participants never to share their PINs during the training or in the field.

UNIT
04

ICT FOR DEVELOPMENT (ICT4D) IN THE SOMALI CONTEXT

Context: Somalia | Duration: 6 Hours | Style: Low-Tech, High-Impact

Learning Outcomes

By the end of this unit, participants will be able to:

- Distinguish between "Technology for Technology's sake" and "ICT4D" (impact-driven).
- Apply Human-Centered Design (HCD) to create tools that work for non-literate users.
- Deploy "Hybrid Solutions" (combining digital tools with traditional community structures).
- Identify "Data Sovereignty" risks specific to the Somali humanitarian landscape.

Beyond the Gadgets – What is ICT4D?

In Somalia, technology is not the solution; it is the delivery vehicle. If the community doesn't trust the driver, they won't get on the bus.

The 4 Pillars of ICT4D in Somalia:

- **Affordability:** Does it work on a 15 USD "Nokia" feature phone?
- **Infrastructure:** Does it work offline or on 2G Edge networks?
- **Language:** Is it in the local dialect (Af-Maay or Af-Maxaatiri)?
- **Orality:** Does it cater to an oral culture (voice/audio) rather than just text?
- **Facilitator Note:** Many NGOs fail because they build apps for smartphones when the community uses USSD. Always design for the lowest common denominator.

Participatory & Human-Centered Design (HCD)

The HCD Cycle for Somalia:

Step 1: Empathize. Sit with the women at the water point. Watch how they hold their phones. Do they have credit? Is the screen cracked?

Step 2: Define. The problem isn't "lack of an app"; the problem is "mothers don't know when the vaccine clinic is open."

Step 3: Ideate. Would a WhatsApp voice note work better than a printed poster?

Step 4: Prototype. Draw the "app" or "SMS menu" on a piece of paper first. Ask the community to "click" the paper buttons.

Mirroring the Somali Oral Tradition

To truly integrate ICT4D into the Somali context, organizations can utilize the following strategies:

- **Digital "Shir" (Meetings):** Using voice-note groups or IVR systems to replicate the traditional community gathering, allowing for decentralized, spoken debate.
- **Poetry as Messaging:** Since the "Gabay" (poem) is a traditional way to share news and wisdom, using poetic structures in health or safety recordings can make the information

more memorable and respected.

- **Peer-to-Peer Audio:** Encouraging community leaders to record "Voice Testimonials" that can be shared via WhatsApp or radio, as people are more likely to trust the voice of a neighbor than a generic automated message.

KEY MESSAGE:

True digital transformation in Somalia is about vocalizing the data. By designing for the ear rather than the eye, we honor the community's heritage while ensuring that technology is a tool for empowerment, not a barrier to it.

Inclusion Strategies:

- **Interactive Voice Response (IVR):** Like a phone menu you listen to. "Press 1 for Food Support, Press 2 for Health." Great for illiterate users.
- **Visual Icons:** Use the "Camel" icon for livestock alerts or a "Mother/Child" icon for nutrition.
- **Audio-SMS:** Sending links to short voice clips.
- **The "Radio-Mobile" Link:** Using local FM radio to broadcast a code, which people then text to a shortcode.

The ICT4D Toolbox – Selecting the Right Gear

TOOL	BEST USED FOR...	SOMALI CONTEXT TIP
KoboToolbox	Rapid Needs Assessments	Use the "Offline" feature; sync when back in the office.
WhatsApp/ Telegram	Community Engagement	The #1 tool in Somalia. Use "Broadcast Lists" for privacy.
*USSD (123#)	Feedback & Surveys	Works without internet. Zero cost to the beneficiary.
Viamo/3-2-1	Mass Education	Providing health info via toll-free voice calls.

5: Case Study – The "Radio-SMS" Feedback Loop

Location: Puntland

Problem: Drought-affected pastrolist farmers couldn't report dying livestock quickly enough to get aid.

Solution:

1. The local radio station announced a "Drought Hotline."
2. Farmers sent a free SMS with their location.
3. An automated system mapped these "Hotspots" in real-time.
4. NGOs used the map to deploy water trucking to the highest-need areas.

Result: Response time dropped from 14 days to 48 hours.

Practical Exercise – The "Design Sprint"

Objective: Solve a specific problem using a "No-Tech" or "Low-Tech" ICT solution.

Scenario Options:

- **Option A:** A youth group wants to report "Peace-building" incidents safely. Option B: A Women's Cooperative needs to track their daily savings.
- **Option C:** An IDP camp needs to announce food distribution dates without causing a stampede.

Group Tasks:

1. **Map the User Journey:** How does the person find out about the tool?
2. **Identify the Barrier:** Is it battery life? Is it a "Gatekeeper" husband?

Choose the Tech: SMS, Voice, or WhatsApp?

Safety, Privacy & "Do No Harm"

Technology can be a double-edged sword.

- **Risk of Surveillance:** In sensitive areas, digital footprints can put people at risk.
- **Data Minimization:** Don't ask for a mother's full name and ID if you only need her neighborhood and family size.
- **The "Broken Phone" Risk:** If the tool breaks, does the service stop? Always have a manual backup.
- **Security Rule:** Never store sensitive beneficiary data on a phone without a password/ biometric lock.

8: Unit Summary & Checklist

- **People First:** Is this solving a community problem or just making the NGO's job easier?
- **Literacy Check:** Can a person who cannot read use this?
- **Sustainability:** Who pays for the SMS/Server once the project ends?
- **Feedback:** Have we told the community how their data was used?

UNIT
05

DIGITAL LITERACY AND SAFEGUARDING FOR VULNERABLE COMMUNITIES

Context: Somalia | Style: High-Empathy & Risk-Mitigation

Learning Outcomes

By the end of this unit, participants will be able to:

- Conduct a Digital Risk Assessment for specific vulnerable groups (IDPs, Women, PLWD).
- Teach "Digital Hygiene" (PIN management, SMS verification) to non-literate users.
- Implement PSEA (Protection from Sexual Exploitation and Abuse) protocols within digital cash workflows.
- Detect and Counter "Social Engineering" scams common in the Somali mobile money ecosystem.

The Dual Face of Connectivity

KEY MESSAGE:

In Somalia, a mobile phone is a lifeline, but for a woman in an IDP camp or a marginalized youth, it can also be a "digital window" for predators.

The Vulnerability Matrix:

- **The Gender Gap:** Women often use "borrowed" phones, meaning their private financial SMS can be read by male relatives.
- **The Literacy Gap:** If a beneficiary cannot read, they must trust a stranger to enter their PIN—this is the #1 point of exploitation.
- **The IDP Mobility:** Frequent loss of SIM cards leads to identity theft and loss of aid access.

Digital Hygiene & Local Literacy

Digital Literacy is a Shield. We must move beyond "how to use a phone" to "how to stay safe."

Core Skills for the Somali User:

- **The "Golden Rule" of PINs:** Never share the 4-digit code, even with NGO staff or shopkeepers.
- **SMS Verification:** Learning to distinguish a "System Message" (e.g., from Hormuud/Telesom) from a "Private Message" scam.
- **Physical Security:** Deleting sensitive transaction SMS after the money is withdrawn to prevent "taxation" at checkpoints.
- **Facilitator Tip:** Use the "Sand-Writing Technique." If a beneficiary is illiterate, have them practice their 4-digit PIN by drawing it in the sand to build muscle memory before typing it into a keypad.

The "NGO Impersonator" Threat:

Scammers often call beneficiaries claiming to be "The UN" or "The NGO," asking for a "registration fee" to unlock their cash aid.

The "S.A.F.E." Verification Method:

A. **S – Sender:** Is the number a hidden shortcode or a regular mobile number?
B. **A – Ask:** NGOs will never ask for money to give money.
C. **F – Fact-Check:** Call the official NGO hotline (show them the number).
D. **E – Exit:** If they ask for your PIN, hang up immediately.

Gender-Sensitive Digital Safeguarding

In many Somali households, the "Gatekeeper" (husband/father) controls the technology.

Safeguarding Strategies:

- **The "Private Booth" Concept:** During cash registration, provide a female-only space where women can set their mobile money PINs without men watching.
- **Sim-Card Ownership:** Assist women in registering SIMs in their legal names to ensure they maintain control over the "Digital Wallet."
- **Discreet Notifications:** If possible, schedule disbursements during daylight hours when women are more likely to have access to the phone.

PSEA in the Digital Era

Digital tools create new power dynamics. We must prevent Digital Extortion.

Critical Safeguards:

No "Phone for Favors": Ensure community volunteers understand that asking for a beneficiary's number for personal reasons is a breach of PSEA.

Anonymized Reporting: Use a "Shortcode" (e.g., 444) for reporting abuse so that the caller's identity is protected from local staff.

Data Minimization: Only collect the phone number. Do not store photos of beneficiaries alongside their financial data unless absolutely necessary.

Case Study – The "Silent Call" Solution

Location: Baidoa IDP Settlement.

Challenge: Women were being harassed by "brokers" who saw them receiving cash and demanded a portion.

The Solution:

The NGO switched from SMS alerts (which can be "overseen") to a Voice-IVR call.

The woman receives a phone call; she hears a recorded voice in Af-Maay telling her her "package is ready."

Only she knows the "Code Word" to collect the cash at the merchant.

Result: 40% decrease in reported "extortion" incidents at the camp level.

7: Practical Exercise – The "Security Audit"

Objective: Identify the "Weakest Link" in a digital program.

Activity (60 Mins):

- Step 1: Give each group a "Beneficiary Persona" (e.g., Halima, 60, illiterate; or Ahmed, 19, IDP youth).
- Step 2: Walk through a "Digital Day." How do they get the message? Who sees the phone? Where do they keep the PIN?
- Step 3: Groups must identify three "Leakage Points" where the beneficiary could be scammed or harassed.
- Step 4: Groups present one "Low-Tech" fix (e.g., a sticker on the phone with the NGO hotline).

8: Unit Summary & Safeguarding Checklist

- **Consent:** Did the user agree to have their data stored digitally?
- **Privacy:** Can the user withdraw their money without a third party seeing their PIN?
- **Accountability:** Is there a clear, free way for a user to report a digital scam?
- **Inclusion:** Are we providing "Digital Buddies" (trusted volunteers) for those with disabilities?

UNIT
06

MOBILE-BASED DATA COLLECTION AND REPORTING

Context: Somalia (hard-to-reach, low-connectivity, mobile-first environments)

Target Audience:

MEAL officers, programme staff, youth enumerators, community volunteers, women-led CSOs

Training Style:

Hands-on • Visual • Practice-oriented • Offline-friendly • Quality-focused

Learning Outcomes

By the end of this unit, participants will be able to:

- Use mobile-based data collection tools confidently
- Select appropriate tools for low-connectivity settings
- Improve data quality, accuracy, and timeliness
- Apply mobile reporting in hard-to-reach areas

1: Introduction – Why Mobile Data Collection MattersKey Message

In Somalia, mobile data collection allows NGOs to monitor services quickly and safely, even in remote and insecure locations.

Common Challenges with Paper Systems

- Delayed reporting
- Data loss or damage
- High error rates
- Limited real-time monitoring

Benefits of Mobile Data Collection

- Faster data entry
- Built-in checks reduce errors
- Offline data collection
- Easier analysis and reporting

Facilitator Note:

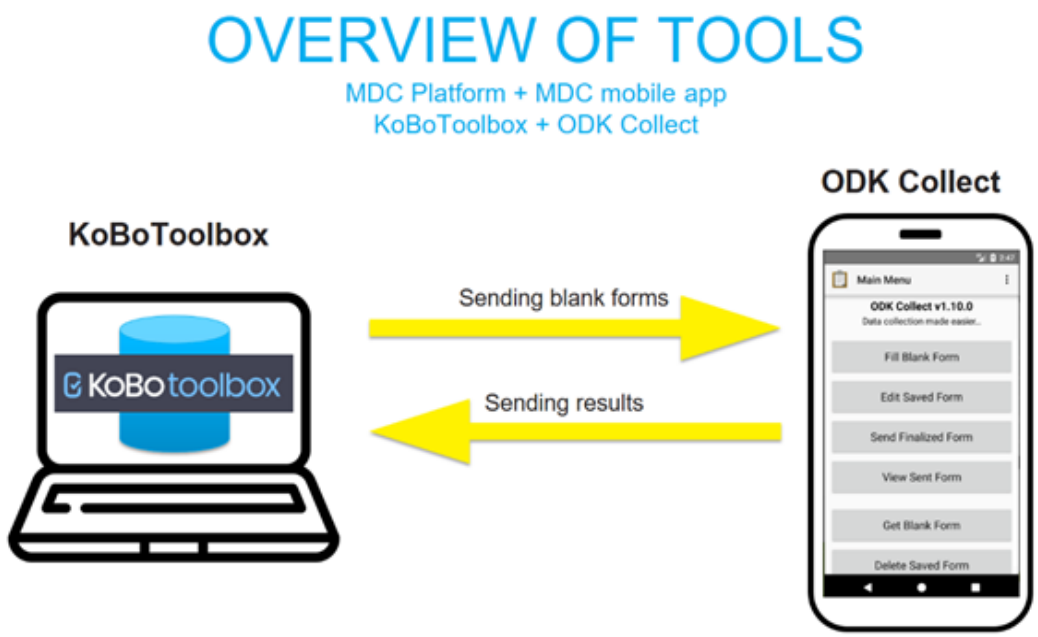
Mobile tools support better decisions, not just faster data.

Overview of Key Mobile Data Tools

Selecting the right tool is the first step toward effective digitalization. In Somalia, where internet access varies wildly between urban centers and rural plains, your choice must be dictated by connectivity, staff skill levels, and the specific purpose of the data.

1. KoboToolbox

Best for: Humanitarian data collection, offline surveys, and standard M&E.



KoboToolbox is the "gold standard" for the humanitarian sector. It was built specifically for NGOs working in challenging environments.

- **Works 100% Offline:** Field teams can collect hundreds of records in remote areas without a signal; the data is stored on the device and synced once they reach a town with Wi-Fi or 4G.
- **Cost-Effective:** It is free for non-profit organizations, with generous data storage limits.
- **User-Friendly:** The "drag-and-drop" form builder allows non-technical staff to design complex surveys in minutes.

2. ODK (Open Data Kit)

Best for: Advanced data collection, high-precision GPS mapping, and large-scale longitudinal surveys.

ODK is the powerful engine that many other tools (including Kobo) are built upon. It is preferred for professional data scientists and large-scale census-style operations.

- **Granular Validation:** It allows for "Strong Validation Rules"—for example, preventing an entry if a beneficiary's age doesn't match their birth year.
- **Media & Geospatial Power:** Superior handling of high-resolution photos, signatures, and precise GPS "polygons" (mapping the exact perimeter of a farm or IDP camp).
- **Extreme Flexibility:** Highly customizable for organizations with in-house IT teams who want to manage their own servers.

3. SMS-Based Reporting Systems

Best for: Very low connectivity, community feedback loops, and rapid alerts.

When there is no smartphone or 3G data, SMS is the most reliable digital bridge.

- **Universal Access:** Works on any mobile phone (even basic "Nokia" models), making it the most inclusive tool for elderly or rural beneficiaries.
- **Low Bandwidth:** A text message can often be sent even when a voice call fails due to a weak signal.
- **Automation:** Systems like FrontlineSMS or RapidPro can automatically categorize incoming texts into a database.

4: Data Quality & Timeliness

Digital tools do not just collect data; they guard it. Traditional paper forms often suffer from "garbage in, garbage out" (poor quality data leading to poor decisions). Mobile tools act as a filter.

How Mobile Tools Fix Quality Problems

- **Mandatory Fields:** You can set the form so it cannot be submitted if critical information (like a phone number or ID) is missing. This eliminates missing fields.
- **Skip Logic:** If a respondent says they are male, the app automatically hides questions about pregnancy. This makes the survey faster and eliminates irrelevant data.
- **GPS & Time Stamps:** The app automatically records where and when the survey took place. This prevents "armchair surveying" (where staff fill forms from the office instead of visiting the field).
- **Constraints:** You can set a rule that a "Family Size" cannot be more than 20, flagging incorrect entries immediately.

Tips for Timely Reporting

- **Offline Collection / Online Sync:** Never wait for the internet to start working. Train staff to work offline and treat "Syncing" as a daily ritual.
- **The "24-Hour Rule":** Encourage teams to sync data within 24 hours of collection. This allows managers to spot errors while the team is still in the area and can go back to verify.
- **Battery Management:** In Somalia, electricity is as important as connectivity. Always include solar power banks in field kits to ensure the "tools" don't die mid-survey.

KEY MESSAGE:

High-quality, timely data builds Accountability with donors and Trust with the communities we serve.

5: OPERATIONAL SCENARIO – SOMALIA CASE STUDY

Case Title

Monitoring Services in Hard-to-Reach Areas of South-Central Somalia

Scenario

An NGO monitors WASH services in remote villages with:

- No internet
- Infrequent access
- Security constraints

Solution Used

- KoboToolbox offline surveys
- GPS location capture
- Weekly data sync at district office
- SMS reporting for urgent issues

Results

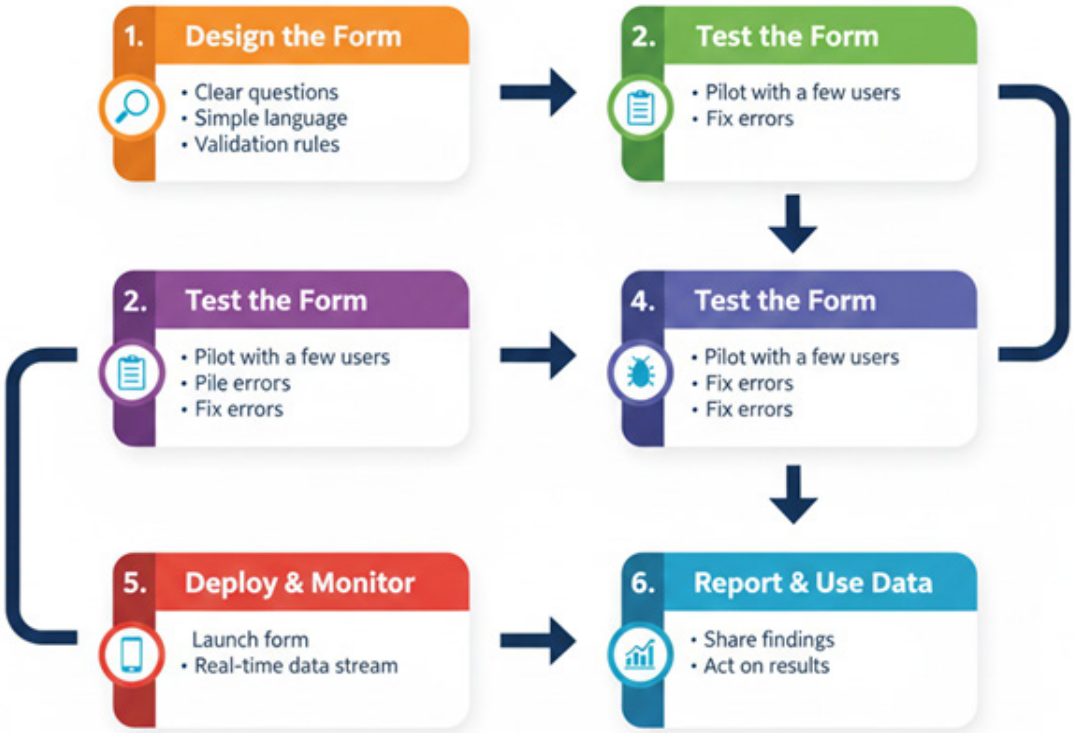
1. Timely monitoring data
2. Reduced travel for supervisors
3. Improved service response
4. Youth enumerators gained digital skills

Lesson Learned:

Offline-first tools are essential for hard-to-reach contexts.

6: Mobile Data Collection Workflow

Step-by-Step Process



7: Simulation – Mobile Data Collection Practice

Simulation Overview

Objective:

Practice using mobile tools to collect, sync, and review data.

Simulation Steps

Participants form small groups

Each group receives:

- A sample Kobo/ODK form
- A mock monitoring scenario

Groups:

- Conduct mock interviews
- Enter data offline
- Sync data (simulated)

- Illustration:

Participants practicing data collection in pairs

Debrief Questions

- What challenges did you face?
- How did offline mode help?
- How can data quality be improved?

Key Learning: Practice builds confidence and accuracy.

UNIT
07

ETHICAL USE OF TECHNOLOGY IN VULNERABLE COMMUNITIES

Training Style: Reflective • Value-Based • Scenario-Driven • Discussion-Oriented

The Core Philosophy

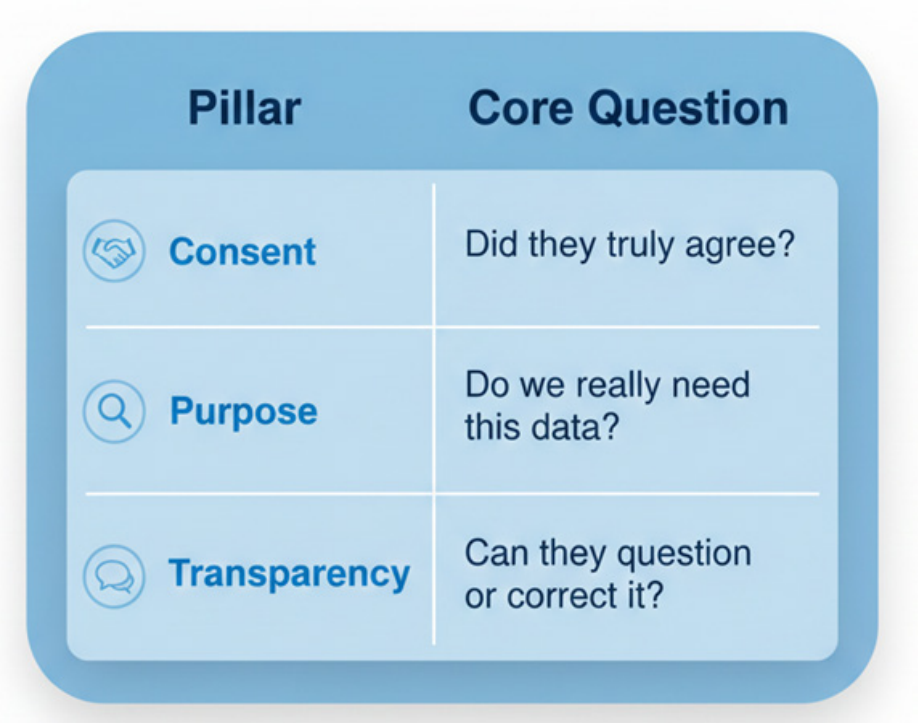
In the humanitarian sector, Information is Power. When a field officer stands in an IDP camp in Kismayo, Baidoa, or Dhusamareb with a tablet, there is an immediate power imbalance. The person being interviewed often views the device as the "gatekeeper" to their survival. Digital ethics is the discipline of ensuring that this power is used to protect the vulnerable, rather than to control or expose them.

Why Ethics Matter Specifically in Somalia

1. High-Stakes Targeting Risks: Somalia's complex social fabric means that data leakage isn't just a privacy breach—it's a physical threat. If a digital database identifying minority clans, female-headed households, or internally displaced persons (IDPs) falls into the wrong hands (such as local militias or extremist groups), it can be used as a "hit list" for taxation, forced recruitment, or targeted violence.
2. Preserving Human Dignity: Humanitarian aid should never feel like a "transaction" where the price is one's biometric identity. When we demand fingerprints or facial scans from a mother in exchange for a food voucher, we risk stripping away her agency. Ethics forces us to ask: Are we treating her as a human being or as a data point?
3. The Fragility of Trust: In many regions of Somalia, rumors spread faster than data. If a community perceives that their information is being shared with intelligence agencies or used to "track" them, they will stop participating in programs. Once this trust collapses, humanitarian access is lost, and the mission fails.

The Three Pillars Of Digital Ethics (Overview)

Pillar Framework



PILLAR 1 – Informed Consent (The "Right to Say No")

In many aid settings, there is an inherent power imbalance. If a person is hungry and you ask for their fingerprint, they may feel they must say yes to survive. Informed Consent seeks to break this pressure.

The Somali Context: Consent must be a meaningful conversation, not a signature on a page they can't read.

- **Language:** Use Af-Soomaali or local dialects.
- **Demystify:** Replace "cloud server" with "a locked digital box that only our team can open."
- **The No-Penalty Rule:** This is the ultimate test of ethics. If a beneficiary refuses a digital requirement (like a photo), they must still receive the aid via an alternative verification method.

PILLAR 2 – Purpose Limitation (The "Need-to-Know" Principle)

In the digital age, it is tempting to collect every data point possible. However, every piece of data is a liability. If you don't have it, it can't be stolen, leaked, or misused.

- **The Ethical Test:** Before adding a field to your Kobo form, ask: "If I do NOT collect this, can I still deliver the service?"
- **Clan Data:** In many parts of Somalia, clan information is highly sensitive. Unless it is strictly required for conflict-sensitive targeting, it should be excluded to prevent the data from being used for discrimination later.
- **"Just in Case" Data:** Collecting extra data "for the future" is a violation of ethics. Only collect what is needed for the current project.

PILLAR 3 – Accountability & Transparency

Transparency is about shifting power back to the community. People should not feel like "subjects" of a data collection exercise, but owners of their own information.

Practical Actions:

- **The Right to Correct:** If a beneficiary's phone number changes, they must have a clear pathway—like a help desk or hotline—to update their records so they don't miss a cash transfer.
- **The Right to Know:** Explain exactly who sees the data. Does the donor see names, or just numbers? Does the government have access? Being honest builds long-term trust.

"Do No Harm" – The Digital Edition Technology is never neutral; it can create new risks even with the best intentions.

A. **Digital Surveillance:** In areas with active conflict, biometric data (fingerprints/iris scans) is terrifying for many. They fear this data could fall into the hands of armed groups or intelligence agencies, leading to forced recruitment or targeting.

B. **Exclusion by Design:** If a cash system only accepts Hormuud numbers, you are accidentally excluding IDPs or travelers who use Telesom or Golis. Your digital choice becomes a barrier to survival.

C. **The Digital Divide:** If the only way to complain is via WhatsApp, you have effectively silenced the poorest of the poor—those with "brick" phones or no literacy.

D. **Critical Rule:** Always provide a non-digital alternative. A suggestion box, a community focal point, or a face-to-face help desk ensures that technology remains an option, not a barrier.

Resolving Real-World Dilemmas (Scenarios) To make these values practical, we must test them against real field challenges.

Scenario A: The Biometric Pressure A donor requires 100% fingerprint enrollment for a cash project in an area where local elders are suspicious of "government tracking."

- Ethical Question: Do you prioritize the donor's requirement or the community's safety and trust?
- Reflective Discussion: How can we negotiate with donors to use "low-tech" verification (like community vouching) in high-risk zones?

Scenario B: The Accidental Leak A field staff member shares a photo of a signed beneficiary list on a public WhatsApp group to show "project progress."

- **Ethical Question:** What are the risks to the people whose names and phone numbers are now visible on the internet?
- **Action:** How do we build a "digital safety culture" where staff understand that a photo is a data breach?

Your Personal Ethical Checklist

Before you hit "Submit" on any digital form, run through this mental check:

- **Safety:** Could this data be used to hurt this person if it was leaked?
- **Necessity:** Do I really need this specific detail to provide the service?
- **Clarity:** Did the person understand why I am taking this information?
- **Alternatives:** If they say "no" to the digital tool, do I have a backup plan to help them?

Somalia Case Study – The Registration Dilemma

The "Smart" Registration in a Conflict Zone

Situation: An NGO introduced facial recognition to prevent double-dipping.

Ethical Crisis

- Elderly women felt it violated xishood (modesty)
- Rumors spread that images were shared with security actors
- Attendance dropped sharply

Ethical Pivot

- Facial recognition stopped
- Community-based validation introduced
- Town hall meeting held
- Live deletion of photos demonstrated

PRACTICAL EXERCISE – THE ETHICAL DILEMMA LAB

Scenario

A donor offers $500,000 USD but demands:

- Full GPS locations
- Phone numbers of every mother assisted

Group Tasks

1. Identify the Risk
- What happens if data is hacked?
- Who could be harmed?
2. Propose a Compromise
- Aggregated maps
- Anonymized IDs
- Third-party verification
3. The Pitch

Role-play explaining to the donor:

"Data protection is a humanitarian obligation, not a technical preference."

UNIT
08

DATA PROTECTION AND SECURITY IN FRAGILE CONTEXTS

Training Style: Technical • Practical • Security-Focused • Risk-Aware

Learning Outcomes

By the end of this unit, participants will be able to:

- Classify data based on Somali-specific sensitivity levels
- Implement secure storage for physical and digital records
- Apply strong password, encryption, and device security practices
- Execute safe data-sharing protocols with partners and donors
- Respond effectively to data loss or security incidents

The High Stakes of Data in Somalia

KEY MESSAGE:

In fragile contexts, data is a liability as much as an asset. Personal data must be protected with the same seriousness as physical cash or supplies.

Why Data Security Is Different in Somalia

1. Identification & Targeting Risks

Data revealing:

- clan affiliation
- political alignment
- displacement status
- receipt of aid from a specific NGO

can expose individuals to:

- intimidation
- "taxation"
- forced recruitment
- denial of movement

2. Device Theft

- Smartphones, tablets, and laptops are high-value targets
- The data inside is often more valuable than the device itself

3. Unsecured Networks

- Public Wi-Fi in hotels, cafés, or airports (Mogadishu, Garowe, Hargeisa)
- Vulnerable to man-in-the-middle attacks

Data Classification – What Needs Protection?

Not all data needs the same level of security.

Classify first — then protect accordingly.

Data Classification Table

Category	Type of Data	Security Requirement
Public	Flyers, press releases	No restriction
Internal	Staff schedules, meeting notes	Password protected
Sensitive	Budgets, staff IDs	Encrypted, restricted
Highly Sensitive	Benefliciary names, GPS, biometrics	Highest encryption, strict access

Facilitator Prompt:

"If this file fell at a checkpoint, what is the worst thing that could happen?"

Use the answer to decide the classification.

Four shields of increasing strength labeled Public → Highly Sensitive

Secure Storage & The "Zero-Trace" Principle

In a high-risk environment like Somalia, data is a liability as much as it is an asset. The "Zero-Trace" Principle dictates that data should exist only where it is absolutely necessary and for only as long as it is required. In the field, every digital or physical footprint left behind is a potential breadcrumb for those who might misuse that information.

1. Digital Storage: Cloud vs. Local

The goal is to move data off vulnerable field devices as quickly as possible and into secure, centralized environments.

Cloud Storage (The Preferred Path)

Using platforms like OneDrive, Google Workspace, or Kobo Servers is safer because the data is not physically "on" the laptop if it gets stolen. However, the cloud is only as secure as your front door.

- **Two-Factor Authentication (2FA):** This is mandatory. Even if a password is stolen, a hacker cannot enter without the code sent to your phone.
- **Role-Based Access:** Not everyone needs to see everything. Limit access so a data entry clerk only sees their specific forms, while a manager sees the full database.

Local Storage (The High-Risk Path)

Storing data on USB sticks or unencrypted laptops is like leaving a briefcase of cash on a bus. If local storage is unavoidable:

- **Encryption is Mandatory:** Use BitLocker (Windows) or FileVault (Mac). This "scrambles" the data so that even if a thief pulls the hard drive out, they cannot read it without your master key.

2. Physical Storage & The Shredder Rule

While we aim for digital solutions, paper still exists (registration books, signed manifests). These are high-risk targets.

- **The Locked Room Policy:** Sensitive paper records must be behind "double-locks" (a locked cabinet inside a locked room with restricted key access).
- **The Shredder Rule:** In Somalia, "trash" is often scavenged. A discarded beneficiary list can be found and sold. Any document containing PII (Personally Identifiable Information) must be cross-cut shredded. If a shredder isn't available, the paper must be burned under supervision.

3. Password Management & Device Security

The "123456" or "Somalia2026" password is a gift to hackers. We must shift from "Passwords" to "Passphrases."

- **Passphrases:** These are long strings of words that are easy for humans to remember but impossible for computers to guess.

Bad: P@ssw0rd1

Good: Geel*Badan*Muqdisho*2026!

- **Unique Credentials:** Never use your Facebook password for your Kobo account. If one is hacked, all are hacked.

Device Essentials:

- **Remote Wipe:** Every staff phone or tablet must have "Find My Device" or "Remote Wipe" enabled.
- **Auto-Lock:** Devices must lock themselves after 1 minute of inactivity.
- **Critical Rule:** If a device is lost or stolen in the field, you must report it within 30 minutes. We must assume data is exposed until we can confirm the device has been remotely wiped.

4. Data Sharing Protocols

"Just because they ask, doesn't mean they get it." Whether it's a donor, a government official, or a partner NGO, data sharing must be a controlled process.

The Three Steps to Safe Sharing

1. **Anonymization (The Mask):** Before sending a file, "strip" the data. Remove names, exact GPS coordinates, and phone numbers. Replace them with Unique IDs (e.g., SOM-001).
2. **Data Sharing Agreement (DSA):** Never share data without a signed contract. The DSA must state that the receiver cannot share the data with anyone else and must delete it after a set time.
3. **Secure Transfer:** Never email a raw Excel sheet. Email is like a postcard—anyone can read it along the way. Instead:

   - Send a password-protected ZIP file (share the password via a different app, like Signal or WhatsApp).

   - Send a secure cloud link that expires after 24 hours.

5. Summary Checklist for Field Staff

A. [ ] Is my laptop/tablet encrypted?

B. [ ] Did I sync my Kobo forms and delete them from the device today?

C. [ ] Is my physical registration book locked in the office safe?

D. [ ] Do I have 2FA enabled on my email?

Case Study: The Galkayo Data Breach

Location: Galkayo, Somalia/ Incident: Physical Theft of Field Hardware

The Scenario: A field enumerator was conducting household surveys in a high-density area of Galkayo. After completing several interviews, the tablet was stolen from their possession. Because the device was not properly secured, the theft of the "hardware" instantly became a theft of "identity."

Critical Vulnerabilities (The "Red Flags")

- **The "Open Door" Policy:** The device had no active screen lock (PIN, Pattern, or Password), allowing the thief immediate access to all apps.
- **Active Sessions:** The KoboCollect app was logged in, providing a direct view of the day's work.
- **Localized Sensitive Data:** Names, phone numbers, and clan affiliations of dozens of vulnerable households were stored on the internal memory rather than being synced and cleared.

The Impact: High-Level Risk

This was more than a lost tablet; it was a security threat to the community.

- **Direct Exposure:** The personal details of IDPs and vulnerable families were now in the hands of unknown actors.
- **Targeting & Extortion:** In the local context, clan-specific data can be used by militias or groups for targeted "taxation," harassment, or worse.

Crisis Response & Mitigation

The organization's "Digital First Responders" took immediate action to "kill" the data before it could be exploited:

- **Remote Destruction:** A "Remote Wipe" command was issued, erasing the tablet's entire memory the moment it touched a network.
- **Credential Reset:** The central Kobo server password was changed to prevent the stolen device from "pulling" more data down from the cloud.
- **Formal Reporting:** An incident report was filed to notify the protection team of a potential data leak.

The "New Normal": Institutional Policy Changes

The organization realized they couldn't rely on staff memory; they needed automated security.

- **The 2-Hour Sync Rule:** Data must be uploaded every two hours. If a device is stolen, only two hours of data is at risk, not a whole day's worth.
- **Zero-Trace Settings:** Tablets are now set to "Delete Form After Send." Once the data is safe in the cloud, it is automatically wiped from the tablet.
- **Daily Security Parades:** Supervisors must check devices every morning to ensure screen locks are active and software is updated.

The Final Lesson

Security failures are system failures, not individual mistakes. If a staff member forgets to lock a phone, it is the organization's responsibility to have a system (like mandatory encryption or auto-wipe) that protects the community anyway.

PRACTICAL EXERCISE – DATA PROTECTION CHECKLIST

Duration: 30 Minutes

Objective: Create a localized Data Safety Checklist

Group Task

Develop a 10-point checklist for your office or project.

Example Items

☐ Is my device encrypted?

☐ Have I deleted old beneficiary data?

☐ Is 2FA enabled?

☐ Am I using public Wi-Fi safely or with VPN?

☐ Do I know who to contact if my device is lost?

UNIT
09

DIGITAL CROWDFUNDING AND SOMALI DIASPORA ENGAGEMENT

Context: Somalia | Style: Collaborative, Growth-Oriented & Visionary

Learning Outcomes

By the end of this unit, participants will be able to:

- Navigate specific crowdfunding platforms like Bulshokaab and Tarmiye.
- Build Trust with the diaspora through "Proof of Impact" digital storytelling.
- Design a "Social-for-Change" campaign that balances local needs with diaspora interests.
- Maintain 100% financial transparency using digital dashboards and bank-linked systems.

1: What is Digital Crowdfunding?

KEY MESSAGE:

Crowdfunding is the digital evolution of the traditional Somali Hagbad or Aaur (community pooling). Instead of just local neighbors, your "crowd" is now the millions of Somalis living in London, Minneapolis, Dubai, and beyond.

Why Digital Crowdfunding Works for Somalia:

- **Resource Matching:** Many platforms (like SomReP's Bulshokaab) match every $1 diaspora dollar with $1 or $2 of institutional funding.
- **Direct Impact:** It cuts out the "middleman," allowing a youth group in Garowe to speak directly to a donor in Toronto.
- **Democratizing Finance: I**t provides capital to women and youth who might be rejected for traditional bank loans due to lack of collateral.

2: Transparency – The "Trust Currency"

In the diaspora, trust is hard-earned and easily lost. ### The Pillars of a Transparent Campaign:

- **The "Live" Dashboard:** Use platforms that show total funds raised in real-time. Donors want to see their names (or "Anonymous") and the progress bar move.
- **Visual Proof:** Before/After photos are non-negotiable. If you are building a fence for a village school, the diaspora needs to see the bricks being laid.
- **Financial Integrity:** Funds should be deposited into Community-Managed Bank Accounts with multi-signatory oversight (usually an NGO, a community elder, and a youth leader).
- **Facilitator Note:** Remind participants that one bad campaign (where funds go missing) can ruin the reputation of all youth-led initiatives in that region.

3: Diaspora Engagement Strategies

The Somali diaspora doesn't just want to give "charity"; they want to see Sustainable Change and Partnership.

How to Engage Them:

1. **Localized Messaging**: Use the Af-Soomaali dialect of their home region to build an emotional connection.
2. **Celebrate the "Homegrown":** Highlight that the project was designed by locals.
3. **The "Liaison" Model:** Identify "Diaspora Champions"—influential people in the US or Europe who can vouch for your project to their networks.

4: Case Study – Somalia Youth Climate Platform (SYCP)

The Project: Youth-led climate resilience. The Challenge: Severe drought in rural Hirshabelle made traditional farming impossible. Youth needed funds for solar-powered irrigation.

The Campaign:

- **Tool:** Used digital storytelling via WhatsApp and a matching fund platform.
- **Strategy:** They didn't just ask for "money for food." They pitched a "Green Future"—solar panels that would last 10 years.
- **Result:** Over 500 participants (35% women) mobilized. Diaspora members from 5 countries contributed, seeing the project as a way to "Climate-Proof" their ancestral lands.

5: Case Study – Tarmiye Fund & Women Entrepreneurs

Focus: Youth and Women-led Small Businesses. The Innovation: The Tarmiye Fund (by Shaqodoon & Premier Bank) allows entrepreneurs to raise a portion of their capital via crowdfunding; once they hit their goal, the bank provides a Sharia-compliant loan/grant to complete the budget.

Lesson: Crowdfunding provides the "social proof" that a business is viable. If 50 people in the community believe in a woman's tailor shop, the bank is more likely to trust her too.

PRACTICAL EXERCISE – CAMPAIGN DESIGN

The Task: Your group is a "Youth Climate Committee." You need $5,000 to plant 1,000 trees and install a water tank in your district.

Step 1: The Hook. Write a 3-sentence "Emotional Pitch."

Step 2: The Transparency Plan. How will you show the diaspora the trees are actually growing in 6 months?

Step 3: The Call to Action. Which platform will you use (Bulshokaab, GoFundMe, or local USSD)?

Step 4: The Presentation. Pitch your campaign to the "Diaspora Jury" (the other participants).

UNIT
10

MONITORING, EVALUATION, AND LEARNING (MEL) FOR DIGITAL INTERVENTIONS

Learning Outcomes

By the end of this unit, participants will be able to:

- Design a Digital MEL Framework using SMART indicators for technology-based programs.
- Measure efficiency gains (time and cost) when using digital systems instead of paper.
- Track inclusion, especially for women and marginalized groups, in digital platforms.
- Apply Adaptive Management by using real-time data to adjust programs quickly.

1: Why Digital MEL Is Different

The Shift from Hindsight to Insight

The core difference lies in Velocity and Visibility. Traditional MEL is slow and static; Digital MEL is rapid and dynamic.

Main Advantages:

- Real-Time Dashboards: Instead of reading a 50-page PDF report next month, a manager in Mogadishu can look at a live map today to see which water points in Jubaland are functional and which are broken.
- Automated Data Integrity: In the paper days, a “missing age” or “duplicate ID” might not be found until the end of the month. Digital systems use Validation Logic to prevent the form from being submitted until the error is fixed.
- Granular Inclusion Tracking: Digital MEL allows for “Instant Disaggregation.” We can see in real-time if a cash program is accidentally favoring urban areas over rural ones, or if women are struggling to access the registration portal.

2: Key Indicators for Digital Success

To measure the success of a digital intervention, we must look beyond “how many people were reached.” We need to measure how the technology itself performed.

Category	Sample SMART Indicator	Why It Matters in Somalia
Efficiency	% reduction in 'Time-tc-Transfer' (from registration to cash in hand)	During sudden flods or droughts, a delay of 3 days vs. 10 days is a matter of survival.
Inclusion	Ratio of female-to-male users accessing the digital feedback hottine help-desk intervention	Prevents the "Digital Divide" from making women's voices invisible in a matter of for te local context.
Trust	% of digital complaints resolved and closend closed within a 48-hour window	If we ask for digital feedback but never reply, we destroy community trust in the system.

3: The "Learning" in MEL (Adaptive Management)

"Data has no value unless it leads to action." The 'L' in MEL is the most critical part of the digital loop. This is known as Adaptive Management.

Closing the Loop

In a digital system, the "Learning Loop" is much shorter.

4: Measuring the "Return on Investment" (ROI)

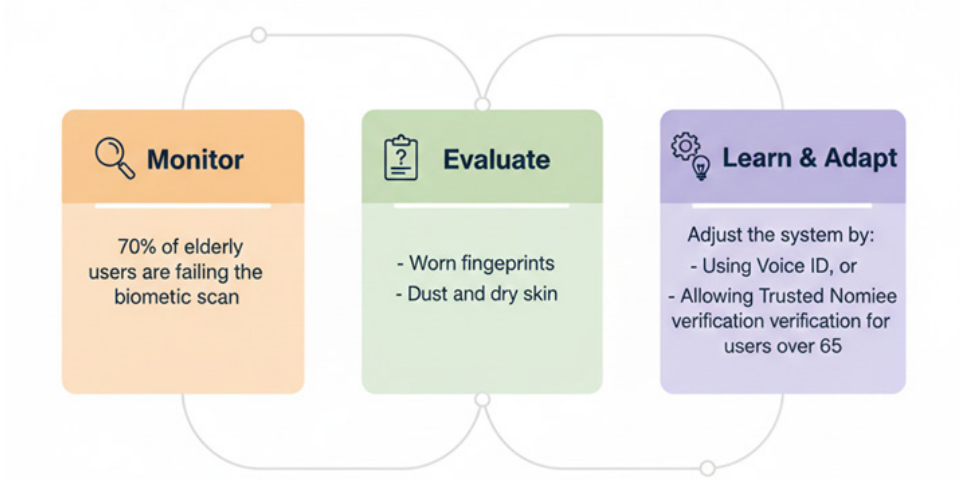
Digital systems require an initial investment in tablets, training, and software. To justify this to donors and stakeholders, Digital MEL must track Efficiency Gains:

- Cost Savings: Compare the cost of printing, transporting, and manually entering 5,000 paper surveys vs. one digital deployment.
- Accuracy Gains: Compare the "Error Rate" of paper forms (ineligible writing, lost pages) vs. the clean data of a digital system.
- Security Gains: Measure the reduction in "Data Exposure" incidents when moving from physical books to encrypted cloud storage.

KEY MESSAGE:

Digital MEL isn't about counting people; it's about improving the way we serve them through evidence and agility

The 3-Step Learning Loop



4: Case Study – Real-Time WASH Monitoring

Context

2025 drought response in Mudug region

Intervention

Solar-powered boreholes with digital sensors

MEL in Action

- Tool:

Sensors sent SMS alerts when water flow dropped.

- Data Insight:

Dashboard showed 3 remote boreholes failing every Friday.

- Learning:

Youth volunteers found solar panels were covered in dust from passing livestock.

- Adaptive Response:

NGO trained local youth as Solar Maintenance Teams to clean panels every Thursday evening.

Outcome

- 30% increase in water availability
- No additional NGO staff visits required

5: Field Practical – Digital MEL Framework Design

Method: Group Strategy Session

Scenario

Your NGO launches a Youth Digital Skills Program.

500 youth receive tablets for online learning.

Group Tasks

Select 3 Indicators

- Attendance rate
- Digital skill test scores
- Tablet damage or loss rate

Choose the Data Collection Tool

- Kobo surveys
- App usage logs
- WhatsApp check-ins

Identify Key Risks

- What if youth sell the tablets?
- How will the MEL system detect this early?

Plan the Adaptive Action

If data shows girls drop out after Week 2:

What immediate change will you make?

(e.g., mentorship, safe learning spaces, adjusted schedules)

UNIT
11

DESK REVIEW – LHP GAPS & OPPORTUNITIES

Context – Digitization in Somali Humanitarian Operations

Somalia operates in a fragile, high-risk, and resource-constrained environment, which strongly shapes digital adoption.

This unit provides a strategic "reality check" on the current state of Digital Transformation for Local Humanitarian Partners (LHPs) in Somalia. By identifying where the systems are breaking down (Gaps) and where the environment is naturally strong (Opportunities), organizations can build a roadmap that is both realistic and ambitious.

1: The Somali Context – Digital Realities

Somalia presents a unique paradox: it possesses one of the most advanced mobile money ecosystems in the world, yet humanitarian digital systems often remain fragile.

The Implication for LHPs:

For technology to survive here, it cannot be "imported" without adaptation. It must be Simple, Secure, and Transferable. In an environment of high staff turnover and shifting frontlines, the system must be stronger than the individual.

- Desk Review Insight: Technology must work within Somalia's realities, not against them.

2: Analyzing the Gaps (The Roadblocks)

Gap 1: The Digital Literacy Divide

There is a significant disconnect between the "Tools" available and the "Talent" using them.

- **The Risk:** When senior management doesn't understand analytics, they cannot make data-driven decisions. When field staff struggle with tablets, they revert to paper, creating "shadow systems."
- **Root Cause:** Learning is often informal and "ad-hoc" rather than a core part of staff development.

Gap 2: Vulnerable Data Protection

Speed often comes at the expense of security. Shared passwords and lack of encryption are common.

> **The Risk:** In Somalia, a data leak isn't just a fine—it's a threat to life. If sensitive beneficiary lists are exposed, it undermines the "Do No Harm" principle.

Gap 3: The "Security Blanket" of Paper

Many organizations suffer from "Digital Duplication"—doing the work on a tablet but keeping a paper copy "just in case."

- **The Risk:** This doubles the workload, increases the chance of errors, and slows down reporting.
- **Root Cause:** A lack of trust in digital backups and fear of donor audits that still prioritize physical signatures.

Gap 4: Institutional Memory Loss

When a tech-savvy staff member leaves, the "knowledge" often leaves with them because adaptations aren't documented.

The Risk: The organization repeats the same technical mistakes project after project.

3: Strategic Opportunities (The Accelerators)

Somalia offers unique advantages that LHPs can leverage to leapfrog traditional development stages.

4: Strategic Direction for LHPs

Effective transformation requires moving away from "buying gadgets" and toward "building systems."

- **Invest in People:** Standardize digital competencies for every role.
- **Security by Default:** Move away from shared logins and implement encryption as a non-negotiable standard.
- **Phase Out Paper:** Build confidence in cloud backups and digital signatures so that paper becomes the exception, not the rule.
- **Document Everything:** Create a "Digital Knowledge Hub" where lessons learned in Galkayo can help a team in Kismayo.

Closing Reflection: Somali humanitarian organizations do not lack technology—they lack structured, secure, and documented digital systems. The goal of the next phase is to turn these "pockets of innovation" into a standardized way of working.

UNIT
12

ACTION PLANNING AND APPLICATION

Purpose: Translate digital learning into practical, ethical, and context-appropriate action

Overview – From Learning to Action

Most digital initiatives fail because they focus on "Gadgets" rather than "Governance." Unit 12 forces a shift from knowing to doing. Participants will not leave with a vague idea; they will leave with a Digital Action Plan tailored to their specific operational zone—be it an IDP camp in Baidoa or a rural clinic in Galmudug.

The Action Plan Core Pillars:

1. **Process:** What specific task are we improving?
2. **Safeguarding:** How are we protecting the people behind the data?
3. **Measurement:** How do we prove it actually worked?

- **Key Principle:** Digital transformation must be ethical, inclusive, and conflict-sensitive. If it makes work faster but makes people less safe, it is a failure.

2: Final Exercise – The Action Planning Framework

Participants will work in clusters (MEL, Program, and ICT) to design a 3–6 month roadmap.

The Selection Criteria (The "Realistic" Check):

- Does it use existing local resources?
- Does it solve a recurring "pain point" (e.g., slow payments or messy data)?
- Does it increase inclusion for marginalized groups?

3: Component 1 – Selecting One Digital Process

Instead of overhauling an entire NGO's infrastructure, we focus on a single workflow.

Common Digital Shifts in Somalia:

- **Registration:** Moving from paper books to KoboCollect with GPS verification.
- **Payments:** Transitioning from cash-in-envelopes to Mobile Money (EVC/Sahal/Zaad).
- **Feedback:** Moving from physical suggestion boxes to an IVR or WhatsApp hotline.

Example Case:

- **Before:** Manual attendance sheets for a "Cash-for-Work" project in Kismayo (Slow, prone to ghost workers).
- **After:** Digital check-ins with photo verification (Fast, transparent, and audit-ready).

4: Component 2 – Defining One Safeguarding Measure

In Somalia, data protection is a protection issue. Digital systems must be "Secure by Design" to prevent surveillance or exclusion.

Safeguarding Action Examples:

- **Identity Protection:** Removing "Clan" fields from digital forms unless strictly required for conflict-sensitivity.
- **Gender Safety:** Ensuring that digital complaint desks are staffed by women to encourage reporting of sensitive issues like PSEA.
- **Access Equity:** Providing "Assisted Digital Entry" for the elderly who may have the right to aid but lack the literacy to use the app.

5: Component 3 – Developing One Digital M&E Indicator

We manage what we measure. Every action plan must include a Digital SMART Indicator.

Category	Sample Indicator	Goal
	Average days from data collection to report generation.	Reduce reporting lag by 50%
	Efficiency from data collection to report generation	Reduce reporting across genders
	Inclusion % of women reporting that digital tool was 'Easy' to use	Ensure 90% user satisfaction across genders
	Accuracy % digital records requiring manual correction after after sync.	Reach <5% error rate via aulionitad gap a low

6: Integrating Cross-Cutting Themes

I. Principles & Conflict Sensitivity

To maintain Neutrality and Impartiality, digital systems must be socially agnostic. We must proactively prevent a "digital divide" where those with high-end phones receive better service. In the Somali context, Conflict Sensitivity is paramount; we must ensure that the geographic deployment of digital tools does not mirror or exacerbate existing clan tensions.

II. Localization & Sustainability

A digital system is only as good as the local team's ability to fix it.

- **Localization:** Prioritize tools that work on the local GSM network and can be managed by Somalia ICT firms.
- **Sustainability:** Can the system survive without donor funding? By training Youth Volunteers as digital enumerators and data monitors, we move from being "service providers" to "capacity builders."

I. Integrating Cross-Cutting Themes in Action Plans

The successful deployment of digital tools in humanitarian contexts hinges on the seamless integration of Humanitarian Principles. To ensure Neutrality, systems must be designed to be politically and socially agnostic, ensuring no group is favored or marginalized by the algorithm or the interface. Impartiality requires that aid remains accessible based strictly on need; we must proactively prevent a "digital divide" where those with higher tech literacy receive better or faster service. Ultimately, the principle of Humanity dictates that technology is not an end in itself, but a vehicle to alleviate suffering and uphold human dignity.

Gender Equality, Inclusion, and Conflict Sensitivity

True inclusion demands a Universal Design approach. Digital tools must be accessible to women, the elderly, and persons with disabilities, often necessitating "assisted-tech" pathways to ensure no one is stigmatized for needing help. This is bolstered by tracking gender-disaggregated data to identify and bridge gaps in real-time. Furthermore, Conflict Sensitivity is paramount; in fragile environments, the simple act of collecting specific data—such as clan or ethnic identifiers—can unintentionally exacerbate local tensions. Digital action plans must include rigorous monitoring to ensure that geographic deployment or data collection methods do not create new risks or fuel existing grievances.

KEY MESSAGE:

Digital systems must be engineered to reduce harm and actively mitigate the risk of exclusion.

II. Localization and Sustainability

For digital initiatives to be truly effective, they must be rooted in:

- Localization. This means prioritizing locally available hardware and software and investing heavily in the capacity of local staff rather than relying on a revolving door of external consultants.
- Sustainability asks the hard questions: Can this system survive a funding cliff? Is there a local "Help Desk" or technical ecosystem to maintain it? By involving local youth and community members as digital enumerators or data quality monitors, we transition from being "service providers" to "capacity builders," fostering genuine Community Ownership.

III. Presentation, Peer Review, and Learning

The final stage of the action plan involves a collaborative:

Peer Review and Learning cycle. During group presentations, participants must defend their digital processes, safeguarding measures, and indicators against a "stress test" of critical questions: Is it realistic for the local infrastructure? Is it secure against data breaches? This phase is not merely about evaluation but about Learning Capture.

Facilitators document innovative safeguarding ideas and common risks to create a shared repository of local digital solutions. This collective intelligence ensures that every project contributes to a larger body of knowledge, making the humanitarian community more resilient and digitally savvy.

Presentation, Peer Review, and Learning

Group Presentation

Participants present:

- The digital process
- The safeguarding measure
- The indicator

Peer Review Questions

- Is it realistic?
- Is it inclusive?
- Is it secure?
- Does it align with humanitarian values?

Learning Capture

Facilitators document:

- Common risks identified
- Innovative safeguarding ideas
- Strong indicators

Learning Output: A shared repository of local digital solutions.

ANNEXES – FULL MODULE SUPPORT MATERIALS

Annex 1: Digital Glossary

Annex 2: Mobile Money SOP Checklist

Annex 3: Data Protection Templates (Consent form, assent forms)

Annex 4: Case Study Briefs

About This ToT Module

This Training of Trainers module on Digitization System and Digital Transformation for Somali Humanitarian Work is developed under the ToGETHER 2.0 Programme to strengthen the digital capacity of Local Humanitarian Partners.

It provides practical guidance on digital readiness, data protection, system improvement and low-connectivity solutions suitable for Somali operational contexts. Designed for PMWDO technical teams, MEAL officers, programme staff and trainers, the module supports cascade delivery and institutional strengthening.

Grounded in operational realities and aligned with accountability and safeguarding principles, it enables partners to improve efficiency, protect sensitive data and integrate digital systems into sustainable humanitarian programming.

Developed by: ABYAN Consulting