

2025 SIDS NDE Joint Programme

Key Enablers for System Transformation - Digitization

PRESENTER

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Climate Probity



Brief Introduction:

Albert Lihalakha

Principal Advisor & Managing Director

Climate Probity - Climate Probity promotes trustworthy climate action through strengthened governance, transparency, and institutional accountability.

Formerly Deputy Head & Interim Head of the Independent Integrity Unit (IIU) at the **Green Climate Fund (GCF)**.

20+ Years Global Experience Spans public and private sectors across Africa, Asia, the Middle East, and North America, including:

African Development Bank (AfDB): Principal Forensic Officer (Tunisia).

Saudi Aramco: Forensic Scientist/Investigator (Saudi Arabia).

KPMG: Manager, Risk Consulting Services (USA).

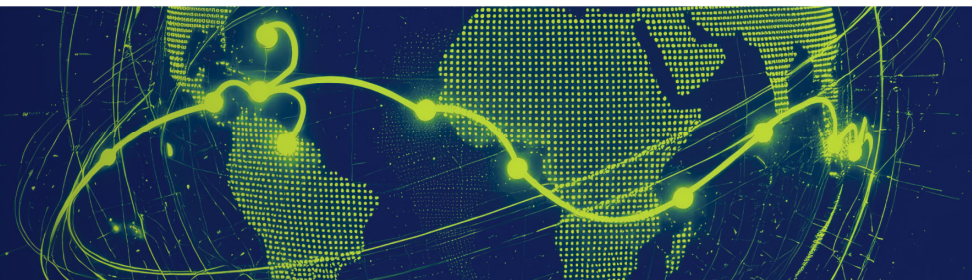
Credentials


Master's in International Criminal Law and Justice

MSc. in Information Systems

Certified Fraud Examiner (CFE)

Integrity Expert & Climate Tech Enthusiast





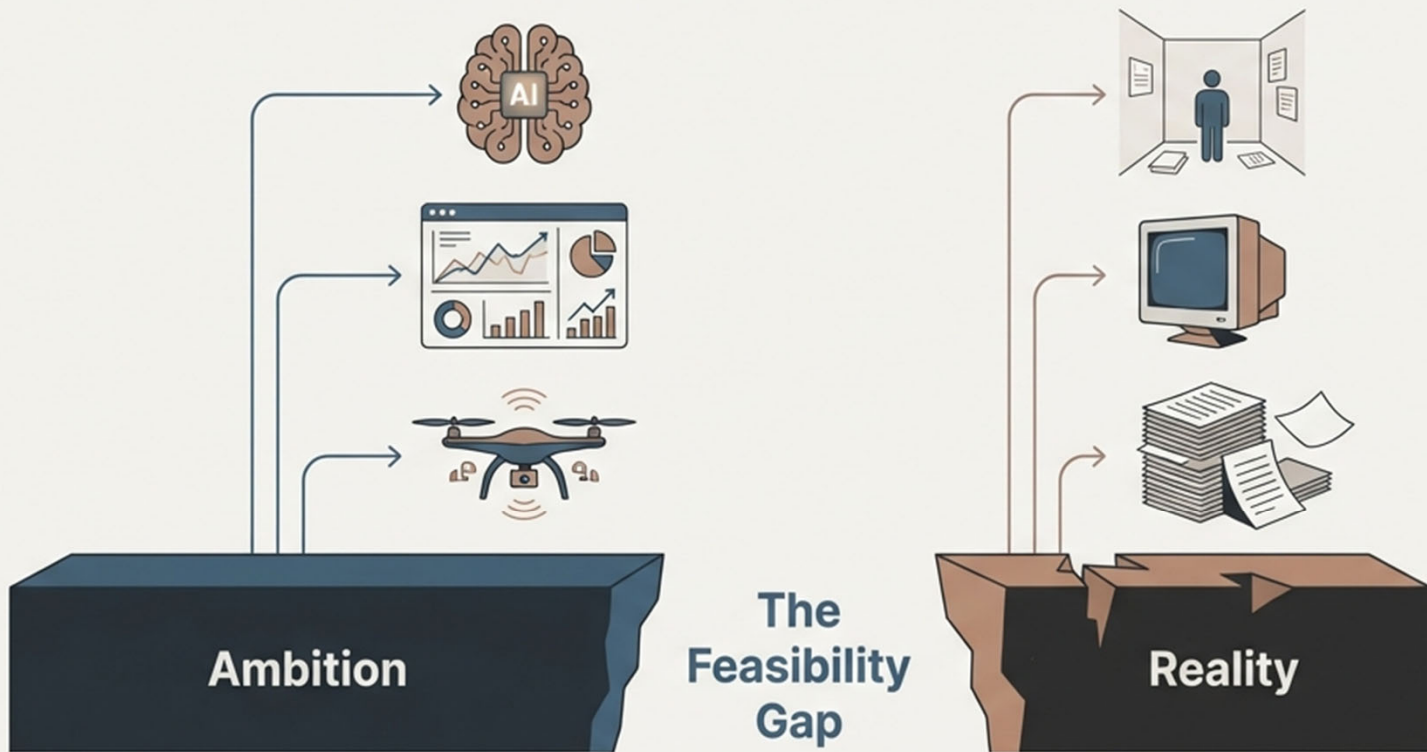
Digital Ambition Meets Administrative Scale

Navigating the Feasibility Gap in
Small Island Developing States



The Feasibility Gap: A Core Challenge for SIDS

For SIDS, the path to digital resilience is often a difficult balance. There is a persistent gap between the ambition for modern digital systems and the administrative scale required to sustain them.



- Thin staffing & institutional churn
- Fragmented, often donor-driven, digital tools
- Conflicting and inconsistent datasets
- Outdated foundational data like hazard maps
- Intense pressure for advanced climate reporting (e.g., NDC 3.0)

To Explore Real Challenges, We Use a Neutral Ground

Let's step into the fictional SIDS of Tomo'ai.



Population: 62,000



Geography: 7 islands



Administration: Thin; most ministries have fewer than 10 technical officers.

Rationale

Why a fictional case? Tomo'ai is a proxy for common SIDS challenges. It provides a shared, realistic reference point to spark practical discussion, but is fictional enough to avoid putting any actual country under scrutiny.

The Feasibility Gap: Digital Resilience in Small Island Nations

BEFORE THE STORM Pre-Existing Vulnerabilities

Critically Thin Staffing

Key agencies, like the meteorological office, are run by just one or two people.

Fragmented and Outdated Tools

Ministries rely on unstable hardware and conflicting, donor-funded digital dashboards.

Strong but Unofficial Community Intelligence

Local networks possess deep knowledge but are disconnected from formal government systems.

CYCLONE TA'ALO HITS A System in Crisis

⚠️ EVACUATE ↔ ⚠️ STAY PUT



Official Alerts Cause Confusion

Different ministries issue contradictory warnings from their separate, outdated systems.

Community Networks Move Faster

Warnings from local groups on WhatsApp circulate quicker than official government alerts.



Damage Reports Wildly Disagree

In the aftermath, official and unofficial sources report vastly different impact numbers.

THE AFTERMATH Facing Reality

Pressure Mounts for a Coherent Strategy

A development partner requests unified data to release funds, forcing a moment of truth.

Focus Shifts from "More Tools" to "Stronger Foundations"

The crisis forces questions about governance, data sharing, and realistic national capacity.



National Functions

Regional Support

The Path Forward: National vs. Regional

Tomo'ai must decide which digital functions it can lead and which require regional support.

A Storm Gathers as a Deadline Looms

The government is preparing its next Nationally Determined Contribution (NDC), which must include a digitalization component. Simultaneously, a tropical disturbance strengthens unexpectedly.

Tomo'ai's meteorological office has only two full-time staff. One is away on regional training.

From: Met Office

To: Disaster Management Ministry (DMM)

Subject: URGENT: Disturbance 91P

Disturbance 91P may escalate to Cyclone Ta'alo. Unable to update surge model, GIS workstation down again.

A Chorus of Conflicting Alerts



DMM

Issues an alert based on an 8-year-old hazard map.



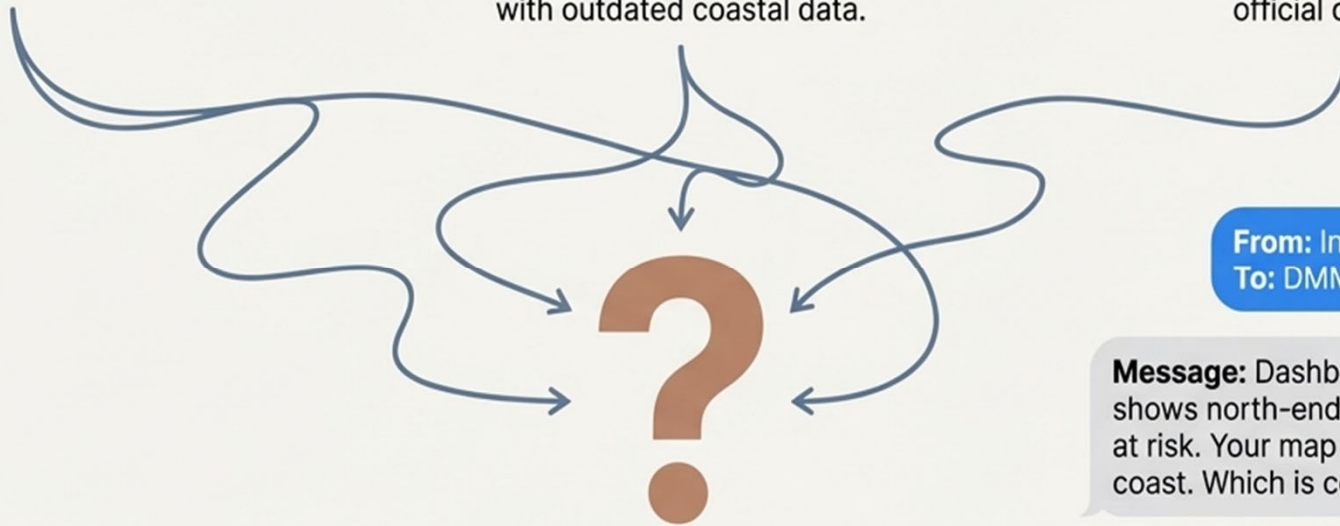
Ministry of Infrastructure

Shares a different alert from a donor-funded 'Resilience Dashboard' with outdated coastal data.



Community Networks

Fishers' cooperatives post warnings on WhatsApp, circulating faster than official channels.



From: Infrastructure Officer
To: DMM

Message: Dashboard shows north-end villages at risk. Your map says east coast. Which is correct?

TWO DAYS BEFORE NDC CONSULTATIONS...

AFTERNOON

Data An Arrives, But Capacity is Underwater



Key Point 1: The regional climate center processes accurate satellite rainfall estimates.



Key Point 2: This high-quality data is unusable. No one in the Tomo'ai government has the capacity to merge it with local observations.

Human Impact Story: "The lone GIS specialist is unable to assist. His home has flooded."

Three Systems, Three Realities

As ministries attempt to compile initial impact numbers, a clear picture is impossible. There is no single source of truth.

4,200

households affected

Source: DMM (based on district focal points & WhatsApp)

6,800

households affected

Source: Ministry of Infrastructure (using volunteer drone footage)

3,100

households affected

Source: Donor Dashboard (auto-generated from outdated models)

Innovation Fills the Gaps, But Can't Fix the Foundation



Community Intelligence

A youth climate group compiles photos and voice notes into a spreadsheet titled "Community Impacts – Unverified."

- Entries are detailed but inconsistent,
- using both English and Tomo'aian dialects.



Grassroots Tech

A volunteer tech group uses a simple machine-learning script to auto-classify photos ("flooded," "damaged," "blocked").

- A linguist suggests using a language model to summarize dialect voice notes.

These tools help, but only minimally: they rely on inconsistent inputs and cannot resolve contradictory datasets.



TWO DAYS LATER

The Critical Request Arrives

From: Development Partner

To: Ministry of Finance

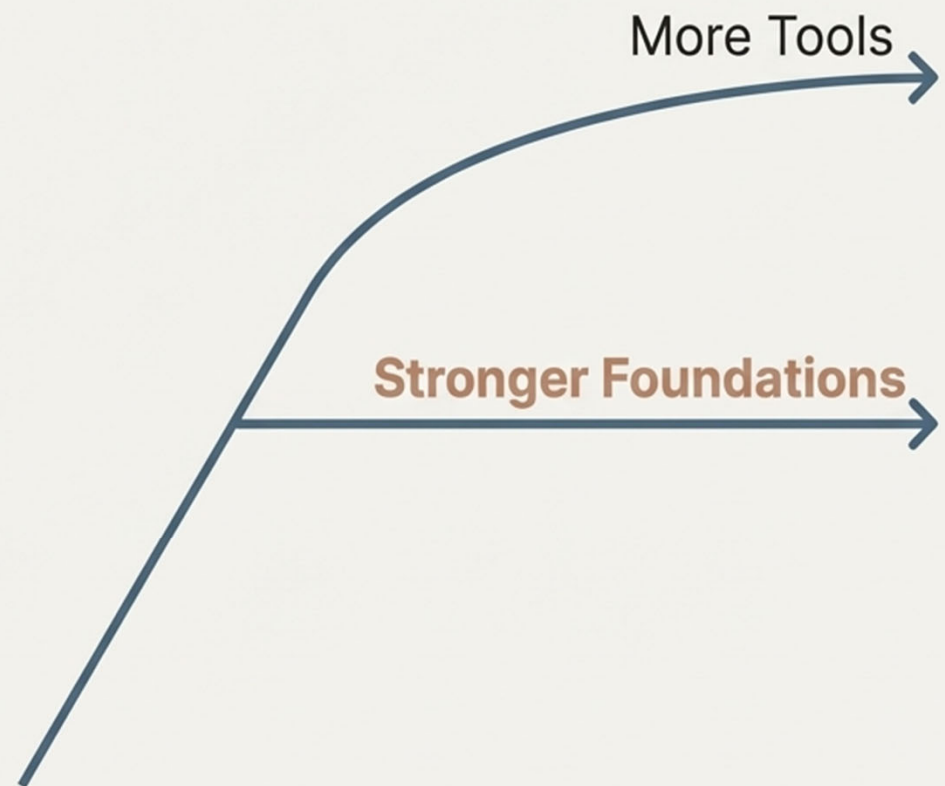
Subject: Emergency Adaptation Finance & NDC 3.0

To expedite emergency adaptation finance, we need consolidated, verified impact figures and an outline of Tomo'ai's digitalization approach for NDC 3.0.

The Internal Reckoning: From Crisis to Clarity

The Ministry of Finance forwards the request, forcing a government-wide conversation about what is truly feasible.

1. What digital functions can Tomo'ai sustainably **lead** at the national level?
2. Which functions should be managed or supported at the **regional** level?
3. What realistic digital commitments belong in our **NDC 3.0**?



OUR GUIDING QUESTIONS FOR DISCUSSION

Group 1: Foundations & Feasibility

Lens: Administrative scale, national vs. regional responsibilities, governance

1. What digital functions can Tomo'ai realistically **sustain** at the national level, given its scale? (Consider staffing, continuity, cost, governance.)
2. Which functions should be managed or supported at the **regional** level? (Think: data hosting, hazard modeling, DPI components.)
3. Where does Tomo'ai need stronger **governance** rather than more tools? (Data-sharing mandates, custodianship, verification.)
4. How should Tomo'ai define "**digital sovereignty**" in a way that fits its scale? (Avoiding vendor lock-in, open standards, community stewardship.)
5. If you could strengthen only **one foundational layer** first, what would it be? (Data governance? Interoperability? Staffing continuity?)

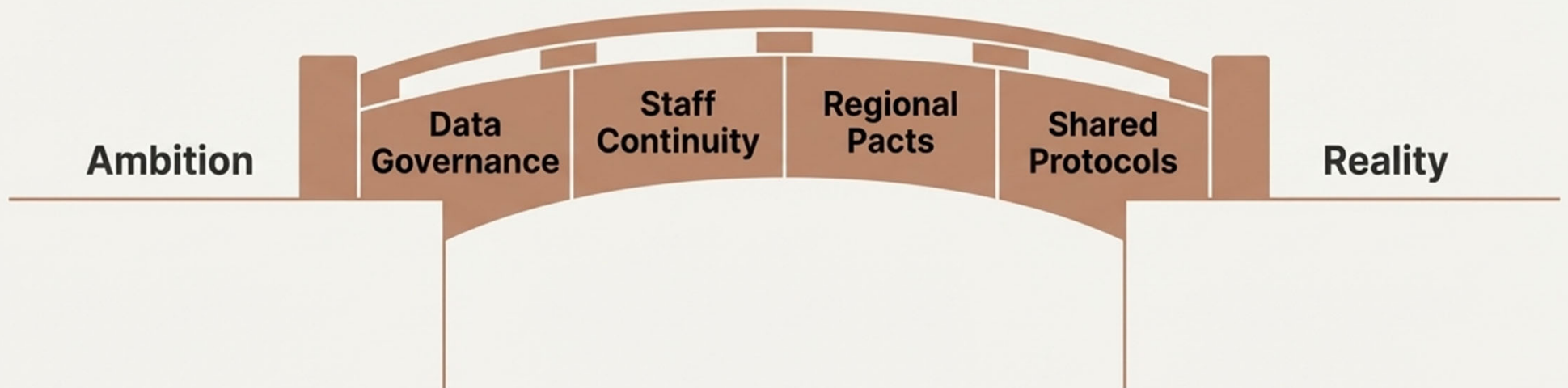
OUR GUIDING QUESTIONS FOR DISCUSSION

Group 2: Integration & Ambition

Lens: Fragmentation, Digital Public Infrastructure (DPI), NDC 3.0 realism

1. How can Tomo'ai reduce **fragmentation** across ministries and digital systems? (Think: shared protocols, consolidation, common registries.)
2. What are the first steps toward building sustainable, sovereign **Digital Public Infrastructure (DPI)**? (Identity, registry, data custodian roles.)
3. Which digital commitments in **NDC 3.0** would be both meaningful and realistic? (Be explicit about feasibility.)
4. How should **community-generated information and regional support** be integrated into national systems? (TK-science fusion, citizen data.)
5. Where could **simple, well-placed technologies** (including modest AI) add value, but only *after* foundational issues are addressed?

The Choice is Not *Which Tool*, But *What Foundation*



The story of Tomo'ai is a reminder that sustainable digital resilience is built from the ground up. Before we can leverage advanced tools, we must first invest in the governance, people, and infrastructure that make them viable. The most meaningful commitment is to build a foundation that lasts.