

# MaMA App

## (Mangrove Monitoring Application)

Community-generated data for  
biodiversity protection and ocean action



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## What is MaMA?

MaMA (Mangrove Monitoring Application) is a community-based monitoring (CBM) mobile app that enables local communities to collect, document, and share environmental data on coastal ecosystems—especially mangroves and marine biodiversity.

Developed and implemented in close collaboration with coastal communities in Zanzibar, the Zanzibar Climate Change Alliance (ZACCA) and Danmission, the app builds on ZACCA and Danmission's work to strengthen community resilience, climate adaptation, and local environmental governance in Zanzibar.

The app transforms local knowledge into credible, geo-referenced evidence that supports conservation, climate action, and policymaking.

## Why it matters

- Coastal ecosystems are under pressure from overuse, biodiversity loss, and climate change
- Governments often lack real-time, local data
- Communities are the first to observe environmental changes

Through ZACCA's network of community groups and local partners, MaMA ensures that monitoring efforts are locally anchored, community-driven, and aligned with ongoing climate and conservation initiatives in Zanzibar.

MaMA bridges the data gap by putting monitoring tools directly in the hands of communities—turning them into data producers and environmental stewards.

## How the app works

The MaMA app follows a simple, field-friendly workflow:

- Capture location (GPS)
- Take/upload photos
- Record audio observations (optional)
- Select category (guided decision tree)
- Add comments
- Upload data (online/offline supported)

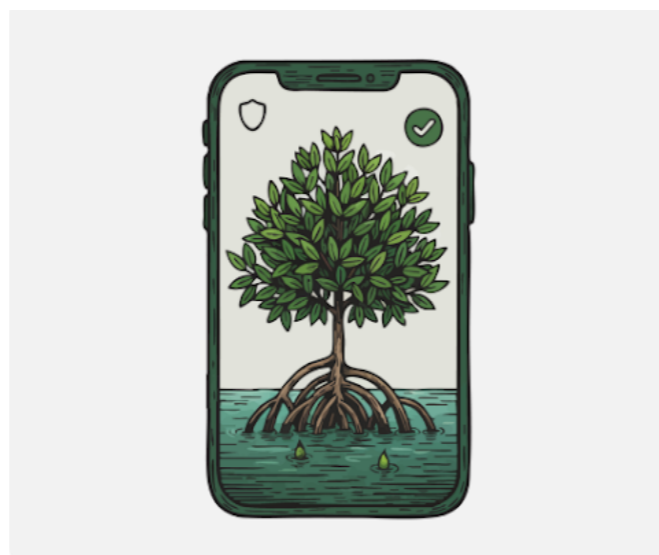
## Key monitoring categories

- **Activities / Threats**
  - Destruction (trees, corals, seeds)
  - Crops
  - Fishing
  - Illegal hunting
- **Resources / Biodiversity**
  - Animals
  - Plants
  - Marine biodiversity
  - Corals
- **Security / Risks**
  - Weapons
  - Other local risk indicators

This structured decision tree ensures consistent, comparable, and policy-relevant data collection while reflecting monitoring priorities identified by ZACCA and local communities.

## Key features

- ✓ Offline functionality for remote areas
- ✓ Photo, audio, and GPS evidence
- ✓ Simple interface (icons/audio) for low-literacy users
- ✓ Community-defined categories reflecting local priorities
- ✓ Secure and adaptable data collection



These features reflect best practices in CBM design and are shaped through ZACCA's participatory approach to community engagement and capacity building.

## What makes MaMA different

MaMA builds on global CBM experience, developed with the University of Copenhagen and applied across multiple countries, demonstrating both credibility and scalability, and embeds:

### 1. Community ownership

Coastal communities define what to monitor and how data is used, supported by ZACCA's facilitation, turning them into knowledge holders rather than just data collectors.

### 2. Credible, actionable data

Geo-referenced evidence improves transparency and strengthens engagement with authorities, with ZACCA helping to link data to local decision-making processes.

### 3. Empowerment & inclusion

Women and youth gain visibility and leadership roles through ZACCA-led community structures and training efforts.

### 4. A bridge to decision-making

Data supports advocacy, enforcement, and alignment with global biodiversity goals (e.g. KMGBF Targets 20–23). Coastal communities, supported by ZACCA and other civil society actors as well as religious leaders, can use the data to inform natural resource management and local governance decisions, thereby strengthening community-led environmental stewardships.

## Impact potential

MaMA contributes directly to:

- Biodiversity conservation
- Ocean and mangrove protection
- Evidence-based policy and reporting
- Inclusive, community-led governance
- Environmental accountability and enforcement

By combining the MaMA app with ZACCA's on-the-ground presence, communities gain greater agency, visibility, and influence in environmental governance.

## Why it matters now

Global frameworks, including the Kunming–Montreal Global Biodiversity Framework and IUCN Resolution 126, call for countries to:

- Support community-based monitoring systems
- Recognise community-generated data
- Ensure inclusive participation in decision-making

## A tool for global action

MaMA demonstrates how digital tools + local knowledge can:

- Close critical data gaps
- Strengthen community rights
- Inform national and global biodiversity reporting
- Scale nature-based solutions

Scan the barcode

to get the MaMA app ▶



## Join us

At the Our Ocean Conference in June 2026 in Mombasa, ZACCA and Danmission will showcase how the MaMA app can drive real-time, scalable, and inclusive environmental monitoring.

From observation to action - powered by communities, the Zanzibar Climate Change Alliance and Danmission.



<https://zacca.or.tz/>

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<https://danmission.dk/en/>



Thank for reading

