# Tawi

**Empowering Communities Through Gamified Conservation Learning**

**Team:** Karume

**Track:** Social Impact & Sustainability

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# The Challenges

## Urgent Forest Threats

Deforestation and climate change severely threaten forests, causing irreversible biodiversity loss.
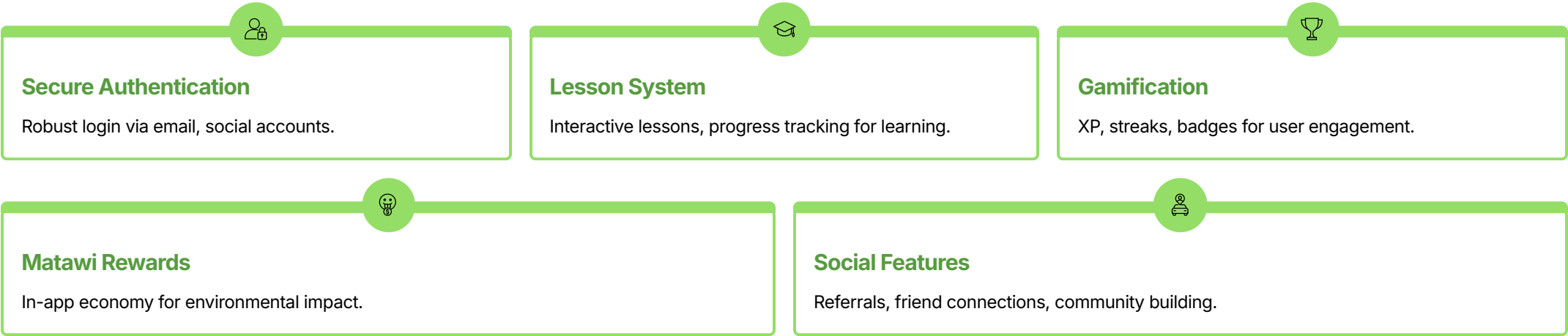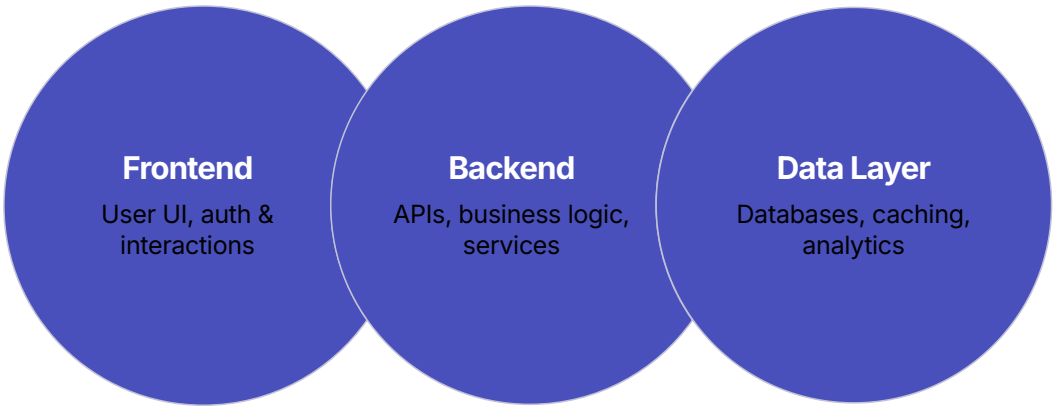
## Community Engagement Gaps

Slow monitoring and lack of localized data hinder conservation, limiting community participation.
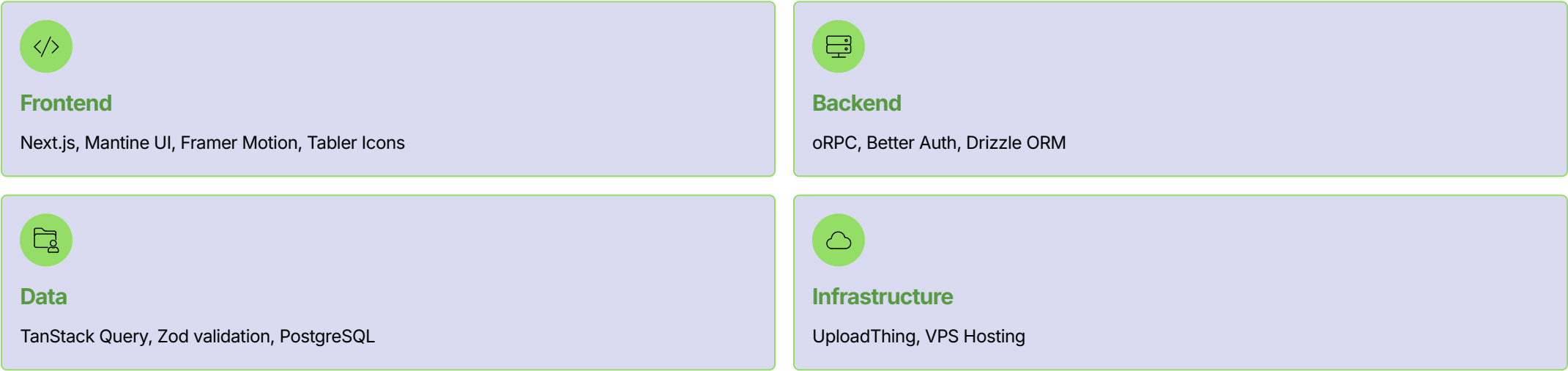
## Need for Accessible Tools

Accessible, engaging conservation tools are crucial to educate and involve diverse communities.

# Building Tawi: Technical Architecture

**Frontend**
User UI, auth & interactions

**Backend**
APIs, business logic, services

**Data Layer**
Databases, caching, analytics

**Secure Authentication**
Robust login via email, social accounts.

**Lesson System**
Interactive lessons, progress tracking for learning.

**Gamification**
XP, streaks, badges for user engagement.

**Matawi Rewards**
In-app economy for environmental impact.

**Social Features**
Referrals, friend connections, community building.

## Tech Stack Overview

**Frontend**
Next.js, Mantine UI, Framer Motion, Tabler Icons

**Backend**
oRPC, Better Auth, Drizzle ORM

**Data**
TanStack Query, Zod validation, PostgreSQL

**Infrastructure**
UploadThing, VPS Hosting

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# Impact & Path Forward

**Community Engagement**
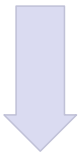
**Conservation Learning**

**Behavior Change**

**Global Scalability**
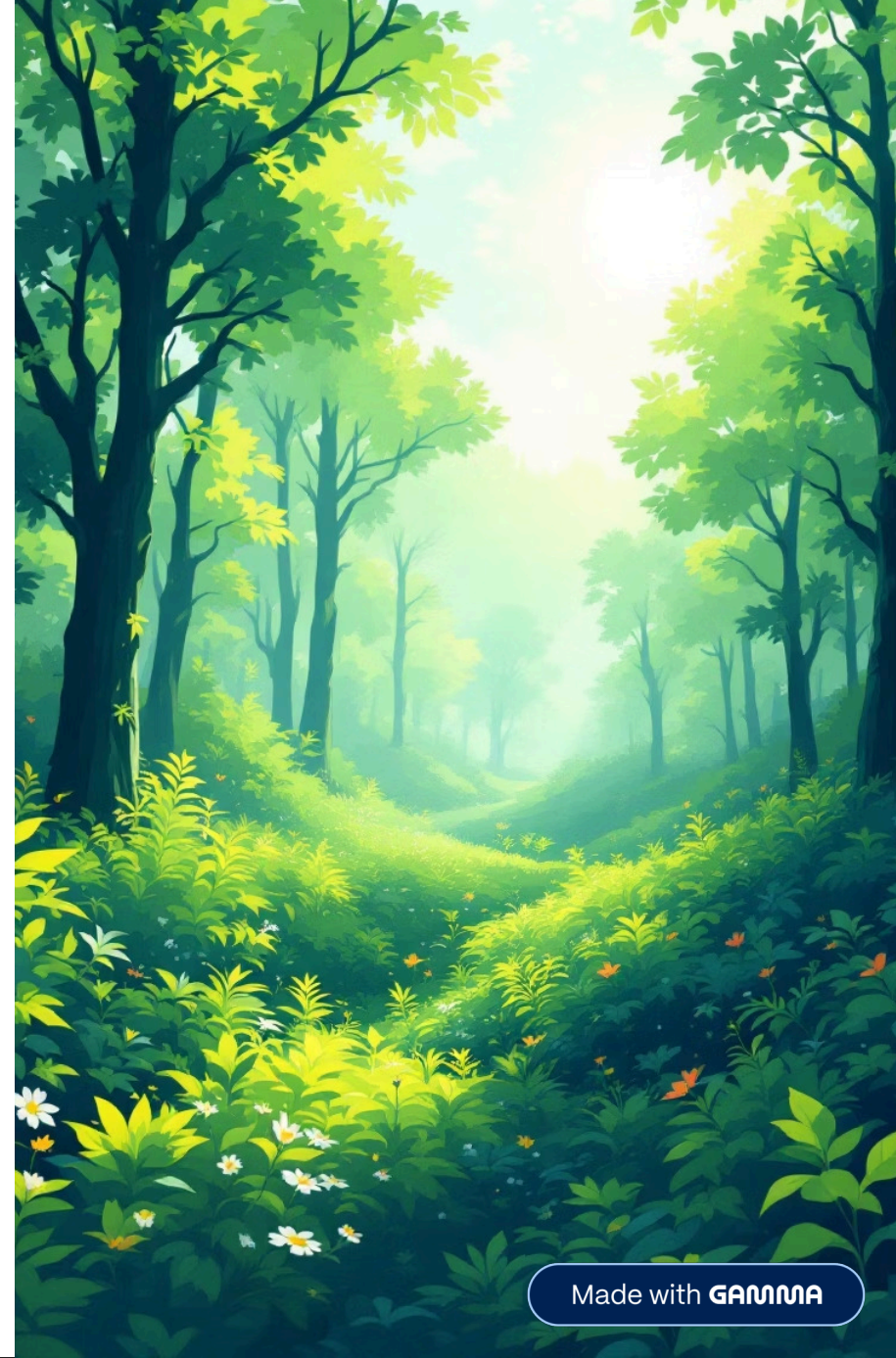
**Pilot Program Launch**

**Community Integration**

**Regional Scale-up**

- **Tree-Planting Challenges**
- **Data Collection**
- **Regional Expansion**

# Introducing Tawi

## A Gamified Learning Platform for Conservation

### Secure Access

Easy email/social login for broad accessibility.

### Interactive Learning

Engaging lessons, XP rewards for knowledge.

### Consistency Streaks

Rewarding streak system encourages daily engagement.

### Achievement Badges

Collectible badges recognize progress and milestones.

### Matawi Points

In-app currency to unlock content, features.

### Referral System

Incentivizes user invites, expands reach and impact.

### Community Building

Connects users to friends, conservation community.

### Smart Notifications

Timely alerts, reminders for engagement.

### Personal Dashboard

Track progress, achievements via customizable profile.