

# **PROPOSAL FOR REDESIGN AND MODERNIZATION OF KIBO SEED COMPANY LTD WEBSITE**

**Development of a Modern Website and Progressive Web App (PWA)**

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## PART I: TECHNICAL PROPOSAL

Proposal to Modernize & Redevelop Kibo Seed Company Ltd Website as a Progressive Web App (Light mobile application).

### 1. Introduction

Kibo Seed Company Ltd's existing website is functional but outdated in design, lacks interactivity, and misses critical features expected by modern users. This proposal outlines a comprehensive technical proposal to redesign and redevelop the website into a modern, fast, and responsive Progressive Web Application (PWA).

A special kind of modern websites to reflect on the needs and demands of the digital business era. Using modern technologies and features to serve and make the website of more advanced and outstanding corporate website.

Here is the proposal Accompanied with modern technologies such as PHP, Tailwind CSS, HTML5, and MySQL with PDO, delivering a seamless, engaging user experience and scalable digital platform within a 6-weeks timeframe.

### 2. Current Website Analysis & Identified Gaps

Aspect	Current State	Missing / Needs Improvement
Design & UI/UX	Basic, outdated layout; static elements	Modern, clean, mobile-first, visually appealing UI using Tailwind CSS
Responsiveness	Desktop-first with minimal mobile adaptation	Fully responsive and touch-optimized across devices
Performance	Moderate loading speed	Optimized for fast load times using PWA best practices
Interactivity	No dynamic or interactive features	Real-time product filtering, user account management, inquiry forms
Accessibility	Limited accessibility considerations	Compliance with WCAG standards for inclusivity
Content Structure	Static pages with minimal hierarchy	SEO-friendly structure with metadata, semantic HTML
User Engagement	No user accounts or personalized content	Farmer portal, inquiry system, newsletters
Social Media Integration	References but no active/social links	Embedded live social feeds and sharing options

Security	Basic security measures	Secure session management, input sanitization, HTTPS enforced
Backend System	Minimal backend functionality	Admin CMS for content, order inquiries, farmer management
Technology Stack	Unknown / basic	Modern PHP with PDO for secure DB access, Tailwind CSS for design, PWA architecture

### 3. Project Objectives

- Rebuild the website as a Progressive Web App (PWA) to enable offline capabilities, push notifications, and app-like experience on all devices.
- Deliver a modern, attractive, and highly usable interface aligned with global UX/UI standards.
- Implement responsive design optimized for all screen sizes and touch inputs.
- Develop a secure, modular backend using PHP with PDO and MySQL.
- Integrate a Farmer Portal for registration, support, and order inquiries.
- Include admin management tools to manage content, products, and inquiries efficiently.
- Optimize for SEO and accessibility compliance to improve visibility and inclusiveness.
- Complete project delivery within 4 weeks (1 month).

### 4. Scope of Work & Features

#### 4.1 Frontend Development

- Design:
  - Use Tailwind CSS to build a clean, consistent, and visually appealing UI with intuitive navigation.
  - Mobile-first, fully responsive layouts with smooth animations and transitions.
  - Accessibility: keyboard navigation, ARIA roles, contrast checks.
- Core Pages:
  - Homepage with hero banner, latest products, and calls-to-action.
  - Products Catalog with dynamic filters (crop type, region, season).
  - Detailed product pages with images and downloadable resources.
  - News/Blog section for updates and agricultural tips.
  - Contact page with interactive form and Google Maps integration.
  - Farmer Portal login and registration pages.

- Progressive Web App Features:
  - Offline caching using Service Workers.
  - Add to Home Screen functionality.
  - Push notifications for news and order updates.
  - Fast loading and smooth navigation.

## 4.2 Backend Development

### Technology:

- PHP 8+ using secure, object-oriented programming practices.
- MySQL database accessed via PDO for secure and efficient queries.

### Modules:

- Content Management System (CMS): Manage products, news, and static pages.
- Farmer Management: User registration, profiles, support tickets, and history.
- Order Inquiry System: Customers submit seed inquiries; staff manage and respond via admin panel.
- Extension & Demo Plot Tracking: Staff can upload reports and photos via backend interface.
- Analytics: Basic dashboard showing visits, inquiries, and active users.

### Security:

- Input validation and sanitization to prevent SQL injection and XSS attacks.
- Password hashing and secure session handling.
- HTTPS enforcement and CSRF protection.

## 5. Technology Stack Summary

Component	Technology/Tool
Frontend	HTML5, Tailwind CSS, JavaScript (Vanilla for PWA features)
Backend	PHP 8+, MySQL (with PDO)
Progressive Web App	Service Workers, Manifest.json
Hosting	Linux-based server with PHP/MySQL support, SSL enabled
Security	HTTPS, CSRF tokens, Password Hashing (bcrypt),

Component	Technology/Tool
	ReCAPTCHA

## 6. Project Timeline (6 Weeks)

Week	Activities
Week 1	Requirements confirmation, wireframing, UI design prototypes
Week 2	Frontend development (responsive pages, PWA setup), backend architecture setup
Week 3	Backend development (CMS, user management, inquiry system), integration & testing
Week 4	Final testing (performance, security, accessibility), deployment, and admin training

## 7. Quality Assurance

- Cross-browser and device testing including major browsers (Chrome, Firefox, Safari) and mobile OS (iOS, Android).
- Performance optimization to keep load times under 3 seconds.
- Security testing to ensure no vulnerabilities.
- Accessibility testing for WCAG 2.1 compliance.

## 8. Deliverables

- Fully responsive, bilingual (English/Swahili) PWA website with offline capabilities.
- Secure backend CMS for content and user management.
- Farmer Portal with registration and support system.
- Order inquiry workflow with admin management tools.
- Documentation including user manuals and deployment guides.
- Staff training for content and system management.

## 9. Conclusion

Transforming Kibo Seed Company Ltd's website into a modern PWA using PHP, Tailwind CSS, and MySQL with PDO will dramatically improve user engagement, service delivery, and operational efficiency. This approach leverages cutting-edge web technology tailored to local needs, delivering a fast, accessible, and secure platform — all within a focused 1-month timeline.



**PART II: FINANCIAL PROPOSAL**

Redevelopment & Expansion of Kibo Seed Company Ltd Website into a Web System & PWA

**1. Investment Summary**

The total cost for the redevelopment and expansion project is TZS 2,000,000. This covers the website, mobile-ready Progressive Web App (PWA), farmer portal, admin dashboard, and demo plot tracker.

**2. Cost Breakdown**

Component	Cost (TZS)
Design & Prototyping	300,000
Frontend (Website + PWA)	400,000
Backend (CMS + APIs)	500,000
Farmer Portal	300,000
Product Catalog & Inquiries	200,000
Demo Plot & Extension Tracker	150,000
Testing & QA	100,000
Deployment & Training	50,000
<b>Total</b>	<b>2,000,000</b>

**3. Deliverables**

- Modern responsive website (English/Swahili)
- Farmer support portal (registration, resources, inquiries)
- Product catalog with inquiry system
- Extension & demo plot tracking dashboard
- Admin CMS & analytics tools
- Training & 3 months technical support

**4. Timeline & Payment**

- Timeline: 6–8 weeks total
- Payment Plan:
  - 60% upfront – 1,200,000



- 40% on development/testing – 800,000

## 5. Conclusion

This TZS 2,000,000 investment will give Kibo Seed Company Ltd a modern, secure, and scalable platform, improving farmer engagement, product visibility, and operational efficiency.

## PART III: ROOM FOR INPUT & DESIGN SUGGESTIONS

The redevelopment will be a collaborative process with Kibo Seed Company Ltd. The project plan allows full space for inputs, feedback, and design suggestions to ensure the system reflects the company's brand, goals, and farmer needs.

Kibo Seeds will have the opportunity to guide:

- Visual Identity – choice of colors, layouts, and imagery
- Content – product information, brochures.
- Features & Workflows – farmer portal functions, inquiry handling, demo plot reporting
- Validation – reviewing prototypes and providing feedback before final rollout

This approach ensures that the final solution is not only technically sound but also customized to Kibo Seeds' identity and vision.

**DISCLAIMER**

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