Green Future Society Project Report

# 1. Introduction

The Green Future Society project aims to promote sustainable agriculture and improve the seedling supply system for smallholder farmers in Kenya. The project focuses on providing farmers with easy access to quality seedlings through a digital platform, improving agricultural practices, and supporting long-term sustainability in the country’s agroforestry sector.

# 2. Problem Statement

Access to quality seedlings is a significant challenge for smallholder farmers in Kenya, often resulting in poor agricultural yields and financial losses. Traditional seedling supply systems are inefficient, leading to high costs and limited access for farmers in rural areas. Additionally, the lack of educational resources and training on best practices exacerbates the challenges faced by farmers.

# 3. Project Objectives

The primary objectives of the Green Future Society project include:   
1. To provide smallholder farmers with easy access to quality seedlings via an online platform.   
2. To educate farmers on best practices for seedling planting, care, and agroforestry techniques.   
3. To ensure sustainability and environmental responsibility through proper land management practices.

# 4. System Design and Architecture

The Green Future Society platform was designed with the user experience in mind. It includes a user-friendly interface that allows farmers to browse and order seedlings, access educational content, and interact with agricultural experts. The system comprises the following components:  
• Frontend: Built with HTML, CSS, Bootstrap, and JavaScript for a responsive user interface.   
• Backend: Developed using Django for a scalable and secure system.   
• Database: PostgreSQL database for storing user information, seedling data, and order history.

# 5. Implementation

The system was implemented using Django for the backend and PostgreSQL for data storage. The frontend was developed using HTML, CSS, Bootstrap, and JavaScript. A mobile-friendly interface was created to ensure that farmers with limited access to computers could still interact with the platform using smartphones. A payment system was integrated to allow farmers to make payments for seedlings.

# 6. Testing and Validation

Testing involved a combination of functional and usability tests. Key areas of testing included:   
• User registration and login functionality.   
• Seedling catalog browsing and order placement process.   
• Admin panel management, including seedling addition, order tracking, and user management.   
Results showed that the platform was stable, secure, and met the needs of its target users.

# 7. Results and Discussion

The Green Future Society platform successfully addressed challenges in the seedling supply chain, providing a more accessible and efficient system for farmers. Pilot users reported that the platform was easy to use, and they appreciated the educational resources provided. The main challenge identified was the limited internet access in rural areas, which could impact the scalability of the platform. Additionally, efforts should be made to increase awareness among farmers.

# 8. Conclusion and Recommendations

The Green Future Society project has shown the potential of digital platforms to improve seedling supply systems in Kenya. To enhance the success of the platform, the following recommendations are made:   
1. Improve internet connectivity in rural areas to increase accessibility.   
2. Form partnerships with financial institutions to enable seedling financing.   
3. Expand the platform to include additional agricultural products and services.