

# AgroDev: Smart Farming Portal

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## **ABSTRACT**

This paper presents the design and development of an agricultural app that aims to support farmers in managing their crops and livestock. The app provides a range of features that help farmers monitor their farm activities, track crop growth, and manage their resources effectively. It allows farmers to log data about their crops and livestock, including planting dates, fertilization, and harvest dates. The app also provides information on weather conditions, soil moisture levels, and pest control, helping farmers make informed decisions about their farm operations. Additionally, the app includes a marketplace feature where farmers can buy and sell agricultural products, connect with other farmers.

## **1. Introduction**

An agricultural app can be highly relevant for farmers and other stakeholders in the agricultural sector for several reasons:

**Increased efficiency:** Agricultural apps can help farmers manage their crops and livestock more efficiently, reducing waste and increasing yields. They can monitor weather conditions, track soil moisture levels, and manage pests and diseases in real-time, enabling them to act promptly.

**Improved decision-making:** By providing farmers with real-time data and insights, agricultural apps can help them make informed decisions about their operations. They can analyse data about market trends, soil health, and other factors to make strategic decisions about what to plant, when to harvest, and when to sell.

**Access to information:** Agricultural apps can provide farmers with access to valuable information about best practices, regulations, and industry trends. This information can help them stay up-to-date with the latest developments and make informed decisions about their operations.

**Increased profitability:** By optimizing their operations and reducing costs, farmers can increase their profitability. Agricultural apps can help farmers identify areas where they can reduce costs, such as by reducing waste or improving efficiency, and take advantage of opportunities to increase revenue.

**Sustainability:** Agricultural apps can help farmers adopt sustainable practices that minimize their impact on the environment. By monitoring soil health, water usage, and other factors, farmers can ensure that they are using resources efficiently and minimizing waste.

## **2. Service Development – Proposed System:**

As mentioned, the proposed system will help farmers to find out best deals for their crops to sell or buy them. The primary goal of our application is to provide farmer friendly interface which will help farmers to use all the features of our application with ease. Farmers can opt to sell their crops in three categories directly through app i.e. Online, Offline, Industry Markets which will enhance the profitability for farmers as well as dealers.

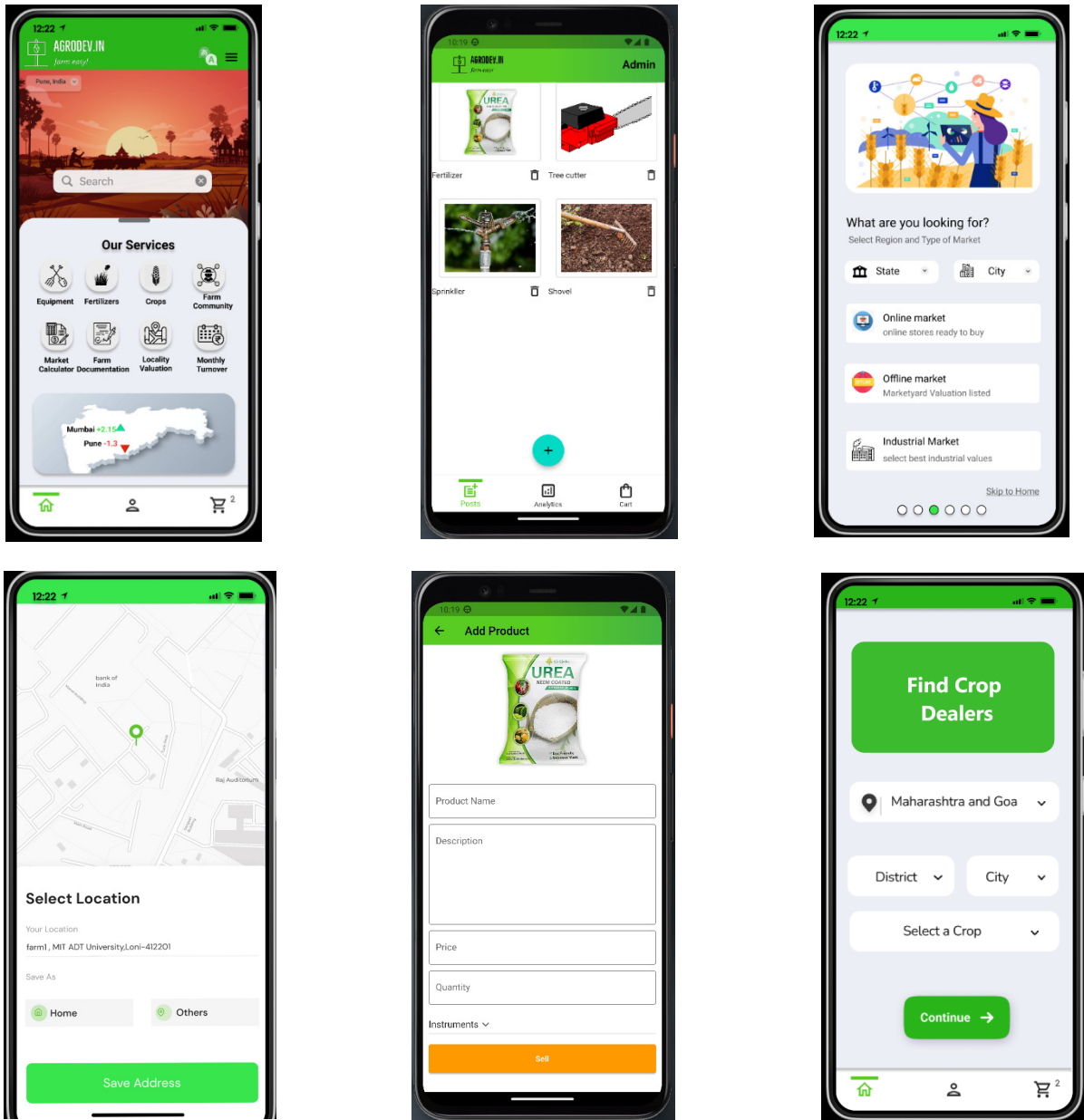


Fig. Proposed System

## 2. Conclusion

Currently, in India, there is a need for a system which provides solutions like finding crop dealers and crop market valuation with options for buying and selling crops. No existing system provides all solutions under one roof and there is a need of a system with simple interface for ease of farmers accessibility.

### **3. Future Scope**

Multiple desirable functionalities can be provided using the system:

1. Export local crops
2. Live Market calculation
3. Farm Land Solutions.