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Innovating sustainably`

Developing a Customised Multilingual Farming Decision Support System (DSS) to Provide Data-Driven, Precision & Predictive Climate Resilient Farming Solutions:

At Finno AQ, our mission is to make farming food simpler, smarter, and more sustainable, enabling farmers to increase production and profitability while actively contributing to climate resilience. We envision a future where farming is both environmentally sustainable and economically viable.

We are proposing to develop a blockchain pioneered, AI powered FaaS (Farming-as-a-Service) platform for the agriculture stakeholder community that will enable them with primary key features like customized farm planning and advisory system, remote production management modules, customized farming recommendations based on hyperlocal weather alerts and other farming monitoring parameters. We will be developing a data-driven predictive analytics system that will ultimately make farming more productive, sustainable, and profitable.

Objectives:

1. Develop a Farming-as-a-Service (FaaS) platform tailored to stakeholders' needs.
2. Enable customized farm planning and advisory system features.
3. Facilitate personalized farming recommendations and insights by integrating spatial data, users' farming requirements, and real-time weather data.
4. Implement remote production management modules for precision and predictive farming.
5. Provide customized farming recommendations based on hyperlocal weather alerts and key monitoring parameters to enhance farming productivity, ensure bio-security, and profitability.

Problem Statement:

There is a lack of organized multilingual support for agri-farm management. Therefore, a digital dashboard enabling remote farm management solutions is of high demand.

The reasons behind this problem are:

- Farm Management Ambiguity: There is a gap in geography-specific and climate-responsive production planning.
- Gap in climate-responsive farming solution resulting from current weather variability.
- Traditional solutions often do not consider geographical parameters, limiting farmers' ability to make informed farming decisions for a climate-constrained farming future.

Proposed Solution:

Develop a Farming-as-a-Service (FaaS) platform to provide a complete end-to-end customised farm extension and advisory solution. By integrating digitalized spatial data, user farming requirements, real-time weather data and more the platform will offer customized climate-smart farm planning and advisory features, remote production management modules, and marketplace connect through the digital app-cum-software platform.

Product Features/Solutions Brief:

- Intuitive User Interfaces: User-friendly interfaces designed for easy navigation, communication and interaction, ensuring a seamless user experience without the need for technical assistance
- Customized Farm Planning Dashboard: The dashboard provides users with tools to plan and manage their farms according to their specific requirements and preferences.

- **Customized Multilingual Farming SOP Generation:** Generation of customized Standard Operating Procedures (SOP) in regional languages and recommendations tailored to users' specific farming needs based on geographical and climatic conditions, aiding in the implementation of best practices for farm operation.
- **Display real-time weather updates and forecasts directly on the dashboard,** enabling users to stay informed about current and future weather conditions affecting their farms.
- **Hyperlocal Weather Forecast-Based Recommendations:** Provision of hyperlocal weather-based farming recommendations, offering actionable insights for optimizing farming practices based on weather forecasts.
- **Digital Farm Tracking:** Users can upload crops/fish/shrimp weights periodically and get growth analysis, FCR calculations, disease etc. Also users can upload vital water-soil parameters and get instant recommendations based on the condition.

Our Primary Target Users:

Agribusinesses, Farmers' organizations (FPOs, FPCs, NGOs, etc), Commercial Farm owners, Farming enthusiasts, Technicians and Farm consultants.

Our Secondary Target Users:

Agri-startups, Impact Investors, Extension Agencies, Government Organisations, Banks and Insurance Agencies etc.

Economic Value Propositions:

1. Boosted Productivity and Profitability:

- The platform enables informed decision-making, minimizes losses from sudden weather events, and optimizes resources.

2. Cost Savings through Remote Management:

- With remote production management modules, farmers can monitor and control farm activities digitally, reducing travel time and operational costs. Data-driven operation management also ensures optimal use of critical resources like feed, electricity, fertilizers, and water, leading to further cost reductions in their production and manufacturing.

3. Risk Mitigation via Hyperlocal Weather Alerts:

- Hyperlocal weather-based recommendations help farmers respond proactively to adverse conditions, protecting crops and stocks from climate variability. This predictive insight lowers risk, ensuring more stable returns.

4. Increased Market Access:

- The platform's digital marketplace connects farmers with a wider network of buyers and suppliers, ensuring fair pricing and improved market access, which leads to increased sales opportunities and revenue growth.

5. Localized Knowledge Empowerment:

- By offering farm-specific Standard Operating Procedures (SOPs) and best practices in local languages, the platform empowers farmers with region-specific knowledge, helping them implement efficient farming practices and reducing the risk of costly errors.

Social Value Propositions:

1. Inclusive Multilingual Support:

- The platform's multilingual capabilities ensure that farmers from diverse linguistic backgrounds can access crucial information in their preferred language, closing the knowledge gap and fostering greater inclusion in the farming community.

2. Empowerment of Small and Marginal Farmers:

- Small and marginal farmers gain access to advanced technologies previously available only to larger farms, leveling the playing field and improving livelihoods through enhanced productivity and profitability.

3. Skills Development:

- The platform creates new opportunities for farm technicians, consultants, and

service providers to collaborate while also offering training and upskilling for farmers and workers, helping them adapt to modern digital farming methods.

4. Stronger Farming Communities:

- By integrating farmer organizations, cooperatives, and NGOs, the platform encourages a community-driven approach to farming, leading to shared resources, better planning, and more sustainable farming networks.

Environmental Value Propositions:

1. Climate-Resilient Farming Practices:

- The platform provides climate-responsive recommendations that help farmers adapt to changing weather conditions, making their practices more resilient to climate impacts and reducing production losses caused by extreme weather.

2. Sustainable Resource Management:

- Digital tracking of farming key parameters (e.g., soil-water quality, fish/shrimp growth) promotes efficient resource use, reducing waste, and supporting environmentally friendly practices.

3. Reduced Environmental Degradation:

- The platform's geography-specific recommendations minimize the overuse of fertilizers, water pollution, and improper resource use, contributing to the maintaining balance of aquatic and soil ecosystems.

4. Lower Carbon Footprint:

- By enabling remote farm monitoring, the platform reduces the need for frequent visits, helping to lower transportation emissions and the overall carbon footprint of farm operations.

5. Bio-Security and Disease Prevention:

- The platform's predictive analytics ensure early disease detection and biosecurity measures, preventing outbreaks and maintaining healthy aquatic environments, while avoiding environmental contamination.

Alignment with Sustainable Market Growth:

1. ESG Alignment:

- This project directly supports global ESG (Environmental, Social, Governance) goals by promoting sustainable, climate-friendly farming practices, fostering social inclusivity, and ensuring data-driven governance and transparency.

2. Support for Government Sustainability Goals:

- The platform helps farmers align with government sustainability initiatives and take advantage of available incentives or subsidies for eco-friendly practices, reinforcing national goals for sustainable agriculture and climate resilience.

3. Contributing to the Blue/Green/Golden Economy:

- By ensuring responsible use of resources, the platform supports the sustainable growth of the farming industry, contributing to the global vision of a sustainable future that balances economic growth with long-term environmental stewardship.

Proposed Revenue Model Strategies:

- Farm Tech Product Market (Licensing/Contract-Based Revenue Model)
- D2C Agripreneur app platform (Freemium Based Revenue Model)
- B2B FaaS Platform (Subscription-Based Revenue Model)
- Marketplace Platform (Commission Based Revenue Model)