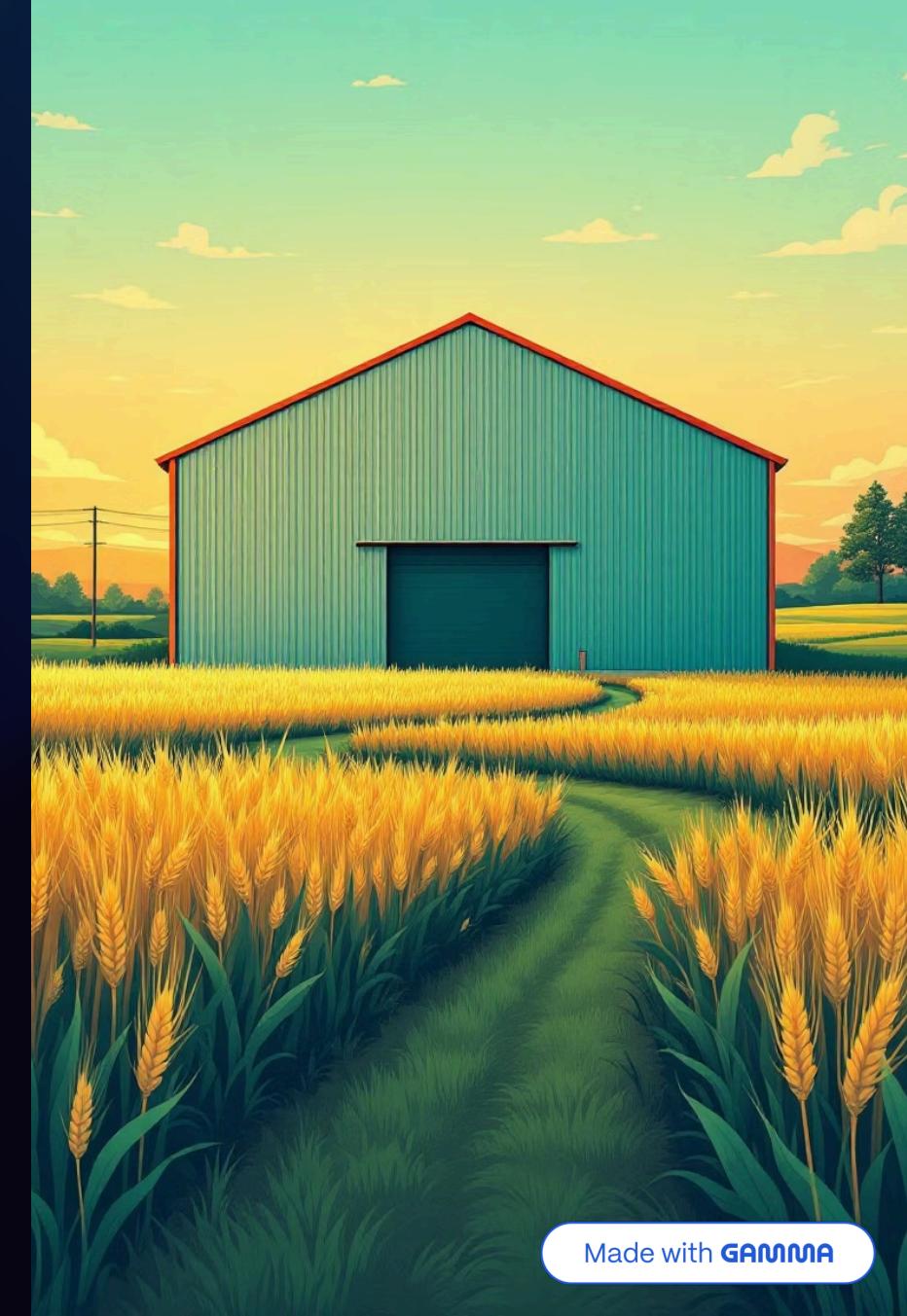


# Ceres Protocol

## Decentralized Warehouse Insurance DAO

Securing the future of agricultural storage through blockchain-powered transparency, community governance, and decentralized insurance solutions for farmers worldwide.



# Meet the Team

## **Mohammad Afzal Siddiqui**

Backend/Blockchain Developer

1+ year of experience

## **Sahil Ali**

Fullstack web3 developer

1+ year of experience

## **Mohammad Hassan Siddiqui**

Frontend developer

# The Problem We're Solving



## Traditional Agricultural Insurance is Broken

Small farmers face a crisis of trust and access in agricultural storage and insurance markets.

- **Zero transparency** in claim processes and decision-making
- **Opaque pricing** with hidden fees and unclear terms
- **Limited access** to quality verified storage facilities
- **Slow payouts** that leave farmers financially vulnerable

# Introducing Ceres Protocol

A decentralized platform connecting farmers with verified warehouses through transparent blockchain-based booking, payments, and community-driven insurance powered by Hedera EVM.



## DAO Governance

Community voting on insurance claims ensures fairness and eliminates single points of failure in decision-making.



## Verified Warehouses

Curated listings with transparent pricing, real conditions, and verified owner credentials for farmer peace of mind.



## On-Chain Booking

Direct HBAR payments to warehouse owners with instant settlement and complete transaction transparency.

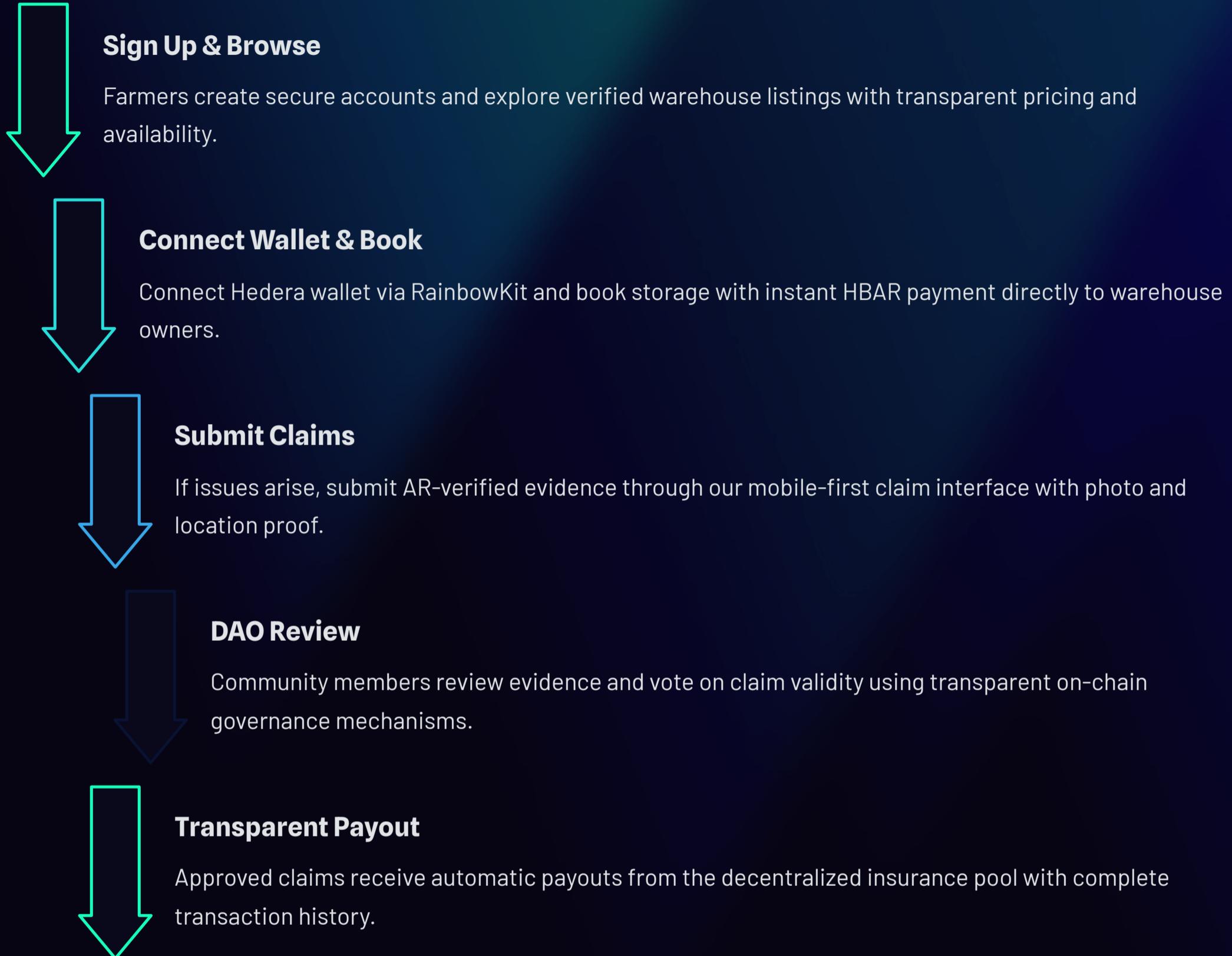


## AR Verification

Augmented reality evidence submission for claims provides tamper-proof documentation and faster processing.



# How Ceres Protocol Works



## Powered by Modern Technology

- **Blockchain:** Hedera EVM for low-cost, scalable transactions
- **Smart Contracts:** Solidity-based DAO and payment logic
- **Frontend:** React, TypeScript, Tailwind CSS, Vite
- **Backend:** Node.js, Express, MongoDB for off-chain data
- **Web3:** Wagmi, Viem, RainbowKit for seamless wallet integration
- **Security:** JWT authentication and bcrypt encryption

## Market Opportunity

The global agricultural insurance market is projected to reach **\$50B+ by 2030**, with small farmers representing the fastest-growing segment.

Warehouse management platforms are expanding at **12% CAGR**, creating massive opportunity for blockchain disruption.

# Product Roadmap



# Lessons Learned & Future Improvements

## Key Learnings

### DAO Governance Complexity

Balancing decentralization with efficient decision-making requires careful incentive design and voting mechanisms.

### UX for Non-Technical Users

Farmers need simplified wallet onboarding and educational resources to adopt blockchain technology confidently.

### Scalability Considerations

Agricultural markets have seasonal spikes requiring elastic infrastructure and optimized gas fees during peak periods.

### Community Building

Early stakeholder engagement and transparent communication are critical for DAO success and organic growth.

## Areas for Enhancement

1

### Hybrid Payment Systems

Integrate traditional payment options alongside crypto to reduce adoption friction for conservative farmers.

2

### Enhanced Onboarding

Interactive tutorials, video guides, and multilingual support to make crypto-native features accessible to all users.

3

### Product Diversification

Expand beyond grain storage to cold storage, livestock facilities, and specialized agricultural products.

4

### Insurance Pool Optimization

Implement dynamic risk-adjusted premiums and reinsurance mechanisms for sustainable long-term growth.

# See Ceres Protocol in Action

Watch our comprehensive demo showcasing the complete user journey from wallet connection to DAO voting. Experience how we're transforming agricultural insurance through blockchain technology.

 **Demo Video:** Insert your YouTube demo link here to showcase the full platform functionality including user registration, wallet connection, warehouse booking, HBAR payments, and DAO claim voting.

01

## User Registration & Login

Secure JWT-based authentication with intuitive onboarding flow

02

## Hedera Wallet Connection

Seamless RainbowKit integration on testnet with transaction signing

03

## Browse & Filter Warehouses

Explore verified listings with real-time availability and transparent pricing

04

## Complete HBAR Booking

Direct payment to warehouse owners with on-chain confirmation

05

## Claim Submission & DAO Voting

AR evidence upload and community governance in action

## Ready to Transform Agricultural Insurance?

Ceres Protocol combines the transparency of blockchain with the power of community governance to create a fairer, more accessible insurance ecosystem for farmers worldwide.

# Demo Video

<https://drive.google.com/drive/folders/1yJFgQVrO55cV11xGTESm-d6zR5m-gI0S?usp=sharing>