## TradeWiser Web 3.0 Based Lending

Here is a detailed Blockchain-based warehouse receipt financing mechanism for embedding lending business into the TradeWiser mechanism:

- 1. Registration and Onboarding: Farmers, traders, and other participants need to register and onboard onto the TradeWiser platform. During the onboarding process, they would be required to provide their basic details, including KYC documents, and details of their agricultural produce, and their financial history.
- 2. Warehouse Receipt (eWR) Creation: Once the participants deposit their agricultural produce into a designated warehouse, the warehouse will issue an electronic warehouse receipt (eWR) to them. The eWR will contain details such as the quantity, quality, and value of the agricultural produce. The eWR will be created and stored on the Blockchain platform to ensure transparency and immutability.
- 3. Lender Participation: Lenders can register on the TradeWiser platform to participate in the lending mechanism. Lenders will need to provide their financial details and lending criteria.
- 4. Smart Contract Creation: Once the eWR is generated, a smart contract will be created on the Blockchain platform that will define the terms and conditions of the warehouse receipt financing agreement. The smart contract will include details such as the loan amount, interest rate, collateral value, repayment terms, and other conditions.
- 5. Credit Assessment and Valuation: The TradeWiser mechanism will perform credit assessment and valuation of the eWRs based on the quality, quantity, and market value of the agricultural produce. The mechanism will use various data points to determine the creditworthiness of the borrower, such as the eWR value, the quality of the agricultural produce, the current market demand and supply, and the borrower's financial history.
- 6. Lending Decision: Based on the credit assessment and valuation, the TradeWiser mechanism will provide a lending decision to the lender. If the lender agrees to provide the loan, they will transfer the loan amount to the borrower's bank account.
- 7. Loan Disbursement: Once the loan is approved, the borrower will receive the loan amount in their bank account. The borrower will need to provide the eWR as collateral for the loan.
- 8. Repayment: The borrower will need to repay the loan amount with interest within the agreed repayment terms. If the borrower fails to repay the loan, the lender will have the right to liquidate the collateral (eWR) to recover the loan amount.
- 9. Smart Contract Execution: The smart contract will execute the lending agreement and update the transaction history on the Blockchain platform.
- 10. TradeWiser Fees: The TradeWiser mechanism will charge a transaction fee for providing the lending platform and credit assessment services. The fee will be deducted from the loan amount or paid separately by the borrower or lender.
  - In summary, the above mechanism utilizes the Blockchain platform to create a transparent, secure, and efficient warehouse receipt financing mechanism for embedding lending business into the TradeWiser ecosystem.

To incorporate a lending mechanism like warehouse receipt financing into the TradeWiser platform using web 3.0 technology. Here's how it could work:

- 1. Once a farmer like Ram has deposited his crops in a TradeWiser-approved warehouse and received a digital warehouse receipt (eWR), he can use this eWR as collateral to obtain a loan from a TradeWiser-approved lender.
- 2. The lender would access the eWR stored on the TradeWiser blockchain and verify that it is legitimate, as well as perform a credit assessment of the farmer or trader.
- 3. If the loan application is approved, the lender would transfer the loan funds to the farmer or trader's account on the TradeWiser platform.
- 4. The lender would hold the eWR as collateral until the loan is repaid in full, at which point the eWR would be returned to the farmer or trader.
- 5. In the event that the borrower defaults on the loan, the lender would be able to use the eWR to claim ownership of the stored crops.

Using web 3.0 technology, this lending mechanism could be made more secure and transparent by leveraging smart contracts and decentralized finance (DeFi) protocols. For example, a smart contract could be created to automate the lending process, including loan origination, disbursement, and repayment, and this contract could be stored on a decentralized blockchain like Blockchain to ensure that it is tamper-proof and transparent.

In addition, DeFi protocols like tokenization and automated market makers could be used to create a secondary market for the eWRs, enabling lenders to hedge their risk and providing more liquidity to the lending market. This could make it easier for farmers and traders to access affordable credit, as well as enable lenders to more efficiently manage their lending portfolios.