

Heifer International Foundation *Registration of Assets*



Challenge Statement:

In 2017, our team helped Grass Roots Farmers' Cooperative launch the first poultry supply-chain tracking product with a company called Provenance on the Ethereum blockchain network. We learned that this ledger tracking system is not yet affordable for most small-holder farmers (especially in less developed countries) because of the technology cost for the hardware/software required. For this reason, Heifer International wants to develop an in-house Asset Registration Tool powered by blockchain technology that doesn't require a third-party. The asset lists could consist of agricultural items such as cows, goats, chickens, and crop-seed or even documentation like land deeds and organic/non-child labor/fair trade certifications. This registration and tracking of ownership on a distributed ledger system will help small-scale farmers to provide origin tracking and quality standards certification, as well as helping facilitate access to the market.

The solution would be able to:

- Reduce transaction cost for low-income farmers
- Easy to use for potentially illiterate communities in low development countries
- Low energy and bandwidth requirement.
- Standard technology for interoperability with other supply chain applications, such as IBM Food Trust, Provenance and Viant.

Additional Information:

Key Definitions:

- Asset Register – is a journal of a transaction of assets. Similar to a cash register or an inventory register.
- Transaction - a change of state, either asset changing hands, or change in data. For example, an agreement between a buyer and a seller or a transformation of raw material to a final product.
- Supply chain – is a series of transactions that add value to a product until it gets to the consumer.
- Mobile Application - most commonly referred to as an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet computer.

Resources:

1. https://www.dropbox.com/sh/trqsp3ncz9noc63/AACtQR76zPtgK_-SWVSoD7i6a?dl=0
2. <https://www.provenance.org/case-studies/grass-roots>