Ceri

Improving Value of Core Coffee Processing : Drying and Fermentation

Coffee Plantation Tracking System

Background

Coffee

Coffee is *the second most* sought-after commodity in the the world. Coffee industry is growing at CAGR (Compound Annual Growth Rate) of *5.5%.*

Indonesian Coffee

Rank *4th* producer of coffee beans in the world. Our Plantation area three times larger than Vietnam plantation area but we produce *only half* their production.

Poor Quality

Processing, if done perfectly, could be an *important value* added activity to improve coffee quality and so the price. Poor processing caused by *traditional, trial and error practices*

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Drying Stage

The drying process demands more *attention and caution*, as if the desired variables were not met, *it could lead to a various degraded product*

Fermentation Stage

The fermentation process demands more *caution and proper treatment*, as if the desired variables were not met, *it could lead to a various degraded product*

Problem

Traditional, trial and error practices. No system of collecting and monitoring data for further utilization

The important variable that affect the drying stage are *temperature and humidity of the drying house.*

The quality of coffee beans at stake in the *process is related* to how long the coffee beans are dried and fermented. What we desired is a process of moisture reduction that is not extreme, with stable and consistent conditions.

# Ceri as a Solution
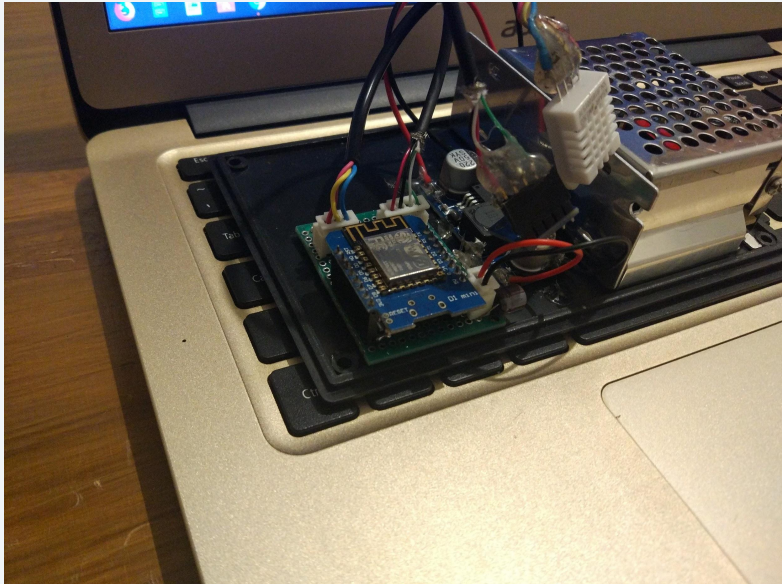
Data Acquisition and Monitoring using IoT

- Ceri collect *temperature, humidity, and light intensity* inside and outside of the coffee drying house.
- Ceri collect, control and maintain *acid level* in fermentation process.
- Ceri control and maintain *temperature, humidity and light intensity* inside coffee drying house
- Collected data from Ceri will be the basis for further treatment and/or practices to *improve coffee beans quality*

Our Pilot Project
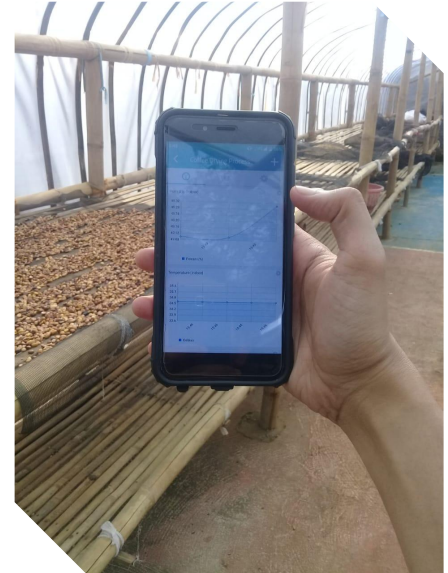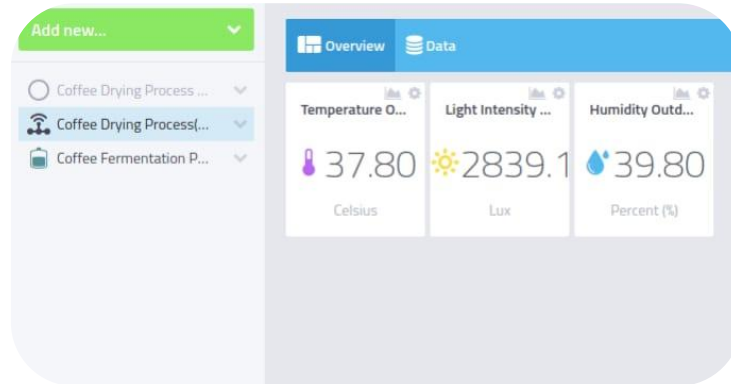
Value Proposition

Our Value
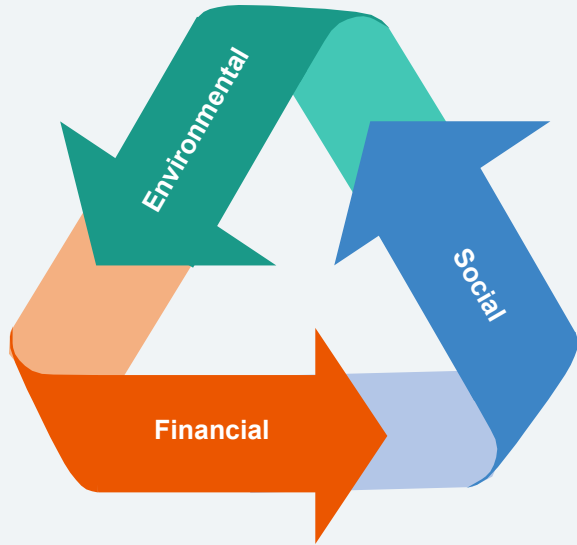
Our long term aim is to achieve sustainability goals by contributing in a stage of coffee supply chain

As monitoring tools

Ceri provide reliable real time data to monitor the drying stage of coffee beans. The goals is to improve the quality by reducing the risk of undesirable condition. The data will be used by business owner to plan and maintain necessary treatment to ensure the desired conditions are met.

As micro climate data collector

Beside monitoring drying stage Ceri act as a data collector for a micro climate condition. Ceri predict climate condition in the future based on data. By combining the data from various location, the processed data could be use in wide variations of use, such as other plantation optimization and also risk and logistic calculation.

Market Validation

Coffee Export Volume & Value (2007 - 2017)
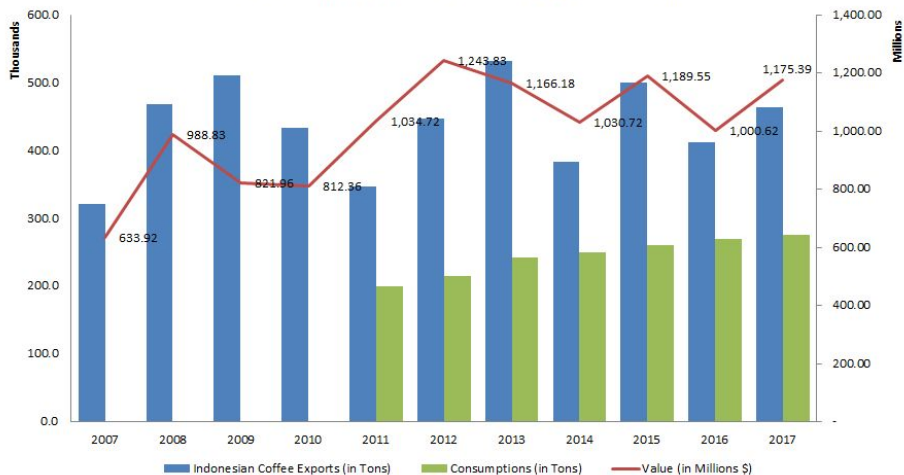
6.4%

Average Export
Value Growth

7.7%

Compound Annual
Growth Rate
Domestic
Consumption
*(2011 – 2017)

Market Size

More than 50

Government Estates

Almost every provincial or regional government have coffee estates. Dozen of state owned enterprises

123

Registered Private Estates

According to The Ministry of Industrial, there are 123 medium to large size company that involved in coffee business

More than 700 thousand

Smallholder Coffee Farmers

As market target that rely on government funding or corporate program / CSR

Plantation Area

Government

23.634 Ha

Total Coffee Plantation, with various government body and corporate as the cultivator.

Private Sector

23.186 Ha

Total Coffee Plantation, with various foreign company are strongly affiliated with locals company who act as cultivator
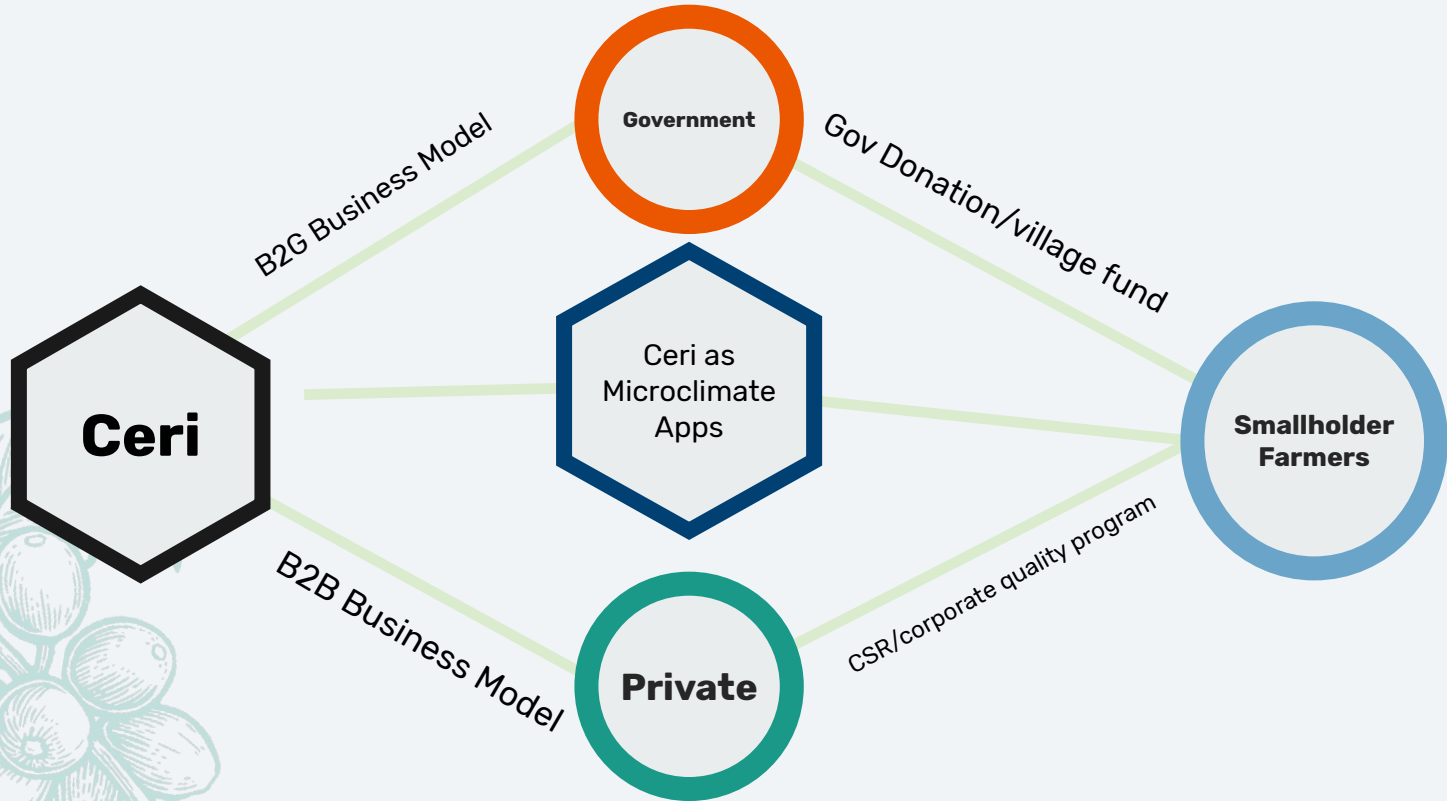
Smallholder Coffee Farmers

1.204.883 Ha

Total Coffee Plantation, with smallholder farmers number ranged around 600.000 – 800.000 farmers

Business Model

Revenue Stream

Government (Business to Government)

- Start to target Government that will act as **buyers, influencers** and also **users.**
- Government will help with the exposure and implementation to smallholder through their internal program such as Perhutanan Sosial.

Private (Business to Business)

- Private sector will be secondary the gate for us to reach smallholder farmers, besides act as users too.
- We will make sure that the fund of CSR and international or corporate quality program make an impact to farmers by implementing Ceri.

Smallholder Farmers

- Current condition makes it impossible for them to allocate their own resource to buy/use Ceri
- Need to trigger the string from another angle : government fund and CSR/corporate program.
- They could download and use Ceri as Micro Climate Apps.
- The apps will generate nearby Ceri user, and share the environment data collected to other farmers
- Ceri as MC Apps (Micro Climate Apps) will also act as a benchmark and prediction analysis especially for micro climate condition.

Milestone

1

2

- Securing a Patent

- Testing and validate our first prototype

- Signing our first customer

- Finding an affordable manufacturer

Our Team

Ahmad Radhy

IoT Engineers

Aldi Raharja

Co-Founder Tritangtu
Kopi

Zaid Robbany

Web & Mobile Apps
Developer

Our love for coffee bind us together

Thank you.

"Improvement usually means doing something that we have never done before"
- Shigeo Shingo