Community
Two batches
75%
Livelihood
The scraper needs additional iterations

Testing in tropical environments
2.5 BILLION Farmers Worldwide

POPULATION

- 900M Dairy Farmers
- 250M Rural Dairy Farmers
- 5K Guyanese Rural Dairy Farmers
Large scale options are too expensive. Locals rely on commercial imports. Our small scale approach empowers rural communities and stimulates local economies.
Average dairy farmers make 3.27 USD/day

Our product would allow them to make 4.10 USD/day (26% increase)

Our product pays for itself in 2 months
200 USD to manufacture

Selling for 40 USD/unit

Fixed donations 45,000 USD/yr
Projected Subsidized Profit

It will take us **6 years** to become a fully functioning non-profit.
Potential NGO Partners

Guyanese Rural Women’s Network
Habitat for Humanity
St. Francis Community Developers
Special Thanks

Prof. David Wallace  Dick Fenner
Matt Duplessie  Joe Cronin
Sangbae Kim  Steve Haberek
Steve Keating  Bill Cormier
Thea Singer  James Dudley
Joe Bari  Conrad and Candace Wilson
Mike Stern  Chevalley Duhart
Dr. Barbara Hughey  Judith Anderson
Dr. Pradip Sarmah  Jose Gomez-Marquez
Selling price for GAIA milk is less than 1/2 of the price for store bought powdered milk.

Our product would process ~2 gallons of milk/hour.

 Typical Guyanese farmer has 6-8 cows.
Price/gallon [GSD(USD)]:

Liquid milk
413.99 (2.07)

Nestle powdered milk
902.69 (4.51)

GAIA milk
361.08 (1.81)
**Pressurized Drum**
Maintains a constant 135 °C temperature by regulating internal steam pressure and also acts as our drying surface.

**Funnel Collector**
Directs the milk powder into a collecting unit and shields it from the outside environment.

**Rocket Stove**
Made of concrete, provides efficient heat transfer from the fire to the drum.

**Drip Applicator**
Uses a gravity fed system to apply a thin, even film of milk to the drum surface.

**Steel Scraper**
Is adjustable and spring loaded to maintain an ideal contact angle and cleanly scrape off the milk powder.

**Pedal Drive System**
Provides an easy, manual way to rotate the drum and power the drying process.