



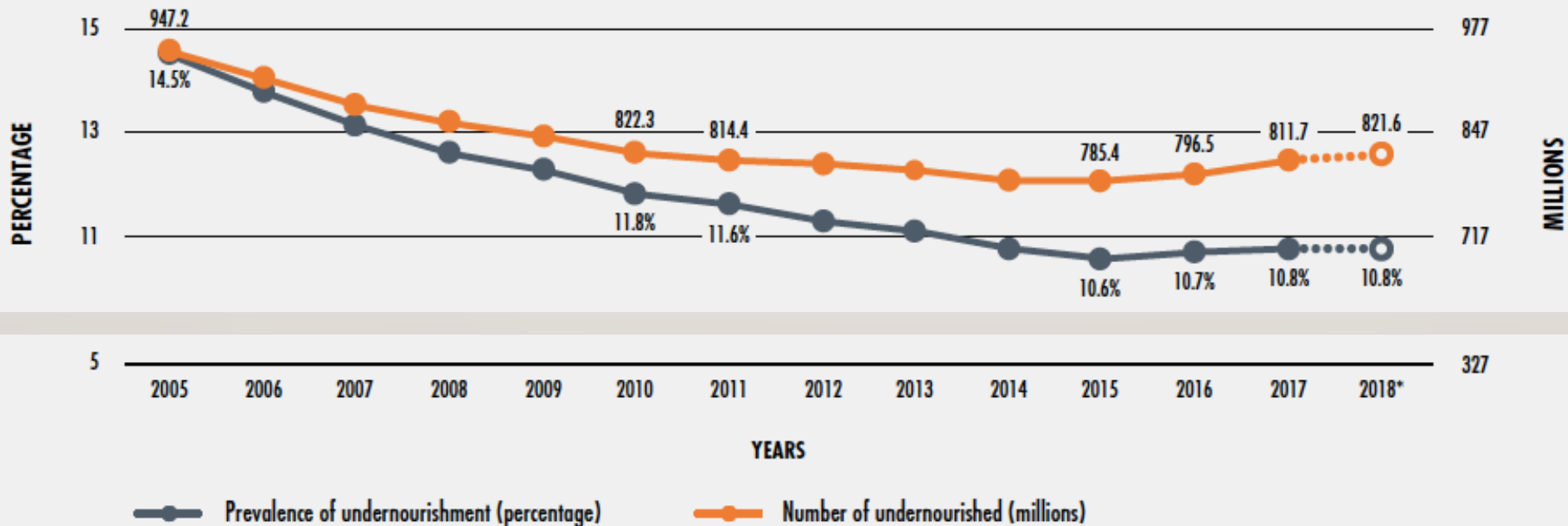
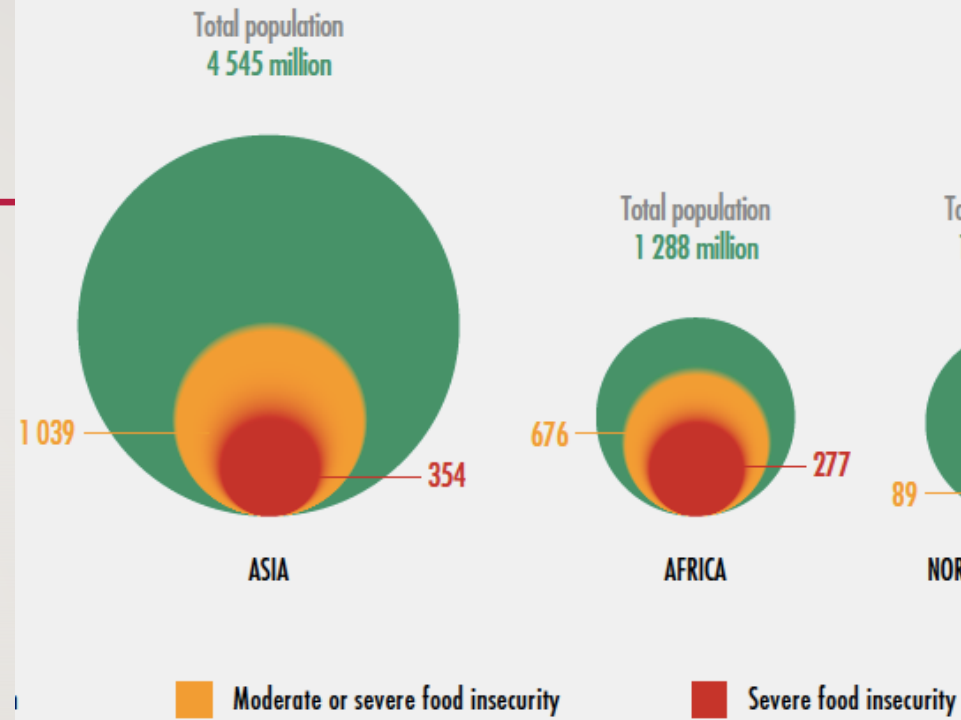
# LOCAL JOBS FOR WOMEN TO TACKLE MALNUTRITION

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- APPROPRIATE SOYFOOD TECHNOLOGY SOLUTIONS -

# Problem Statement

- Number of undernourished and food insecure rising in recent years
- Massive numbers: over 1B food insecure in Asia and 700M in Africa
- 8M deaths per year, incl 3M children

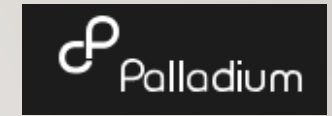


Data from  
SOFI Report  
2019

# Solution: Deep Impact at the Base of the Pyramid

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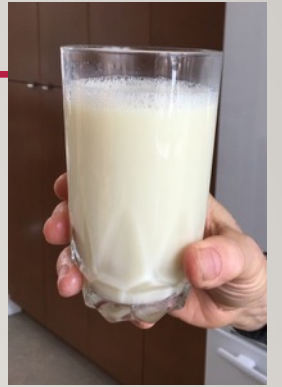
- Solve chronic malnutrition with affordable, accessible nutrient-dense food
- Provide a platform for local, sustainable micro-enterprises
- In Malawi, 200 SoyaKits, 1,200 in 2020 and now being scaled up to 4,000+
- Empower rural women and youth
- Provide a revenue stream for local agencies / NGO's



Daughter and friend of Masha Chiposyo, SoyaKit entrepreneur in Malawi, drinking soymilk

# The SoyaKit

\$200 kit that transforms locally grown soybeans into tasty, high-protein products and enables women entrepreneurs to earn \$3 - 12 / day in profits



Soy milk



Soy yogurt



Tofu



Soybeans



# SOYFOODS PROCESS - SOYAKIT



Complete Trainer's Guide  
and User's Guide available

# Tasty, highly nutritious products

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Soy milk



Soy yogurt



Tofu

+  
others

- Delicious and meet local tastes w various flavors
- Local source of safe, protein-rich food
- Less than  $\frac{1}{2}$  the cost of eggs, chicken or dairy milk  
(as low as 1 cent retail / gram protein)

# Life-changing Impact with the SoyaKit

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- Zione Charles, a single mother supporting 5 children in rural Malawi, sells food made with the SoyaKit
- “ I am now able to support the school-going children, in the past I could not even afford a notebook for a child to use in class. I could say that I was poor because sometimes my family could go without meals, but now things have changed a lot.”
- Profit of between \$25 and \$50/week from 12 to 16 liters of daily soymilk production and sales



Zione Charles, seen on the right, selling a cup of freshly-made soymilk to a customer

See [‘Testimonials from Entrepreneurs’](#) for additional examples

# Women Entrepreneurs' Daily Profit

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Product	Costs	Price	Profit
Soy milk (21 L)	\$4.50	\$10.50	\$6.00
Soy Yoghurt (21 L)	\$5.00	\$21.00	\$16.00
Tofu Kebabs (3.6 kg)	\$4.25	\$12.40	\$8.15

Profits based on 3 hours of SoyaKit production for EACH food type

Figures based on field experience: local costs in rural Africa & competitive retail pricing

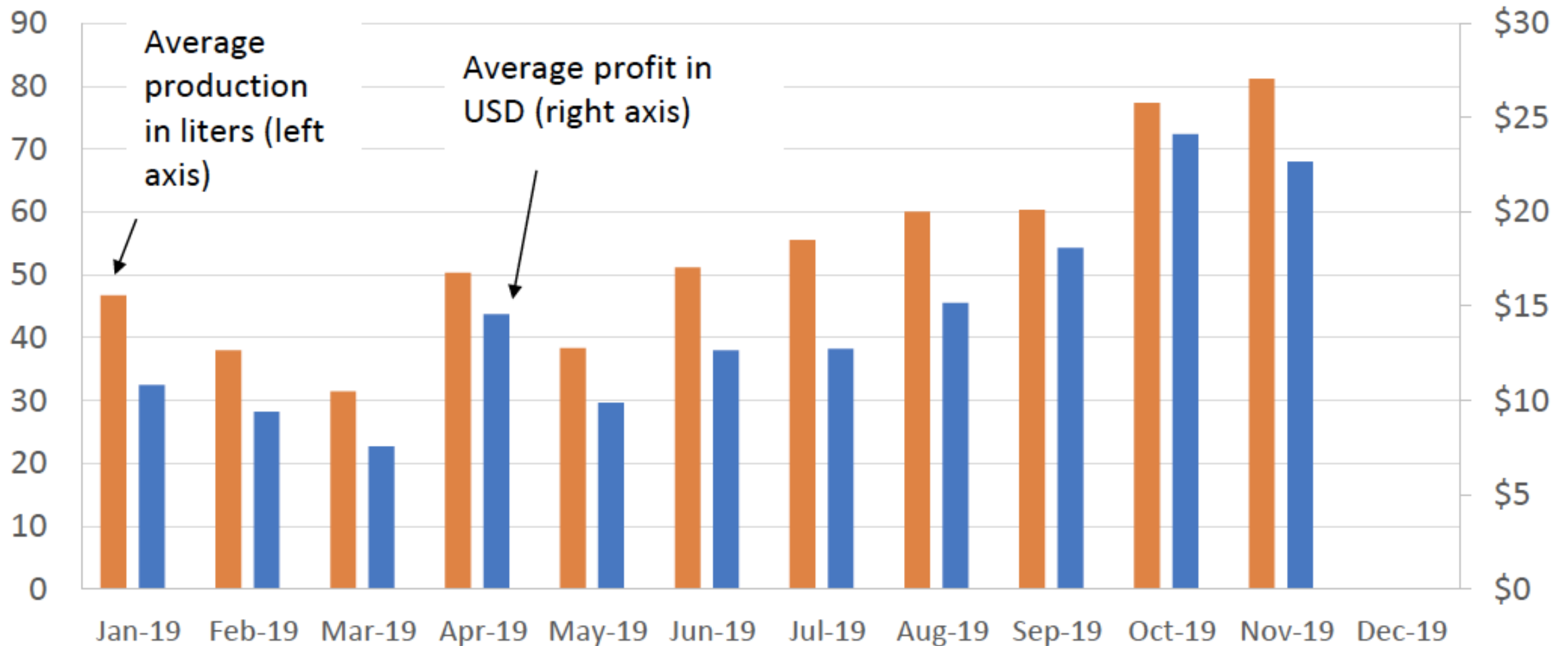


Masha Chiposyo, new entrepreneur in rural Malawi, with manual grinder from the SoyaKit



# Women Entrepreneurs: Profit in Malawi

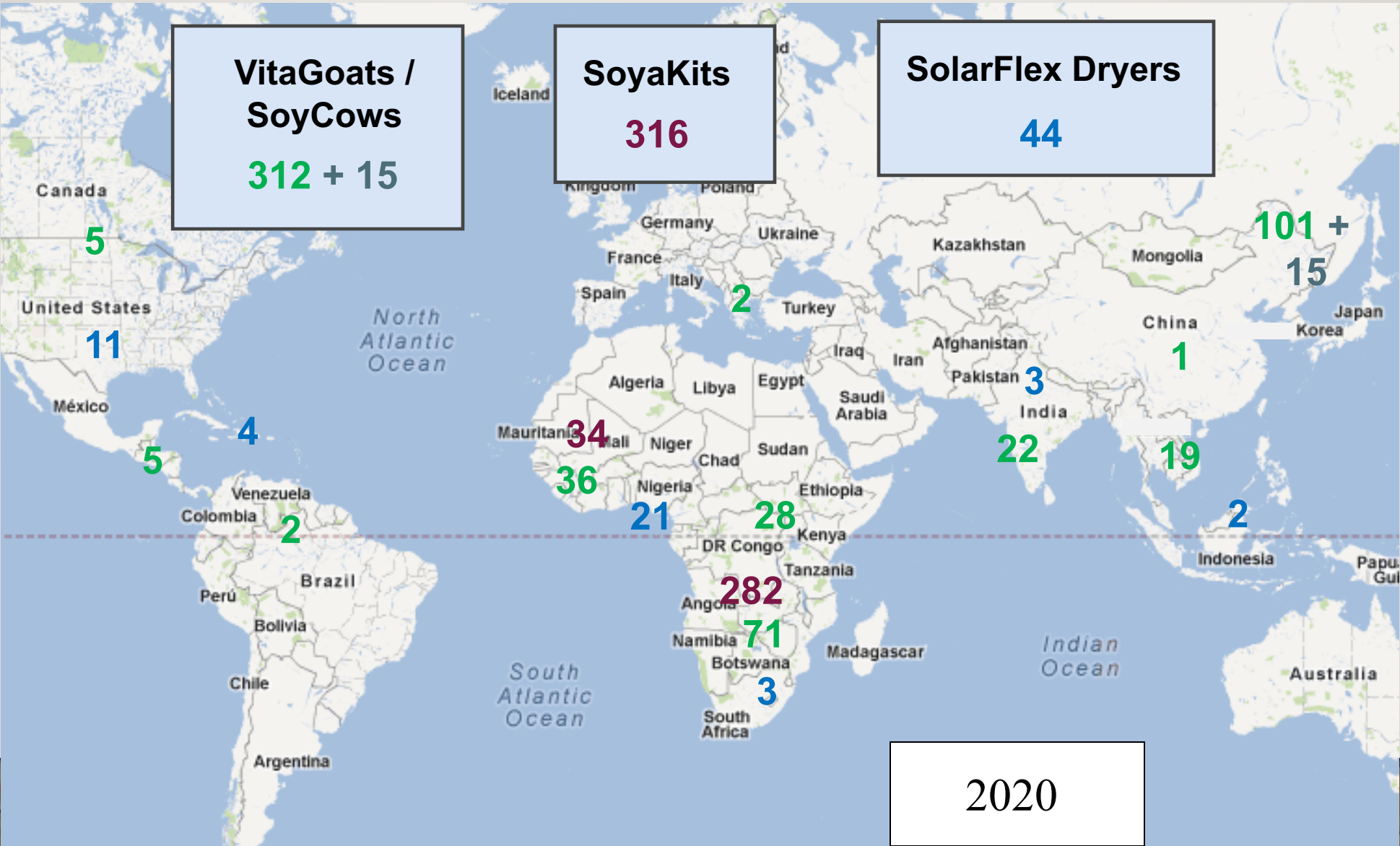
Average Production and Profits by Month



VitaGoat, SoyCow, SoyaKit and SolarFlex  
Installations by Region

**Malnutrition Matters**

FOOD TECHNOLOGY SOLUTIONS



# Current Impact

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- 170,000 daily beneficiaries of protein-rich foods now
- \$2.5M cumulative profit for micro-entrepreneurs, mainly women
- 500 entrepreneurs now making annual profit of \$600 each
- 1,000 people trained in small-business basics

MEDA employee in northern Ghana, training other rural entrepreneurs to operate the SoyaKit



Global Affairs  
Canada



# IMPACT PATHWAY



Mission	Activities	Outputs	Outcomes	Impacts
<p><b>Equip Africans &amp; Asians to profitably eliminate malnutrition</b></p>	<ul style="list-style-type: none"> <li>• Design food processing technology</li> <li>• Manage fabrication of food processing equipment</li> <li>• Develop and deliver operations training</li> <li>• Develop and deliver business training</li> </ul>	<ul style="list-style-type: none"> <li>• Units delivered</li> <li>• Entrepreneurs trained</li> </ul>	<ul style="list-style-type: none"> <li>• Micro – enterprises established</li> <li>• Sales / profits</li> <li>• Women and youth employed</li> <li>• Customers served</li> <li>• Protein and micro-nutrients delivered</li> <li>• Customers’ food savings</li> <li>• Increased farmer income</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced deaths</li> <li>• Children: reduced stunting                             <ul style="list-style-type: none"> <li>• improved physical and neurological development</li> </ul> </li> <li>• Children: Improved educational outcomes</li> <li>• Adults: better health</li> <li>• Improved gender equity</li> <li>• Increased human capital</li> <li>• Improved local economy</li> <li>• Improved environmental sustainability</li> </ul>

# Whole Product

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Core Product:  
SoyaKit or SoyCow



Training



Service &  
Spare  
Parts

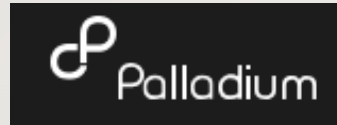


Micro-Financing or  
Pay-as-you-Go, via partners

Micro-Enterprise  
Incubation Support

# Success Stories: Rural Malawi

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- 2018 – 30 SoyaKits
- 2019 – 200 SoyaKits
- Average profit of \$24/month
- Payback 4 to 8 months
- Adult & student customers



Daughter and friend of Masha Chiposyo, SoyaKit entrepreneur drinking soymilk

# Success Stories: Rural Ghana

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**MEDA** GROW program

- 2017/8 – 30 SoyaKits
- \$12 average profit/day
- Payback < 2 months
- Student customers



Student customers enjoying their fresh soymilk

# Value Proposition for the Entrepreneur

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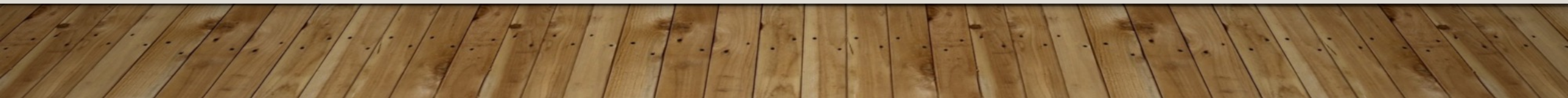
**Who wants/needs a job**, increased income and improved nutrition for their family

**The SoyaKit is** a food processing solution

**That provides** a micro-enterprise platform to enable time-and fuel-efficient production and sale of affordable, tasty, high-protein foods

**Unlike** risky laying hens or other animal husbandry, yielding eggs/milk/meat, the SoyaKit delivers locally made soyfood protein at less than  $\frac{1}{2}$  the retail prices

**Our solution** enables flexible, local production of affordable protein equivalent to animal protein, with \$1 - \$3 profit per hour of production





# Value Proposition for the Aid Agency, NGO, Foundation or Prime Implementer

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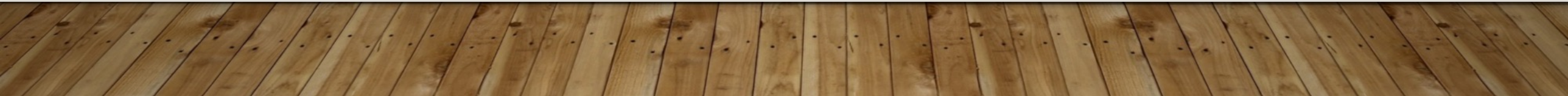
**Who wants/needs** a proven vehicle to empower women or youth and/or improve nutrition in under-nourished areas

**The SoyaKit is** a proven micro-enterprise platform (Ghana, Malawi)

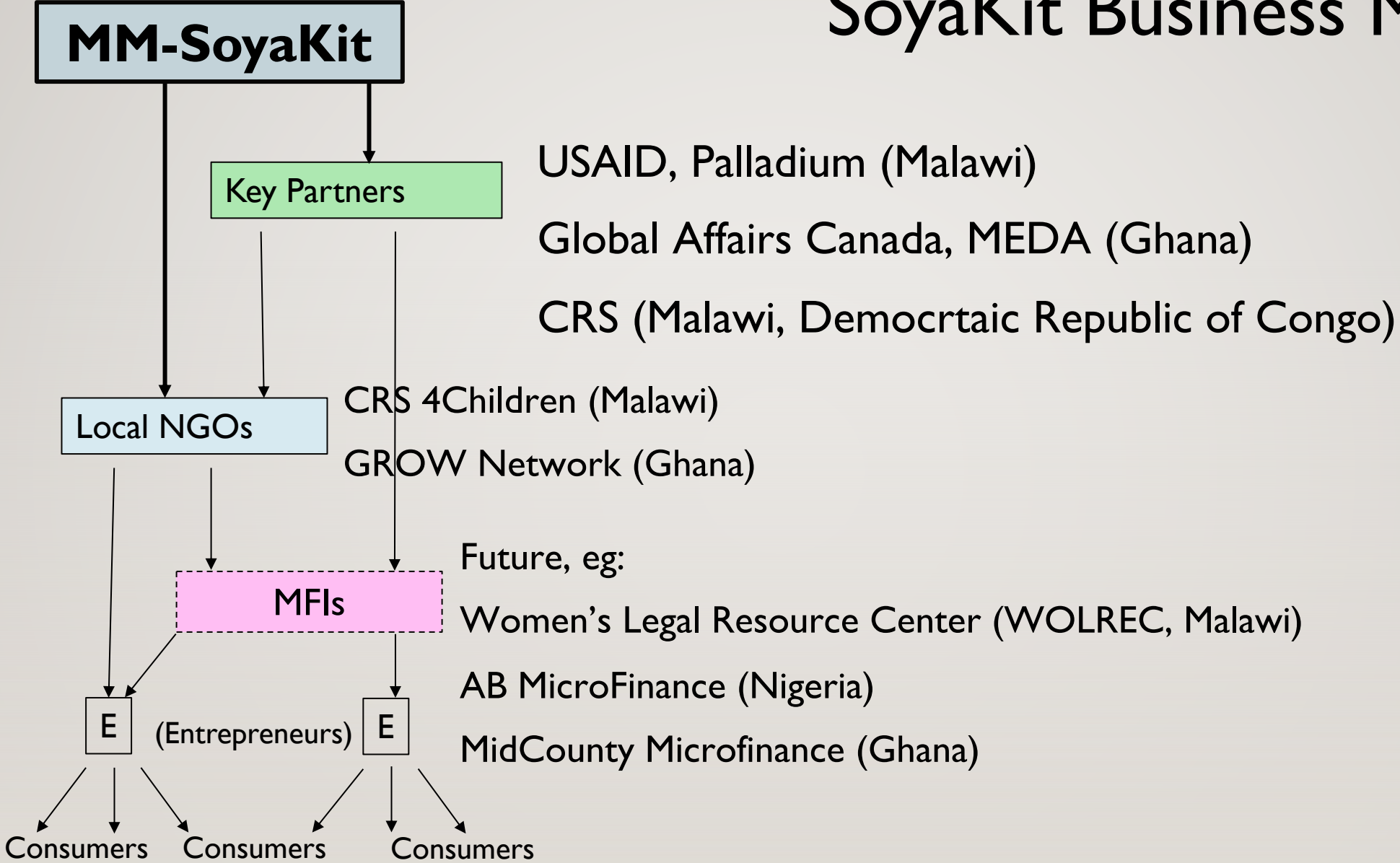
**That provides** time-and fuel-efficient, flexible, local production of affordable, tasty, high-protein food

**Unlike** laying hens or other risky animal husbandry, provides a low-cost, predictable, easily learned method, that can provide full- or part-time employment

**Our solutions** are high-quality and reliable, and have been used successfully for more than a decade



# SoyaKit Business Model



# Empower Women and Youth Entrepreneurs

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## SoyaKit – a great micro-enterprise

- Highly profitable
- Fast time to revenue, profitability
- Quick payback of micro-loan (as required)
- Much lower risk than agriculture or animal husbandry, environmentally friendly
- Grinder and cooking bag minimize production time and fuel use



Entrepreneur in Wa, Ghana showing fresh soymilk ready for sale

# CRITICAL SUCCESS FACTORS FOR SOYAKIT PROGRAMS

- Proper and thorough training on both food processing and products AND small business basics
- Ability of the entrepreneurs to minimize input costs, achieve product quality, and to understand, measure and maximize profits
- Ability of the entrepreneurs to experiment, produce diverse products and find markets for them
- Access to support for new entrepreneurs, including experience swapping and help from 'Achievers'
- Access to VS&L clubs or equivalent

# Malnutrition Matters Successes

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- 300 SoyCow and 260 SoyaKit installations worldwide
- 20 SoyCows in rural Malawi with Farmers' Clubs (DAPP)
- 18 SoyCows in Ghana, most funded by AfDB/IFAD
- 30 SoyaKits in Ghana funded by Global Affairs Canada (MEDA)
- Other sites in Africa funded by IITA, CGIAR, Gates Foundation, USAID, UNIDO
- 100 SoyCows and SoyaKit test site in North Korea (First Steps)
- 230 SoyaKits and 5 SoyCows in Malawi funded by USAID (Palladium)
- Innovative technology recognized by GAIN, Tech Awards, Nestle/Ashoka CSV Prize, Miller Center(SCU) and the World Bank

# THANK YOU

HART JANSSON, PRESIDENT

HART@MALNUTRITION.ORG



SoyaKit video: <https://www.youtube.com/watch?v=NnOtIj-U6KQ>

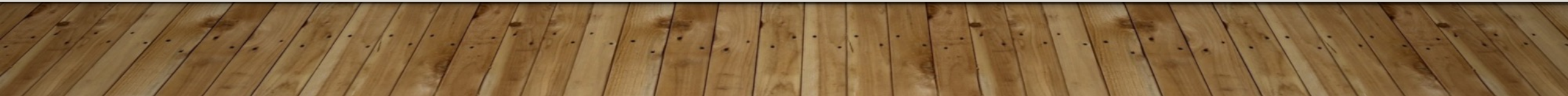
Website: [www.malnutrition.org](http://www.malnutrition.org)

MEDA GROW report: ([https://www.meda.org/growlearning/724-nutrition-and-food-security/file\\_pp\\_18,19](https://www.meda.org/growlearning/724-nutrition-and-food-security/file_pp_18,19) )

Sustainable Nutrition with the SoyaKit (detailed report)

Testimonials from Entrepreneurs

**BACKGROUND SLIDES FOLLOW**



# Malnutrition Matters Products

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- SoyaKit – 7 L / hr (\$200 wholesale, landed)
  - VitaGoat – 35 L / hr (\$5900 FOB Thailand), non-electric
  - SoyCow – 40 L / hr (\$5900 FOB Thailand), electric
  - SC-30 – 80 L / hr (\$11,900 FOB Thailand), electric
  
  - SolarFlex Food Dryer – 20 kg per day (\$1,300)
  - Solar Quad Food Dryer – 80 kg per day (\$5,900)
  - 3HP (elec) Food Dryer – 150kg per day (\$5,900)
- FOB Guangzhou



3 hours production

6 batches

	VOL (L)	COST	Rev	PROFIT
SOYMILK	<del>22</del> 22	<del>16.5</del> 16.5	44	<del>27.5</del> 27.5
YOGHURT	22	16.5	88	71.5
TOFU/KEBAB 180 x 2	3	10.5	24	13.5
PORRIDGE				
OKARA				
YOGURT BOTTLE	22	<del>37</del> 40.5	99	<del>62</del> 58

COST / PROFIT TABLE IS ENLIGHTENING WHEN CONSTRUCTED BY THE ENTREPRENEURS



(in Ghanaian cedis – about 5 to \$1 US)

# SOYAKIT VALUE CHAIN

