



# SoyCow & VitaGoat

Small-Scale Soyfood Technology  
for

Micro-Enterprise and Nutrition

# Why Small-Scale Soyfood Technology?

- On-demand production
- Local employment, particularly women
- Fresh Protein-rich Soyfoods - Safe Hydration
- Lower food cost vs. processed/packaged
- Sustainable, not dependent on food handouts



# Why the SoyCow?

- Variety of soymilk and derived foods:
  - Soymilk, tofu, soy yogurt, soymilk puddings
  - Soy-based pastes, spreads, gruels
  - Okara (soybean pulp) and okara-derived foods
- Safe Hydration
- Micronutrient delivery
- Electrical Operation - High Hourly Output

# The SoyCow

- Space required: approx. 10 feet x 10 feet
- Installs in 4 hours with basic electrical and plumbing
- Service life at least 10 years with proper maintenance
- Each SoyCow can feed between 500-1000 people/day
- Cost is between US\$ 3,900 – \$4,500
- Food production cost +/- 2-3 times less than animal protein sources
- Social institutions (schools, hospitals, orphanages, religious orders, senior homes, etc) and micro-enterprise applications



# Child Haven Int'l

## India, Nepal, Bangladesh

- 6 homes for children
- SoyCows in four largest homes
- Up to 400 children/home
- Daily servings of soymilk, soy yogurt
- Okara used in soups, sauces
- Safe hydration



# Chechnya - School



# Chechnya - Refugee Camp



# Brazil - Rotary Project



# “First Steps” Project North Korea

- Canadian NGO
- Well-connected with N. Korean contacts
- Support from Korean-Canadians +
- 4 SoyCows – 20 hours production / day
- Approx 3,000 L / day - 15,000 children
- 1 VitaGoat - Pilot and tech transfer model



# Wonsan North Korea SoyCow Plant

# Why the VitaGoat?



- Manual (non-electric) operation
- Any solid or gas fuel option
- No electric/water connection costs
- Electricity is often unavailable, unreliable or unaffordable
- Easier to fabricate locally
- Capability of milling flours, meal, nuts, etc. in addition to soyfoods as SoyCow
- Capability of processing fruit and vegetables



# The VitaGoat – Technology Transfer



- Designed for practical fabrication in developing countries
- MM to transfer without royalties or licenses
- Local fabrication and also training, service, spare parts, promotion
- Cost will be 50% lower - target under \$3,000 for complete system; <\$1,000 for cycle grinder)
- Shipping costs saving of over \$1,000
- Creates employment in technical sector
- MM experienced at technology transfers
- Technology transfer ensures sustainability



# 1st VitaGoat Technology Transfer Centre Songhai – Benin, West Africa

- Fabrication Center, Model Farm, Training Center
- Experienced and well-managed
- Agricultural equipment for UNICEF and others
- SoyCow experience – 7 years

# Doba, Chad (Africare)



**Soy milk Production**

## **Soy milk & Yogurt Sampling**



# Dinguiraye, Guinea (Africare)



**Soya Coffee**

## **Boiler Operation**



# Susundenga, Mozambique



**Building For VitaGoat  
Production**

## **First Soymilk Training**





**Thank You**