

Auburn University: Devin Yeomans, Andrew Singer, Chelsea Le.

Social Problem Addressed

The primary social problem addressed is Protein-Energy Malnutrition (PEM). The US National Library of Medicine states “PEM occurs when too few calories and/or protein are being supplied to the body because of malnutrition, and from acute conditions, such as infection, trauma, or organ failure.” PEM causes increased recovery time, muscle and organ degeneration, lethargy, decreased immunity, mental retardation and severe edema. According to LiveStrong and Gale Encyclopedia of Medicine, PEM in the United States affects 48% of hospital patients and up to 85% of institutionalized elderly. Internationally, PEM affects 925 million people, and according to the World Hunger Education Service, the majority of these groups are located in third world countries where PEM is most lethal. As a faith based organization, **FULL PURPOSE** seeks to also work with Unreached People Groups (UPGs) (ethnic groups who have never heard the gospel of Christ). The goal of **FULL PURPOSE** is to use the profits from the domestic business to address the nutritional needs of UPGs, in order to build relationships to then address their spiritual needs. **FULL PURPOSE** will begin its international work in Nepal, South Asia, where high PEM and UPGs overlap. As a secondary domestic focus, **FULL PURPOSE** will address social problems such as local unemployment (particularly among the ex-convict population) and disappearance of small farms in the Black Belt Region of Alabama.

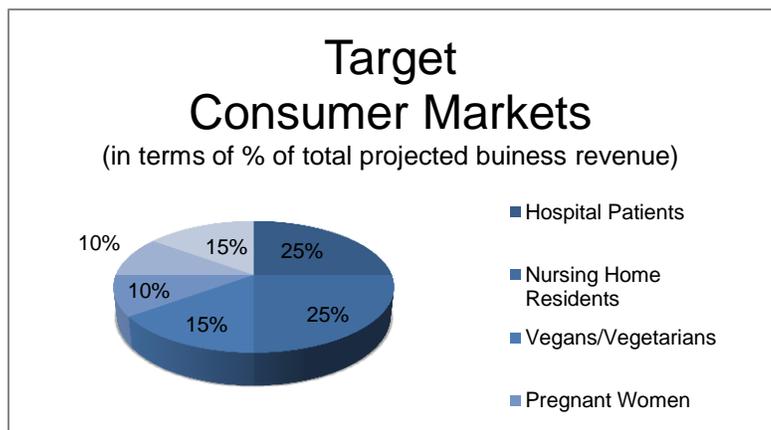
Proposed Solution

FULL PURPOSE will provide solutions for PEM in the US, using profits to provide microloans to UPGs with high rates of PEM in Nepal to support protein-yielding crops. **FULL PURPOSE** will partner with HERO, a non-profit in Hale County to identify and utilize the abundant sources of protein crops in western Alabama’s poverty-stricken counties. These crops will be used to create marketable products that will reduce the prevalence of PEM in the US. These protein sources include southern peas from local farmers whose farmlands continue to diminish due to the prevalence of commercialized agriculture. The University of Arkansas Department of Horticulture found that southern peas are high in folate, which is important in the prevention of anemia, cancer and birth defects. **FULL PURPOSE** will also use whey protein discarded by the Southeastern Cheese Corporation. The profits made from selling these two types of protein will provide microloans to Nepalese farmers in UPGs. These microloans will empower farmers to grow and sell protein-rich crops in their own communities to diminish the effects of PEM. **FULL PURPOSE** will partner with ECHO, a non-profit seed bank ministry that provides seeds and international agricultural information, to ensure the most protein-dense crops can be grown in the varied soils of Nepal and also can be easily incorporated into the Nepalese diet.

Market Analysis and Marketing Strategy

Existing organic protein markets are comprised of pea, whey, and soy protein businesses. The pea business market has little competition as it is small and in its early stages of growth and whey businesses mainly target healthy customers looking to gain muscle mass. The businesses selling soy protein supplements will provide the largest competition for **FULL PURPOSE** because those businesses target the same market. However, according to Scientific American, recent studies have shown that the hormones in soy cause harmful effects on reproductive development, making the soy market unstable.

Because hospitalized patients and the institutionalized elderly primarily suffer from PEM in the US, use of **FULL PURPOSE**’s whey and pea protein supplement will show a decrease in patient recovery time and an increase in the energy of the elderly while eliminating the potential



harmful side effects caused by soy. Vegans can also benefit from this source of protein.

These domestic markets will be reached through public speaking. Places such as entrepreneur conferences, new-mother classes, nursing homes, agricultural events, low-income nutrition education classes, and churches will be reached through this personal approach. Much like GW Carver’s success with the peanut, **FULL PURPOSE** will make their products appealing by inventing a variety of uses available, then distributing those uses through direct engagement, a website, and various social network pages. Community involvement and customer loyalty will be derived from recipe competitions and the eventual coffee shop that will be built to further customer connection. The coffee shop will sell baked goods that incorporate the two protein powders, and the design of the shop will display the impact the microloans have had in Nepal. For start-up purposes, the two protein powders will initially be sold through **FULL PURPOSE**’s website.

Financial Plan and Sustainability

[YEAR-ONE ESTIMATED EXPENSES]

Expense	Value	Quantity	Total
Liquid Whey	.17 per gallon	5000 gallons	\$850
Southern Pea	\$3.50 per lb	3000 lbs.	\$10,500
Food Shop License	\$130	1	\$130
Business Registration	\$162	1	\$162
Whey Liquid Transportation Costs	\$550	6 times a year	\$3,300 (estimated)
Machine - Whey Protein Dehydrator	\$10,000	1	\$10,000
Machine - Southern Pea Dehydrator	\$500	3	\$1,500
Employees (rate based on a living wage in AL)	\$16.53 per hour	8320 hours per year (?)	\$137,530
Power, Lease & Electricity	\$687 per month	12 months	\$8,244
Machine - Sealer	\$128	2	\$256
Packaging	\$93.47 per 1000 bags	6	\$561
Estimated Advertising & Traveling Expenses	\$4000 (year one)	n/a	\$4,000
TOTAL			\$177,033

- Liquid whey will be bought from Southeastern Cheese Corporation in Uniontown AL. 90% of the milk that they use for making cheese is discarded as whey. However, available whey depends on their output.
- Employees will be paid based on living wages rather than minimum wages.
- First year operations will take place in an already existing pie shop, Pie Lab in Greensboro, AL, therefore the electricity, power, and lease bills will be shared.
- All products will be packaged in biodegradable cellophane bags made of cellulose.
- Once ground and packaged, USAID claims that dried peas have a minimum shelf life of one year and whey protein has a shelf life of 9-12 months.

[YEAR-ONE ESTIMATED MICROLOAN EXPENSES]

Expense	Value	Quantity	Total
Protein-Rich Seeds	\$50 per acre	5	\$250
Traveling Expenses to	Donated by Churches		\$0

Nepal
 TOTAL PROFIT
 NEEDED

\$250

- Cost of seeds will vary according to type of seed determined by ECHO and amount of available farming land.
- Microloan Example: One acre of soybeans yields an average of 2,640 pounds (National Agricultural Statistics Service)

Impact Summary – Social Benefits

<p><i>Nepal Short Term Impacts:</i></p> <ol style="list-style-type: none"> 1. Increased nutrition education 2. Increased economic opportunities for small famers 3. Increased availability of protein-rich food sources 	<p><i>Domestic Short Term Impacts:</i></p> <ol style="list-style-type: none"> 1. Increased employment for the ex-convict community 2. Increased utilization of otherwise wasted resources 3. Increased opportunity for small farmers in the Black Belt Region
<p><i>Nepal Long Term Impacts:</i></p> <ol style="list-style-type: none"> 1. Decreased prevalence of PEM which will increase: <ul style="list-style-type: none"> • Educational achievements • Labor productivity • Economic growth 2. A solution to end in inter-generational malnutrition 3. Increased evangelism opportunities 	<p><i>Domestic Long Term Impacts:</i></p> <ol style="list-style-type: none"> 1. Decreased recovery time for hospital patients 2. Increased energy and stronger immune systems in the elderly 3. Decreased birth defects 4. Increased usage of small farms in Alabama 5. Increased employment in western Alabama

