For the past 10 years, NEI has been working to end protein-based malnutrition in Afghanistan particularly amongst women and children. In order to provide immediate nutrition to vulnerable populations living in impoverished areas, NEI established pasteurized soy milk processing facilities focused on humanitarian aid at five strategic locations: Herat, Faizabad, Mazar-e-Sharif, and North and South Kabul.

**NEI Vision and Missions**

To defeat malnutrition in Afghanistan which is a leading cause to the highest maternal and child mortality rates in the world.

To develop a self-sustainable soy industry and soy food culture as practical remedies to malnutrition.

**Why Afghanistan?**

Highest global infant mortality rate at childbirth (1 in 10)

20% mortality rate for children under five (1 in 5)

High maternal mortality rate at childbirth (1 in 80)

Afghanistan needs a viable cash crop with high protein to defeat malnutrition

**Why Soybeans?**

Malnutrition is a major factor in the high infant and maternal mortality rates in Afghanistan.

Malnutrition is synonymous with protein deficiency, and soybeans are a cost effective and rich source of high quality proteins containing 9 essential amino acids ideal for human nutrition.
SELF-SUSTAINABLE SOY INDUSTRY DEVELOPMENT
To develop a sustainable nutritional intervention, NEI has adapted an approach to build a full soybean value chain in a self-sustainable manner involving soybean seed multiplication, soybean production with farmers, soy processing and market development. Concurrently, a soy food culture needs to be developed to promote soy food consumption by the general public for increased protein intake, especially within the rural community where malnutrition is rampant among women and children.

2010 SOY PRODUCTION BY PROVINCE
Afghanistan had not produced soybeans until 2003, when NEI introduced them as a practical countermeasure to rampant malnutrition among their women and children in impoverished areas. Since then, NEI has been collaborating with the Afghan government, private sector, and farmers to increase and expand the soy value chain.

NEI collaborated with the Ministry of Agriculture (MAIL) and Afghan farmers to successfully cultivate soybeans in all 34 provinces in 2010. Two non-GMO soybean varieties from the USA were approved by the National Seed Commission for use by farmers. Ten new varieties have been tested in ten agriculture research stations since 2009 in order to increase the number of effective varieties in all seven agricultural zones of Afghanistan. Another 11 varieties will be tested from 2012 in order to provide soy farmers with more varieties that are adaptable to their climate and soil conditions.
**Soy Food Culture Development**

In soybean producing areas, Afghan women are now making soy naan a staple in the Afghan diet. Soy naan contains 10% soy flour and 90% wheat flour, which increases protein absorption by 110%.

NEI has also collaborated with the Ministry of Women’s Affairs (MOWA) in 10 provinces to train housewives on the health benefits and home use of soybeans, especially for pregnant and lactating women in impoverished rural communities.

Many people in rural areas now prepare and consume soy dishes, including soybean Korma (soup) and soy milk.

**Soy Processing and Soy Food Market Development**

Since 2007, NEI has been producing soy flour at its Kabul facility in order to not only provide protein nutrition to vulnerable populations in high mortality areas but also promote the soy processing sector development by local entrepreneurs.

In 2008, NEI established a full-fat soy flour factory in Kabul with a yearly processing capacity of 250 metric tons of soybean. NEI has distributed the full-fat soy flour and soybeans with home cooking demonstrations to more than 5,000 pregnant and lactating women in ten provinces of the central, eastern, and north regions.

NEI has also provided soy flour to other NGOs, such as Aga Khan Foundation, to support their nutrition campaign for pregnant women in Badakhshan Province.

This concept to build a soy flour factory and market development can be implemented with short-term visible results which will create a widespread and positive socio-economic impact in Afghanistan. NEI supports local partners technically so that they can experience soy food processing and marketing with proper nutrition messages. A desirable market for the soy flour has been identified.

The United Nations World Food Programme is also a NEI partner and will purchase almost an entire year’s production of soy flour from NEI in order to manufacture high protein soy biscuits for their school biscuit feeding program starting in 2013.
SOY MILK FEEDING PROGRAM
To provide immediate nutrition intervention for the vulnerable populations, NEI has established four pasteurized soy milk processing facilities in Afghanistan. Each facility is capable of producing soy milk to feed up to 2,000 women and children daily. This purely humanitarian program benefits women and children in refugee camps, blind and deaf schools, public schools in poor areas, orphanages, and hospitals. The majority of soy milk recipients show visible improvements in health conditions within three months of regular feedings. Recently, a monitoring and evaluation program to assess the health impacts of feedings on beneficiaries during a 12 month period was initiated in a Kabul public school, in collaboration with the Ministry of Public Health (MOPH).

CONCLUSION AND NEXT STEPS
With ten years of collaborative efforts (2003 – 2013) between NEI and its Afghan partners, including government agencies, the private sector, village leaders, farmers, and rural housewives, three soy facts have been established in Afghanistan:

1. Soybean grow well in Afghanistan.
2. Afghans like soy foods.
3. Afghans who consume soy foods become healthier.

The soybean has become a cash crop in Afghanistan and is officially endorsed by the Ministry of Agriculture, Irrigation, and Livestock (MAIL) as a rotational second crop to wheat in order to improve food security and develop the local economy in rural communities.

Encouraged by these developments, NEI and its collaborators have set a national goal of producing 300,000 tons of soybeans to defeat malnutrition by 2023. This quantity of soybeans will provide enough protein (80,000 metric tons) for 30 million protein-deficient people and, consequently, officially end malnutrition in Afghanistan. The NEI goal to eradicate malnutrition cannot be achieved alone; it is a partnership that requires supporters of all levels to ensure that no woman and child will perish before their time.
Steven Kwon, Ph.D.

Steven Kwon is founder and president of Nutrition & Education International (NEI). Dr. Kwon leads the overall direction of the organization, advocates for the empowerment of local staff and beneficiaries, and shapes NEI’s grant making strategy. Dr. Kwon volunteers his time, resources, and talents towards NEI’s mission of reducing malnutrition among Afghan women and children while also increasing the livelihoods of Afghan farmers. He travels extensively to find national and international partners to support NEI operations in the United States, Afghanistan, and Republic of Korea.

In 1982, he received his Ph.D. in Food Biochemistry from Ohio State University. Working as a research scientist for Nestlé R&D, Dr. Kwon obtained 13 United States and international patents in medical nutrition products and bio-ingredients. He continued with Nestlé as Principal Nutrition Scientist and Director of Technical Services where he was responsible for the innovation and development of medical nutrition products.

In 2003, he was invited to make a presentation on Nutrition for Afghanistan at Balkh University for students and local leaders and challenged to develop an intervention to the widespread malnutrition he saw afflicting Afghan women and children. After working in the private sector food industry for 22 years, Dr. Kwon took an early retirement and registered NEI as a 501(c)3 nonprofit organization in California.

Due to his experiences as a child during the Korean War and as a Vietnam War veteran, Dr. Kwon feels a connection to the people forced to live in the conflict emergency state of Afghanistan. His personal and professional experiences compelled him to believe that although soybeans had never been grown in Afghanistan, the high protein soybean was a hopeful solution.

Dr. Kwon's hope is that the country will grow the capacity to eradicate malnutrition in Afghanistan so that the people will be able to overcome the devastating effects of war and rebuild the country for the benefit of the entire international community.

He lives in California with his wife of 35 years who is an art professor and, together, they have two children. While each one has gone to Afghanistan as a volunteer for NEI, the family has yet to vacation there together.