Afghanistan: Developing a Self-sustainable Soy Industry for Malnourished Afghans

Afghanistan, also known as the Islamic Republic of Afghanistan, is a mountainous and landlocked country bridging Central and Southern Asia. The major religion of the country is Islam, and out of an estimated population of 31.8 million people, 80% are Sunni Muslims while 19% are Shia Muslims. As a result of the invading armies and several migrations in the past, Afghanistan is a country of ethnic minorities that include Pashtun, Tajik, Hazara and Uzbek. The climate is arid to semi-arid; the winters are cold while the summers are extremely hot (“Afghanistan”).

Afghanistan, often called “the crossroads of Central Asia”, shares its borders with six countries that include China, Iran, Pakistan, Tajikistan, Turkmenistan and Uzbekistan. Because of its strategic location, Afghanistan has had a turbulent history of chronic political and economic instability. In recent history, the Soviet Army invaded Afghanistan in 1979, immediately followed by a devastating civil war, and later in 1997, by official Taliban control. In 2001, a US-led invasion of Afghanistan overthrew the Taliban, but the group still has an influential presence, which has been a major ongoing concern both globally and domestically (“Afghanistan Profile”).

Nearly a quarter century of incapacitating conflict and unrest has led to slow agricultural growth and rural poverty. Although only 12% of its total land area is arable and the climate is not optimal for growing most crops, the Afghan economy is overwhelmingly agricultural. Over 75% of the population live in rural areas and are dependent on agricultural activities. However, the irrigation technology is still extremely primitive due to constant armed conflicts and lack of maintenance (“Afghanistan: Priorities for Agriculture”). The Afghanistan government estimates that 42% of the Afghans live below the national poverty line, and 20% are highly vulnerable to the risk of falling into poverty. Poverty is rampant in the country including the urban areas, but it is more austere in rural areas (“Rural Poverty”).

Even though there may be variations between different ethnic groups, undoubtedly, the family is the single most important institution in Afghan society. A typical Afghan family includes an average of four children and several extended generations; there also is a tendency to respect family elders, both male and female. However, if the eldest one in the family is female, a teenage son may have the authority to make family decisions. Characteristically, Afghan family structure is “patriarchal and endogamous” (Merrill, Paxson and Tobey). It is important to note that despite the prevalent gender inequality in Afghanistan, mothers are “highly revered and central to family life” (“Society and Norms”). Nevertheless, women are solely responsible for domestic responsibilities, such as cooking, cleaning and socializing the children, and are very rarely allowed to have jobs outside the house—women’s independence is highly discouraged and a family’s “social standing may suffer if a woman does not remain dependent” and subservient to her husband. Therefore, in the Afghan society that considers extreme gender inequality as a social norm, “without the protection of a husband, widows suffer from social exclusion”. The average age of the estimated number of 1 million widows is 35, 90% of them have an average of four or more children, and 94% of them are illiterate. Since the social customs prevent them from doing anything other than domestic work and discourage (prohibit, in conservative provinces) interaction with men other than family, many widows, in order to survive and feed their hungry children, are “left with no choice but to become beggars” (“Rural Poverty”).

In the Afghan diet, there is very little diversity. 75% of the typical rural Afghan diets consist of cereals, mainly wheat, popularly consumed in forms of naans or rice dishes. This poor dietary diversity results in
micronutrient deficiencies, which eventually lead to malnutrition, a serious problem in Afghanistan (“Eradicate Extreme Poverty”). Furthermore, the price of wheat flour has risen up to 47% in some cities in 2013, which severely affected the Afghan households (“What Does the Food Crisis Mean”). According to UN data, almost 40% of the children under the age of three are “moderately or severely underweight”, and more than 50% of children in that age group are “moderately or severely stunted”. In Afghanistan, chronic malnutrition is particularly tenacious and widespread, and as a result the country has one of the highest percentage rates of malnourished children in the world. Afghanistan also has the highest infant mortality rate of almost 12% (“Afghanistan Statistics”).

Malnutrition in Afghanistan is closely related to lack of education and inadequate health care access. Although more and more children are enrolled in school today compared to a few years ago, many children in rural communities still have almost no access to schools. Since the government focuses its funds in providing immediate relief to the malnourished population and in internal and external military conflicts, less than 20% of the budget is dedicated to education. Obstacles to education in Afghanistan include lack of funding, unsafe school environments, and cultural norms, as many parents do not permit their daughters to be taught by men. The lack of education continues a cycle of poverty common in many developing countries; therefore, there is a desperate need to improve the educational opportunities for rural children. Similarly, the healthcare system has also been suffering from decades of neglect and under funding. It is very rare for rural Afghans to have appropriate access to health care, and this is worse for females. Because the tradition of Afghanistan does not allow women to have contact with men who are not in their family, as briefly mentioned above, Afghan women have less contact with health workers, who are mostly men (“Afghanistan: Main Public Health”).

Most Afghan families live in a rural setting, and although their average landholdings are small, their main source of income comes from growing crops such as opium poppies, wheat, corns, cottons and potatoes or growing farm animals including cattle, sheep, goats, donkeys, camels, and horses (Northoff). Because most Afghan farmers barely sustain their family from growing legal crops, increasing number of farmers have been choosing to grow opium poppy instead. In 2013, the opium poppy production and cultivation in Afghanistan increased 49% compared to that of 2012. This not only poses risk on the counter-narcotics efforts of the government, but also is a concern regarding health, stability and development in Afghanistan and the international community (UNODC). Preventing the Afghan farmers from cultivating opium poppy is a challenge that has been going on since the early 1990s, and is a major barrier in improving agricultural productivity of legal crops and increasing the access to adequate nutrition.

Food is the most fundamental part of life, because without eating, no one can survive. Despite the international and internal efforts towards eradicating hunger, Afghanistan’s malnutrition crisis has been worsening in some provinces. In the war-torn provinces such as Bost, Kandahr, Farah, Kunar, Paktia and Paktika, cases of severe malnutrition, especially among children, have been increasing. Although a definite reason for this trend is uncertain, most professionals agree that war is a significant factor (Nordland).

One typical family that the NEI (Nutrition and Education, International) foundation has worked with is Safia’s family. Safia, who just turned seven years old, lives in Badakhshan with her caring mother, dying father, and two sisters. Her father was severely injured by a bicycle bomb that went off several days ago; although it is not uncommon to see the bombs go off in her village, Safia was shocked to see her father’s arm get separated from his body. Now that her father cannot work, Safia’s family gets by with the last jar of rice her mother had saved for emergency. Worse, Safia cannot go to school anymore because she needs to help her mom. Her mom has trouble even taking her father to a clinic because she is not allowed to have contact with men other than her family. She seeks help but most men in her extended family are injured too from the ongoing war. After four months, her father passed away due to an infection,
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and the family already finished the jar of rice her mom had saved. Safia, her two sisters, and her mom have no way to survive without work, without men in the family, and without food (Y. Bae).

All of the ongoing critical issues in Afghanistan such as rural poverty, food insecurity and malnutrition, lack of agricultural technology, underfunding of education and health care, and gender inequality, are closely linked to one another. In order to overcome these problems, a solution that encompasses all aspects of the problem is needed imperatively. A solution that will revive the devastated economy, develop a more diverse and healthier food culture, feed the countless starving malnourished children and adults through immediate and long term nutrition intervention, stimulate the production and processing industry, alleviate the problem of increasing poppy cultivation and support the counter-narcotic efforts, and finally, empower women by compelling both genders to work together to eradicate malnutrition, is necessary. There is a solution that can combat this complex issue: developing a self-sustainable soy industry in Afghanistan.

The idea of introducing a relatively ‘new’ crop to the agricultural economy dominated by opium poppy might sound obscure and unfeasible. Yet, soybean production has been steadily increasing in Afghanistan since 2003, when the soybean nutrition initiative was first developed by NEI. After the “successful cultivation testing of six non-GMO soybean varieties” in 2004, the Afghanistan government adopted NEI’s soybean program as a national project in eliminating malnutrition in 2005, and soybean was accepted as a viable 2nd crop to enhance food security in the rural areas (NEI).

In order to effectively address malnutrition in Afghanistan, in particular, for the rural poor, the soybean project must confront each aspect of the issue separately. There are predominantly four aspects to consider, as mentioned before: encouraging an active agricultural production of soybeans by motivating the farmers to grow soybeans instead of opium poppy, developing soy-processing factories and soy food markets for effective consumption of soybeans, providing immediate nutrition intervention to the malnourished rural population, and fostering a diverse and healthy soy food culture through empowerment of women.

For this project to succeed, the fundamental first step is to convince farmers to grow soybeans as a major income and nutrition source for their families. This inevitably involves convincing opium farmers to grow soybean instead. Unfortunately, there are many reasons why they choose to grow opium poppy. “There is no market for legal crops such as cotton and wheat” in many provinces (Azami) and opium poppy yields as much as four times the profit that average farmers make from any other crop (Carberry and Faizy). Also, some unethical officials and religious leaders in Afghanistan collect 10% tax from opium farmers, let farmers borrow their land to grow poppy, and “are always eager to claim a share of harvest income.” One Afghan farmer even asserted, “If the officials don’t care about the law, there is no reason for us to respect it.” In fact, the corrupt government continues making unreliable promises; officials once convinced some farmers to switch from opium poppy to cotton, promising to buy the harvested cotton at a high price, but never did (Carberry and Faizy). Worsening the opium poppy situation, around 3% of the Afghans are now addicted to opium themselves. (Graham-Harrison).

Nevertheless, opium is risky to grow, and it is not unusual for farmers to use five to ten guards to protect their poppy cultivation area, which is costly. In addition, opium poppy “requires a lot of effort to grow” and one has to “wait a long time to harvest” (Carberry and Faizy). On the other hand, soybeans are economical, legal, encouraged by the government, nutritious, and edible. Some might worry about the agricultural climate, but in actuality, Afghan climate is suitable for growing many soybean varieties. When harvested, soybeans can be consumed in various ways after a reasonably simple processing, and are very beneficial to health, as it will be discussed later on. According to the statistics of NEI, one ton of soy seeds yield up to forty tons of consumable soy. Moreover, the harvest from the ton of soy can provide 10,000 families of six with enough protein for three months. Not only that, but after the farmers nourish their families from what they harvested, they can sell the surplus to the soy flour factories. Another
noteworthy benefit of growing soybeans is that soybeans enrich the soil with their nitrogen-fixing ability, which can be especially attractive to farmers with depleted lands.

In relations to encouraging soy production over other crops, a suggested local project would be a demonstration of the detrimental effects of opium around the world. From the perspective of the Afghan farmers, opium poppy is considered a profitable illegal crop worth the risk of cultivating rather than a drug that ruins many people’s lives and families. Because family is such an important part of the culture, exhibiting the long-term effect opium has to the addicted individuals and their family life will emotionally and morally move them, when provided together with the education that emphasizes the benefits of growing soy. For instance, showing pictures or even documentaries of the effects of long-term opium use, which include heightened anxiety and mental deterioration (“Opium Effects”), and the impact one addicted family member has to the entire family dynamics, will be very effective in convincing the Afghan farmers. It will be more persuasive to have some representatives of soy farmers step up and discuss their soy cultivation attempts and the impact it had on their families’ lives. Although it is mainly the role of the NGOs to organize education programs and provide soybeans, the success of this part of the project largely depends on the Afghan farmers; they should be the one initiating the change and convincing each other.

In addition to appealing to the emotions of the Afghan farmers, soy cultivation should be seen as a safer and more profitable alternative of opium poppy. The Afghan government is notoriously unreliable and corrupt. However, that does not necessarily mean that they are incapable of making positive changes. The government has been responding to opium cultivation with violence and physical power, which infuriated the Afghan farmers and caused them to revolt (there has been an increasing number of reports of opium farmers retaliating to the government’s force with physical violence). The government, instead of recklessly destroying opium farms and threatening the farmers with force, should support them to switch to soy by offering soybean seeds and incentives of switching like offering discounted price of education for the soy farmers’ children. Obviously, financially incentivizing the farmers will be most effective, but it is unclear whether the corrupt Afghan government can carry out those policies reliably or not. Therefore, until the Afghan government can recover its diminished authority due to the regrouping of Taliban after 2001, the NGOs should help out by building local schools in rural provinces, providing soybean seeds to the farmers, and leading education programs and sessions.

Second, soy-processing factories and industries should be established to enable access to protein-rich soy flour and soy food products. This will also stimulate the economy suffering from the constant armed conflicts by creating a ‘soybean value chain’, which involves soy production, soy processing, demand for soy products, and soy market expansion (NEI). By introducing soybean to the economy, agriculture settings, and the markets, the unemployed population in Afghanistan will benefit from more job opportunities, especially in the soy-processing factories and farms, and eventually the cycle will become self-sustainable to the point that Afghanistan will no longer require foreign assistance to feed its population.

Cooperation between the international organizations is the key to expanding the soy market. Because Afghanistan has been a target country of several nonprofit and humanitarian organizations, if the effect soy food have in the local economy and the health conditions of the Afghans is widely publicized through various collaboration projects and programs, there will be more financial interest and support. Furthermore, when the market for soy food expands, more and more Afghans will become aware of the benefits of consuming soy products, which will in turn result in increased number of soy processing factories and industries and more demand for soy products.

Third, empowering Afghan women to help cultivate a healthy soy food culture could be of utmost importance in fighting against malnutrition, infant and maternal mortality, and gender inequality. As
mentioned before, Afghan widows greatly suffer because they have no income. As modelled by the MoWA (Afghanistan Ministry of Women Affairs) and NEI’s collaboration project that trains widows to use soy as a source of personal income through holding health seminars and home cooking demonstrations, Afghan women have so much potential in their roles in contributing to end malnutrition. Using the traditional customs of identifying women with domestic roles as an advantageous leverage, women in Afghanistan could be involved in developing new ways to consume soy in addition to soybean Korma (soup), soy biscuit, tofu, soy palao, soy naan, and soymilk. In a country like Afghanistan where women has a lower social status and almost no social mobility, soy can not only empower them to take an active role in a transnational issue like malnutrition, but to also feed countless malnourished rural Afghans.

A main concern of some people regarding this soy project is that Afghans might not like the taste of the soy products. Afghanistan is a country with a distinct food culture; soy is a relatively new ‘flavor’ for the Afghans. Developing vibrant soy cultivation is important, but creating soy recipes that Afghans love is equally important. Since it is in human nature to prefer food with more familiar taste- the Afghan women should provide their insights about the taste (since they are the ones who cook) and develop an optimal ratio of wheat and soy so that the soy recipes do not taste completely foreign. A proposed program for the government and the NGOs is that they could provide some soy flour to rural Afghan households for them to experiment and create a soy recipe they like. If the Afghan women succeed, that will contribute significantly to the soy project and in turn motivate more Afghan farmers to grow soy. Moreover, many Afghans actually prefer the taste of some soy recipes to traditional ones; for example, because soy naans are soft and stay fresh longer, Afghans like them better than traditional naans.

Finally, immediate relief of the hungry and malnourished population can be achieved via feeding programs targeted to mothers and children. As urgent it is for the Afghanistan government to implement a viable long-term solution, it is equally necessary to nourish famished Afghans and save them from chronic malnutrition. Soybeans are an excellent source of protein and contain nine essential amino acids as well as healthy omega-3 oils and fiber. Soybeans have a high concentration of calcium that promote bone health; they are also known to contain isoflavone, a substance similar to estrogen, which can help ease symptoms of Menopause and minimize the risk of osteoporosis. Therefore, it will largely benefit the young mothers and starving children. An example of the local project would be a soymilk feeding program, already put into action by several nonprofit organizations striving to alleviate hunger. One pasteurized soymilk facility can feed 2,000 women and children daily, and continued feeding of soymilk visibly improves one’s health condition (NEI). Financial support of the Afghanistan government, government of other countries, international organizations, and even the individual donors will make a pronounced difference in improving the underfed Afghans’ health.

Besides the soymilk feeding program, an education program of the mothers could be scaled up successfully. Afghan mothers, although they undergo serious gender discrimination outside the domestic boundaries, have considerable influence over their children. If the Afghanistan government recognizes the importance of the role women can play towards eradicating malnutrition, and organizes education programs for the Afghan mothers about the benefits of soy food and the importance of maternal care, the local population will be more accepting and open to the external feeding programs and efforts. Many Afghan mothers opt not to nurse, preferring water to breast milk- as they are undernourished themselves- but by educating them of the importance of what to feed their children, the program could possibly decrease the infant mortality rate. Also, the local community can be actively involved in this process by encouraging some Afghan women to become the ‘ambassadors’ who take charge of educating the women in their local area or town through holding private, small scaled sessions. Because of the deep rooted social customs of forbidding women from taking a public role, succeeding in motivating the women to step up will greatly contribute not only to fighting fixed gender roles but also to alleviating hunger within the country with minimum external assistance.
This way of addressing malnutrition in Afghanistan through implementing a self-sustainable soybean industry inevitably involves individuals, families, local communities, the local government, the national government, and international relief organizations. Cooperation between them is what will determine the success, as without the financial support of bigger governing structures, or inversely, the cooperation of farmers, families and local communities in a smaller scale, nothing could be achieved. Thus, soy can be what connects and compels the diverse communities in Afghanistan together.

When Safia’s family was suffering without food and a decent job, a woman in her neighborhood who had attended a soy food cooking session reached out a helping hand by providing them with some soy flour and teaching them the soy recipes she had learned. After her kind neighbor saved her, Safia’s mom found hope and began weaving carpets, tailoring clothes, and growing a few goats. With the miniscule profit she makes, she manages to buy soy naan and make soy korma for her children. Fortunately, a soymilk and soy biscuit feeding program began in her village, so her children avoided serious emaciated condition too. Safia and her family are considered extremely fortunate compared to other widow-headed households (Y. Bae). However, there could be many more families like Safia’s family in the near future if the soy project expands.

The most crucial factor to consider when helping to eradicate malnutrition in any developing country is whether the project eventually is self-sustainable or not. Although foreign aid and the efforts of organizations across the world contribute to feeding the malnourished population, it is not a permanent solution. Along with these immediate relief efforts to ease the current situation, a long-term solution is needed. This is why developing a self-sustainable soy industry in Afghanistan is paramount in ultimately decreasing Afghanistan government’s reliance of foreign support. Regarding the malnutrition crisis in Afghanistan, NEI has played an indispensable role in introducing soy to Afghanistan’s agricultural industry and economy, leading various training and education sessions, establishing several soy processing facilities, feeding the starving Afghans with protein-rich soy products, and much more. Setting NEI’s footprints as an example, more interest and involvement of various organizations is crucial. Hopefully, with the soybean project, less and less Afghans will be hungry and undernourished, eventually breaking out of the cycle of poverty.

Bibliography


Bae, Young Deok. Personal interview. 7 July 2014. Dr. Bae is a Rheumatology specialist who visited Afghanistan in 2007 to provide medical service to rural Afghans.


