Case Study – Development of Mongolian Wild Blueberry Opportunities Harnessing the Demand-Driven Market opportunities to involve the private sector in Economic and Social Development for Indigenous Crops

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Abstract:

The Northern territories of Mongolia have changed little from the days of Genghis Khan. The Nomadic people of the region continue to utilize their land resources as grazing land for their horses, sheep, yaks, cattle and goats. With no recognized individual ownership of land Mongolia agriculture is limited to grazing and seasonal crops. The land suffers from the tragedy of the commons with each nomadic family moving two to three times a year for new pasture leaving the old pastures in worse condition than when they arrived.

The nomadic traditions of Mongolia make sustainable agriculture beyond herding a challenge which would require considerable changes in law and customs.

The forests of the Mongolian north provide a wild blueberry crop which has gone greatly un-harvested due to limited domestic demand and unrecognized export demand. In the spring of 2006 USAID supported a team of Japanese buyers to visit the growing area for wild blueberries in Mongolia.

The Japanese buyers purchased up to 20,000 cases of Mongolian Wild Blueberry Jam from the 2006 harvest and will work with USAID and the private sector in Mongolia to explore the opportunities for Mongolia to harvest and process the blueberries into dried or powdered forms for future exports.

This study is a prime example of what can occur when the private sector works with development agencies and the government to accomplish mutually beneficial objectives. Sustainability depends upon the private sector involvement.

EXECUTIVE SUMMARY

Few places on Earth are as desolate and isolated as upper Mongolia near Lake Hovsgol, a region where the average mean temperature in January is minus 32ºC coupled with no economically significant resources. In this area there are few villages and most of the resident population is nomadic, moving their herds with the seasons and availability of grazing land.

Faced with the challenge of providing a better quality of living for the people of Mongolia the government is faced with seemingly insurmountable challenges. To support the governmental efforts, U. S. Agency International Development (USAID) has a number of programs in Mongolia ranging from assisting in improving the transparency and accessibility of the government to supporting business development.

In Mongolia during October 2005 I discovered a locally produced wild blueberry jam at an Ulaanbaatar (UB) market. Realizing that world demand for blueberries exceeds the available supply, I queried about the local crop and learned that it was estimated that only 2% of the available berries were harvested annually due to limited demand.

Subsequently, I visited several companies in Japan to discuss market opportunities for Mongolian products. I received an overwhelming interest in blueberry products with a solid inquiry for 2,800 cases of blueberry jam for immediate shipment based upon the price that I received from the producer in Mongolia. Learning that there was insufficient product to meet this demand, yet an un-harvested crop and excess labor in the region, we realized that there was an opportunity for profit to be developed.

For economic development to be sustainable it is critical that the companies and individuals involved continue to make a profit when support comes to an end. The Japanese companies that I met with expressed their interest in cooperating to develop this opportunity. They each felt that having the ability to offer Mongolia wild blueberry products would provide them with significant competitive advantages over other sources of blueberries.

USAID Economic Policy Reform and Competitiveness Project (EPRC) began their work to develop a supply chain capable of meeting the demands for quality and volume of the customers. With a firm commitment from a buyer for the final product, the chances of success and sustainability justified USAID and local participation. In May 2006 I traveled to Lake Hovsgol with two buyers from Japan to review the opportunities and determine if there was sufficient supply and technology to provide the customers with product to justify their commitment to the project. On this trip we started the process of exploring the concept of producing other value added products from the available blueberries including dried blueberries, blueberry powder, and IQF frozen blueberries.

The development of an economy associated with the Mongolia wild blueberry crop will help achieve the economic objectives of the government of Mongolia by helping to improve the

standards of living for the local populace without changing their lifestyle or requiring them to give up their centuries old traditions as nomadic herdsman.

This case study documents the efforts, successes and failures of the development of sustainable economic activity around the Mongolia wild blueberry crop. With one harvest season currently working its way through the supply chain to the customer in Japan it is too early to determine the ultimate sustainability of this effort, however, the lessons learned through this effort to date can help others achieve success and sustainability in similar situations.

General Facts	
Country:	Mongolia
Region:	Lake Hovsgol
Program:	Economic Policy Reform Competitiveness
Funding:	United States Agency for International Development (USAID)
Year:	2006 to present
Company:	Pacific Trade Japan – Beneduct Mongolia
Participants:	• Nomadic Herdsmen of Lake Hovsgol Region Mongolia • U. S. Agency International Development (USAID) • Jim Krigbaum, marketing specialist, USAID/2020 Development Company LLC consultant • Norio Ide, President HealthNet Japan, a Tokyo, Japan -based importer and distributor of natural and Healthy products • Dr. Junichi Uno – Food Processing and Sanitation Expert – Tokyo Japan • Jigjidmaa Dugeree – Marketing Specialist – EPRC Project USAID Mongolia

Overview – Environmental factors

The environment in the Lake Hovsgol region of Mongolia has suffered greatly from the tragedy of the commons. With private property non-existent the resulting lack of resource management has left nearly all of the Mongolian landscape over grazed, over utilized and suffering from desertification, erosion and degradation as a seemingly unchangeable fact.

The nomadic lifestyle of nearly two thirds of Mongolian citizens coupled with common ownership of the natural resources has kept agricultural production limited to a few annual crops (that can be protected from wondering herds) and herds of livestock that continue to be relocated to greener pastures when the current area becomes over grazed or otherwise unproductive. With no incentive or protection for private investment, the planting and management of perennial crops and fixed facilities is nonexistent.

Sustainable economic development and growth in Mongolia is difficult due to several factors including the environment, the location as a landlocked country between Russia and China, and years of suppressed education, entrepreneurship and incentive under the Communist system. In the area around Lake Hovsgol these factors are amplified by the lack of investment in infrastructure which puts transportation between Lake Hovsgol and Ulaanbaatar a rough 1200 kilometers across valley floors with few paved roads and facilities and inconsistently scheduled flights.

Overview – Market opportunities and first steps

The global demand for blueberries has increased significantly in recent years due to the health benefits of blueberries in the diet including their anti-oxidants and cholesterol reducing benefits. Finding a customer to buy blueberries was not a difficult thing. Many buyers that I talked to wanted to purchase more blueberries than they currently had offered to them.

Getting the blueberries in an acceptable condition to the buyers at a competitive price was identified as the real greatest challenge finding customers was not going to be a problem.

Sustainability of development efforts are greatly enhanced when the private sector is involved from the beginning of a project therefore I set out to identify a buyer that I believed would be willing to take a risk on an unproven product from a primitive packing situation and introduce it into the toughest market in the world – Japan. I identified Lingzhi Technical Institute and Pacific Trading Japan as two companies that were willing and able to source product under these conditions. Lingzhi Technical Institute indicated that based upon the current price and the representative quality of the samples they had seen they were willing to commit to 20,000 cases of product and another buyer had immediate demand for 2400 cases.

By identifying a buyer prior to investing in production and processing we were able to eliminate the risk of producing a product without demand. We were able to integrate the specific demands of the client and to get their cooperation through every step of the process. We also understood a successful program would provide sustainable income to local herdsmen who have historically had few income opportunities without leaving their ancestral lands or selling their herds.

The processor had a risk of producing 20,000 cases for the Japan market because if the quality did not meet the demands of the market they would have product far exceeding local demand. The processor had to commit to the jars and packaging materials well in advance of knowing if the product was going to be acceptable to the market. To help mitigate this problem the buyer provided a pre-processing payment to the local processor to support the supply chain. This agreement between the processor and the buyer ensured that the needs of both the producers and buyer were met; resulting in a win/win marriage between buyers and producers, which provides for the sustainability of this business.

This case study reflects how private and public entities can join together in a demand-driven environment to achieve mutually beneficial, sustainable results providing a harmonic marriage to achieve social and economic development.

IMPLEMENTATION

Step 1: Opportunity assessment

To determine if there was in fact sufficient product available for a commercial wild blueberry processing industry, a trip of discovery needed. In May of 2006, accompanied by two representatives from importers in Japan, I traveled to the Lake Hovsgol region of Mongolia. The blueberries were not growing on the bushes yet; however, we were able to determine the potential of the crop, the system for harvesting and processing. We took the trip as soon as the snow had melted as we realized that if modernization needed to be done to processing technology or supply chain in time for the 2006 harvest, we would have to be accomplished prior to harvest beginning in late August.

The buyers "invested" in this trip by providing their staff to make this trip. In most USAID, and other development projects, this work would have been accomplished by consultants with technical knowledge of blueberry processing but with no authority to purchase product or conclude business. Having businesses involved at this stage allowed the project to save money but more importantly we had buyers that from this point forward were vested in the success of this project. For this trip the private sector paid for the time and local hotels for their staff while USAID funded the travel and transportation for the buyers. By subsidizing the private sectors costs for this research they were able to justify the expenses while without this support they would not have made the trip and the opportunity would have been lost.

Factors that we were reviewing on this trip included:

- ✓ Available crop and accessibility to processing facilities
- ✓ Limited processing technology and experience
- ✓ Unskilled labor
- ✓ Distance from markets
- ✓ A limited number of crops that could be produced effectively and delivered to market
- ✓ Experience locally in producing crops
- ✓ Existing processing plants and market apparatus
- ✓ Comparative advantage in producing crops for the market beyond the local market
- ✓ The need to produce something with local and domestic demand in the absence of a broader market or unmet international standards
- ✓ A crop that minimized the need to introduce new techniques and was quickly adaptable by the local producers
- ✓ Ability to get harvesters in the region to harvest this natural and wild crop

Product identified filling most requirements above

An international market existed for all formats of wild blueberries. Global demand has recently exceeded available supply due to the promotion of blueberries as a high source of anti-oxidants. Blueberry consumption on a global basis has continued to grow, however, demand in Mongolia was limited due to several factors including; (1) limited cash income; (2) limited ability to transport and store fresh product; (3) limited demand for fresh fruits; and (4) limited knowledge of the benefits of blueberry consumption.

The limitations stated above kept fresh blueberries from entering the market in commercial quantities. Local processing companies developed limited domestic markets for blueberry jam and blueberry liquor. It was estimated, however, that this local demand consumed only about 5% of the available wild crop.

After the review of resources and opportunities blueberry jam emerged as the easiest product to process and introduce into the global market. The factors which contributed to this conclusion include; (1) blueberry jam is shelf stable and therefore can be stored and transported without a problem; (2) a domestic market existed in case production did not meet international standards; and (3) processing expertise already existed in Mongolia.

With a low wage rate and abundant crop, Mongolia could have a competitive advantage on greater value added products.

Step 2: Develop processing procedures and protocol for jam production

To develop a protocol for sanitation of blueberry jam production in Japan the EPRC project hired Dr. Junichi Uno from Japan. Dr. Uno had represented Lingzhi Technical Institute/HealthNet Japan during the May visit and therefore had the respect of the buyer. Dr. Uno's role was to develop standards and to transfer this technology to the pickers, handlers and processors of the berries. Prior to harvest beginning, Dr. Uno developed the techniques and protocol that would take the production of blueberry products in Mongolia from a primitive industry to one which produced a product that would be accepted around the world as a sanitary and safe product.

In July 2006 before harvest began, Dr. Uno returned to Mongolia and transferred the technology to the local staff of the processor Beneduct. Dr. Uno and other representatives of HealthNet Japan returned to Mongolia on several occasions to ensure that production procedures were met and that quality reached minimum standards for brix, foreign matter (stems) and acidy were achieved.

The assistance of Jigjidmaa Dugeree – Marketing Specialist – EPRC Project USAID Mongolia – was critical to the success of this effort. By acting as the translator, mediator and messenger between the Japanese buyer, the Dr. Uno (technical assistance) and the processor (Beneduct) this

business would have failed to survive even before the harvest began. The role of the development industry as a conduit and facilitator of trade between two businesses from different cultures and with different experiences, expectations and expertise is critical.

Japanese businesses have limited exposure to business in Mongolia and likewise Mongolian businesses have little exposure to Japanese business practices and customs. The expectations of both parties going into a relationship, like the one which has been developed between HealthNet and Beneduct, often appear to be very far apart, while an individual with the role as that performed by Jigjidmaa is critical.

The fact that USAID, the EPRC project and the individuals involved with putting and holding this relationship together did not profit from the individual transactions kept their role as a non-bias facilitator was critical to the project's success. By maintaining neutrality and respect of all entities involved Jigjidmaa was an honest broker in the relationship.

Step 3: Organize Supply

In September as the crop began to arrive in UB from the Lake Hovsgol area. Dr. Uno returned to UB to work at the plant to ensure that the protocol he developed was applied and that the resulting product met with his buyers expectations.

Jigjidmaa and the EPRC program worked with Beneduct to ensure that the needs of HealthNet were of constant focus of the Beneduct team. With this being a "wild" crop the harvest time was fully unpredictable with different sides of the hills becoming ripe at different times of the season. Constant dialogue was maintained between the harvesters, collection sites, transportation and processing and the Japanese buyers.

Step 4: Assessing problems and identifying solutions and new opportunities for future seasons

The first shipments of Mongolian blueberries to ship to Japan will occur in early 2007. The level of production did not meet the demands that HealthNet Japan had forecast. The sales in Japan should begin to occur toward the end of the first quarter of 2007. The author and Dr. Uno will continue to monitor the market in Japan to receive feedback and input from Japanese consumers which can be utilized to improve the product in future years.

Dr. Uno remains concerned about the amount of stems which remain after processing and Beneduct struggled with the de-stemming process and costs associated with the labor to de-stem. There is also concern about the sustainability of the crop. Additional research will be done on how other processors remove the stems and this information will be provided to Beneduct directly and through the USAID project.

With success obtainable with the first effort of exportation of Mongolia wild blueberry products, the focus switches to a study of the feasibility of value added blueberry products. USAID and the private sector are supporting the business studies necessary to determine the economics associated with production of various blueberry products including dried and powdered blueberries.

BEST PRACTICES

There were several essential elements to the successful coordination between the public and private companies in sustainable development. These elements are important to consider as this effort matures and for replication elsewhere.

1. *Demand driven:* Export of Mongolian wild blueberries was ultimately successful because a buyer in Japan viewed it as a potentially profitable venture and submitted a purchase order to a Mongolia processor accordingly. USAID/EPRC facilitated the process through strategic interventions to lower initial transaction costs and reduces the risk incurred at each level of the market chain.

2. *Cooperation:* The private sector worked with USAID/EPRC and NGOs to build synergies based on mutually beneficial interests.

3. *Start with a buyer:* At an early stage buyers were the driving force for the development of the supply chain.

4. *Sustainability through profit:* Profit is the motivator and the glue that holds opportunities together after support funding ends. USAID/EPRC played a major role in catalyzing the initial steps for export success. However, project assistance becomes less and less necessary as long as profit exists for buyers and sellers at each level of the market chain.

5. *Importance of a honest broker* – without a honesty broker, who profits is not tied to the transaction but are compensated for their assistance in facilitating the transaction, this and similar transactions and development efforts are doomed to fail.

LESSONS LEARNED

Development projects do not end with a consultancy but require businesses to advance the work begun by the development efforts. The role of performed by a development project oriented to business development, competitiveness and open trade can be a valuable role for both buyer and seller.