Exporting Canadian Lentils to Nepal Report

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AGR*1110

Lab Section Wednesday 8:30 a.m.

Introduction:

In the search for the perfect item for Canada to export to Nepal, it has come down to one item, lentils. To be more specific Canada should export packaged red lentils to Nepal. These lentils will be produced and processed in Canada, transported to Nepal to be sold at their local markets, and then purchased and consumed by the Nepalese. By exporting lentils it will benefit both nations in a plethora of ways. There are challenges that will need to be address, and opportunities that will need to be looked at.

Part 1: Analysis of Effects to Canada

Background Information on Lentils:

The item to be exported is packaged red lentils, some basic information on lentils are: they are similar to beans, and are the seeds of leguminous plants (Barber, 2001). Lentils are a cool season monocot plant (Government of Canada, 2013): that are very drought tolerant (Carr, 2014), so they do not require much irrigation for production. Since lentils are legumes they are a good source of protein, iron, many other essential vitamins and minerals, and fibre, while containing low amounts of fat and zero amounts of cholesterol (Government of Canada, 2013). They are so healthy in fact that they are considered a superfood, and offer various health benefits; such as reducing heart disease (Fitzpatrick, 2014). For the most part all types of lentils have the same or very similar nutritional value, the only real difference when it comes to the types of lentils is their size and colour (Kerns, 2014). Table 1 in the appendix offers more insight on the nutritional value of red lentils.

Lentils originated in West Asia and have been consumed by humans since the ancient times, around sixty thousand years ago (Carr, 2014). From then because of their usefulness they

have been brought along where ever humans decided to migrate to (Carr, 2014). The most popular variety is red lentils (Vandenberg, 2010). Ironically enough the colour of the seed coat of red lentils can vary from black to green (Vandenberg, 2010). Another fact about lentils is that they have a relatively long shelf life of two to three years after harvesting (Vandenberg, 2010). This is good because it gives time for the transportation to get the product to Nepal, and also gives the marketers time to sell the product.

As for Canadian lentils, ninety nine percent of all lentils grown in Canada are grown in Saskatchewan: The other one percent is split between Alberta and Manitoba (Pulse Canada, 2014). In the Prairies they have the optimal environmental conditions for growing, which is cool and dry conditions (Pulse Canada, 2014). In Canada the two main varieties of lentils that producers grow are large green and red lentils (Pulse Canada). Other varieties can grow in Canada though they are less common (Pulse Canada, 2014). This is because most of these lentils are contracted by companies and so get to dictate what variety they would like the producer to grow (Chen, 2014). Furthermore, Canada is one of the world's greatest producer and is the world's largest exporter of lentils (Vandenberg, 2010). Today Canada exports lentils all over the world particularly to the Mediterranean area (Vardenberg, 2010), though also to India and China (Khan, 2014). In Canada, the lentil industry is a quite large industry, valued at three billion dollars, which is still expanding (Pulse Canada, 2010).

Mechanics of the Operation:

For Canada to export lentils to Nepal several obstructions must be resolved. The first task that should be done is surveying the market place (Surveyonics, 2011). This will help obtain more accurate information needed before the trade agreement is made (Surveyonics,

2011). This basic information gathered would be about: How much demand is there for the product? How competitive is the market place, and what is the cost of the competitions' product? In general this information would indicate; if exporting lentils is a good idea? How much product should be exported? Also how much cost can go into getting the lentils to Nepal, where they will still be price competitively to other products?

After the surveying is completed, and that it is determined that exporting lentils is a good idea, then a trade agreement is needed to be set in place. The company required for this task is Export Development Canada, or EDC. The EDC is a Canadian company based in Ottawa that assist companies in creating new trade agreements, deals with all the legal documentation, and helps handle any other legal issues (Export Development Canada, 2014).

Secondly, producers are then needed to grow the product. Most lentil producers are contracted (Chen, 2014). This is very beneficial because farmers are able to know in advance of the price they will be paid for their product. So they are able to calculate profit margins and how much they are able to spend on production (Agriculture and Consumer Protection, n.d.). Another way contracting is beneficial is that it reduces waste, since the company the farmer is contracted with can control how much product they require, to match demand (Agriculture and Consumer Protection, n.d.).

The third obstacle is processing and transporting the product. The company for this job is Agricorp International. They are a Singapore company that specialize in the processing and transportation of speciality crops, in particular pulses (Agrocorp, 2014). They are a well-established company, with various processing plants in Canada, and work with Canadian producers to deliver high quality product around the world (Agrocorp, 2014). They have offices

all over the globe, including offices in Vancouver, and one located in India (Agrocorp, 2014). This will be an advantage when forming an agreement, and for communication purposes, since as already mentioned, Nepal is close to India. In addition to this, Agricorp International already exports Canadian lentils to India (Chen, 2014). So getting the lentils to India will be no problem. The lentils will be transported by train from a processing plant in the Prairies to a port in British Columbia (Agricorp, 2014). From there they will travel across the Pacific until they reach a port in India, for example Nhava Sheva (Chen, 2014). From there another company is needed to get the lentils from the port in India to Nepal.

A company that could get the lentils from the port in India to Nepal is the UPS. They are a courier company that can handle freight (UPS, 2014). They operate all over the world including in India and Nepal (UPS, 2014). They can get the product from any port in India to Kathmandu, the capitol of Nepal (UPS, 2014). Once in Kathmandu, local transport will be required to get the product from there to local markets in rural and urban Nepal.

Benefits the Canada:

Exporting package red lentils is beneficial to Canada in many various ways. The first way it benefits Canada is through job creation. Exporting lentils to Nepal increases demand for the product, with increased demand this leads to an increase production of lentils, and therefore more jobs (International Trade Administration, 2014). It would create permanent and temporary jobs for Canadians. The temporary jobs this would create are for the people to work on the creating the trade agreement, and surveying in Nepal, finding information needed to maximise profit while being the most efficient. The permanent jobs this would generate would be in production, processing, and transportation, of the product. These are just the direct jobs this

trade agreement would make. In addition, indirect jobs would be generated out of this agreement. With increased production of lentils, seed and genetic companies would begin more research and development into improved seed. The same can be said with farm equipment companies, with more demand for specialized equipment directed to the production of lentils, more research and development of machinery would occur.

The second way this trade agreement benefits Canada is by helping the environment. With increased demand for lentils, it will encourage farmers to grow more lentils, which will benefit Canada's environment (Pulse Canada, 2014). Lentils are legumes and therefore do not require nitrogen fertilizers (Pulse Canada, 2014). This reduces the amount of fertilizer run off and total amount of energy required to grow a plant (Pulse Canada, 2014). In addition, it also decreases the amount of nitrogen fertilizer needed to grow another crop the next season (Pulse Canada, 2014). When the lentils are harvested the remnants are high in nitrogen. Over time, as the remnants break down it will release this nitrogen into the soil. The soil will absorb the nitrogen where it can be utilized by another crop, for example corn (Pulse Canada, 2014). With the farmer growing lentils and another crop with reduced amounts of nitrogen fertilizer required, this means less cost is needed for production, and more money in the farmers' pocket (Pulse Canada, 2014).

The third way exporting lentils benefits Canada is by stimulating the Canadian economy. Exporting lentils will bring in revenue to the Canadian economy, and will bring in money to the companies involved, which are Canadian companies. These companies will spend this income in Canada, again supporting the Canadian economy. In addition to this, exporting lentils to Nepal will strength ties between Canada and Nepal, which could open the door for other trade agreements, benefiting Canada even more.

The last way that this trade agreement could help Canada is by causing more trade agreements with other nations. In the world there are many other countries similar to Nepal, countries that are poor with most of their farmers being subsistence farmers. If this export idea takes off, displaying that it is beneficial to the Nepalese, and that the product is a reasonable price and good quality. This might engage other countries into forming trade agreements with Canada. This could be again with lentils or with various different crops. With increased trade it will lead again to more jobs, revenue, and the benefits already stated with exporting lentils to Nepal.

Go see Figure 1 in the appendix for an illustration of how exporting lentils to Nepal benefits Canada.

Potential Consequences to Canada:

Everything in the world has its pros and its cons, and unfortunately this trade agreement is no exception. This trade agreement has the potential to decrease profits for producers and processors in Canada. Nepal is a poor country, so the product will have to be priced competitively so the Nepalese can afford to buy the product. By exporting lentils to Nepal it takes away the opportunity to export the lentils to another country. Another country that could be wealthier, and so processors and producers could charge more, leading to more profit.

Another similar way exporting lentils could lower profits for producers, is by having to grow the product. If there is increase demand, a farmer may be contracted into growing more lentils. This requires the use of the farmer's land, and so dictates what the farmer has to grow. This could restrict the farmer from growing a potentially more profitable crop, and so could decrease profits for the farmer (Agriculture and Consumer Protection, 2014).

Part 2: Analysis of Effects to Nepal

Background Information on Nepal:

To begin Nepal is a small country in South Asia between China and India (CIA, n.d.). The population is about the same as Canada's, around the thirty one million mark (CIA, n.d.). Geographically the country consists of three different regions, the plains, the hills, and the Himalayan Mountains (CIA, n.d.). As for agriculture, farming occurs in the plains and on the hills (Khanal, 2014). Most farmers in Nepal are subsistence farmers, only producing enough food to feed their families (Khanal, 2014). If there is any surplus it is sold to their neighbours or to a nearby village (Khanal, 2014). Financially the country is very poor, and so it lacks the basic infrastructure like roads, electricity, and other basic necessities (CIA, n.d.) Due to a lack of infrastructure parts of the nation are isolated; this makes transportation to these areas very difficult (Khanal, 2014). In addition to this, the country is completely land locked, so there are no ports available to use (CIA, n.d.). This poses as a challenge since it means that everything entering or leaving the country must be either flown or trucked in. The capitol is Kathmandu and is located in the plains area (CIA, n.d.). As a side note that relates to the export item, the Nepalese also consume a fair amount of lentils (Vandenberg, 2010), and this is why exporting lentils is a better choice of a product to export than another type of legume.

Benefits to Nepal:

Exporting lentils to Nepal is not just beneficial to Canada it is also beneficial to the Nepalese. In general, exporting lentils to Nepal helps the Nepalese by addressing some of the problems within the nation. As stated previously, Nepal is a poor nation, and are not able to purchase expensive items. Unfortunately, most good sources of protein are meats and tend to be

expensive. Lentils are a great source of protein that offers essential amino acids that typically can be found in meats (Kerns, 2014). Since lentils are from plants, they are an inexpensive source of protein for the Nepalese.

One of the most important benefits this agreement has to the Nepalese is that it will give them more food security. As mentioned, the farmers in Nepal are subsistence farmers, only producing enough food to feed their families. This puts the Nepalese at risk of hunger if ever there is a year where there is a decrease in yields. Today in Nepal there is still a high rate of children being undernourished (FAOSTATS, 2011), this is mainly because of how agriculture in Nepal is barely able to feed its own people. In addition to this, the problem is expected to become worse because of global warming (Pandey, 2012). Global warming threatens to decrease the productivity of their land, by causing longer periods of drought, and causing more severe storms (Pandey, 2012). With Canada exporting lentils to Nepal, it will provide the Nepalese with more food security since there will be another nation producing their food, a nation that is able to produce more than enough food to feed themselves and have lots of surplus to sell.

In addition, exporting lentils to Nepal will free farm land for Nepalese farmers. If Nepalese farmers want to, they can buy the packaged lentils from Canada. This way they would not have to produce as many lentils or others sources of protein for food. This will free up their land and allow them to grow more profitable crops, or another crop that their family may need more of. If the farmer does have a surplus of this excess crop, they can sell it and this can help cover the cost for buying the lentils instead of growing them for themselves.

Another benefit this trade agreement offers to the Nepalese is that it has the potential to aid in stimulating the economy. If the product really takes off, then retailers and local transport

will get more money through sales. In return they will spend this money to improve their company and services. So the money gained through the sale of lentils will be passed onto someone else, who will then also spend the money. This will create a circle of money being transferred which will stimulate the economy.

Figure 2 in the appendix offers a diagram illustrating the benefits this trade agreement offers to Nepal.

Potential Consequences to Nepal:

Unfortunately, exporting lentils to Nepal also has the potential to be consequential. Exporting lentils to Nepal could hurt the Nepalese farmers by decreasing their profits. If there is a good yield of lentils, and have surplus to sell, then their product would have to compete against Canada's. So there is the loss of potential consumers. In addition to this, Nepalese farmers would possibly have to charge less for the product. If there is an abundance of lentils, because of Canada exporting lentils there: to sell their product Nepalese farmers might have to charge less just to get rid of them: This causing a decrease in profits that could have been made.

Furthermore, this trade agreement will most likely hurt commercial, so not subsistence, farmers. These farmers are like farmers in Canada, and produce more than enough to feed themselves and sell most of their product. By exporting lentils to Nepal this will increase competition in the market place. Again this could decrease these Nepalese farmers' consumer base, which leads to decrease in profit. Also it may require for these farmers to charge less to entice people into buying their product, which again leads to more profit loss. In general the Nepalese have an upper hand of having hardly any transportation cost. Regardless of this, exporting lentils to Nepal still adds to the pressure to commercial Nepalese farmers.

Obstacles and Solutions:

For exporting lentils to Nepal, there are some obstacles that stand in the way. The first and biggest obstacle in the way is the competition. China also produces a large amount of lentils (FAOSTATS, 2014), and since China is right beside Nepal, and have lower regulations and standards (Bain, 2004), they are able to market their lentils to the Nepalese for a lower price. Another country that has this same advantage as this is India. They too produce a large amount of lentils and are neighbours to Nepal. On the site Alibaba.com, many Chinese companies are offering lentils for seven hundred to nine hundred dollar US per metric tonnes (Gansu Reber Trading Company Limited, 2014). In comparison, Canada's product will cost approximately nine hundred dollars per metric tonne (Chen, 2014): note that the cost of shipping will decrease the as the amount increases, and that there are many other variables so the cost is just a rough estimate.

An upper hand Canada has in this situation over China and India, are that both countries consume high amounts of lentils (FAOSTAT, 2014). As a result they consume more than what they can grow domestically, so they have to import Canadian lentils to reach demand (Khan, 2014). Therefore, allot of lentils China or India would be exporting to Nepal has a high chance of being a product of Canada. If they are not, then it does not matter since either country will need to import more lentils from Canada to make up for the amount of lentils either country has just exported.

As for dealing with the competition, marketing is required to entice the Nepalese to buy Canadian lentils. One thing the Canada is known for around the world is our high safety regulations, which means Canada produces high quality great tasting food, that consumers know

they can trust (English, 2013). Branding that these are Canadian lentils will help draw in a consumer base. Another marketing scheme that can be put to use is the fact that 2016 has been deemed by the United Nations to be the international year of pulses (Pulse Canada, 2014). This includes lentils, and so can be used to draw in more people. By combining the fact that the lentils are Canadian and that 2016 is the international year of pulses, together they can be used to maximize profit, and make this trade agreement successful.

Another obstacle that this export idea will have to overcome is the high cost of shipping. A rough calculation of the final price at the till will be over a dollar to a dollar fifty Canadian per kilogram of lentils. This rough number is based on the cost of production, processing and transporting the product to India given by Sunny Chen a representative from Agricorp International. He said that getting the product to India will cost approximately nine hundred dollars per metric tonne (Chen, 2014). So one kilogram would be ninety cents. Then the cost of getting the product to Nepal and the retail mark-up has to be included, and this can range between retailers, and that's wide there is a large variance in price. The cost given is a really rough estimate, and is extremely inaccurate; since there are many other variables that dictate the cost, like price of oil (Chen, 2014). Also keep in mind that incorporated in the cost where only rough numbers for the cost of getting the product from India to Nepal, and retail mark-up. The point of this is that the product will be costly in Nepal. On Alibaba.com the cost of Canadian lentils were comparable to the Chinese, though again did not include the cost of shipping (2014).

To overcome these obstacles there are several tools that can be utilized to make Canadian lentils successful. The first thing to do is to lower the price. This can be done by Argocorp International applying for the AgriMarketing Program offered by the Government of Canada. It offers twenty-five thousand dollars in aid for any company trying to expand into foreign markets

(Government of Canada, 2014). In addition, the program offers one million dollars in implementing safety and assurance programs (Government of Canada, 2014). Furthermore, there are many other programs offered by the Government of Canada to help in lowering costs (Government of Canada, 2014). In the end the more government aid Agrocorp International can obtain the lower the cost of the final price will be.

Another option that could be taken in order to lower the cost is finding another company, than Agrocorp International, for transportation. Agrocorp International would still be used for processing the lentils. Though another company, that could ship the product for less would be used. Companies that could be used for transportation could possibly be FedEx or the UPS. The UPS would most likely be the better company since they operate all over the world and are able to ship the lentils from India to Nepal (UPS, 2014).

An additional idea that could be used in lowering the cost of the product is using a lower quality of product. Instead of graded Number 1 lentils to export to Nepal, graded Number 2 lentils could be used instead. This lowers the final price since buying the product from the producer cost less because the quality is not as high, and also it is cheaper to ship the product (Chen, 2014). At the sacrifice of some quality and shelf life, this would lower the price, making the product more competitive.

For a diagram, Figure 3 in the appendix, outlines the obstacles and solutions when exporting lentils to Nepal.

Recommendations:

Yes, it is highly recommended to export Canadian lentils to Nepal, though surveying for more information is definitely required before any company should fully commit to this export

idea. In general, there are many opportunities this trade agreements offer to both nations, and that it is mutually beneficial and not one sided. Furthermore, that the positive aspects of exporting lentils out weight the negatives. Before a trade agreement is made though, more information is still needed to be collected and that most of this information can only be obtained through surveying or professional help. In the end, this is a great opportunity, one that it is worth the time researching for more information.

Some of the information needed for this trade agreement is how much are the Nepalese willing to pay for the product. This will be used to gauge how much of a margin of the cost can go towards shipping, processing, and purchasing of the product. Another question that needs answering is how much should been exported to Nepal and at what intervals? This information will be used to reduce waste and stop potential profit loss from unsold product. Furthermore, it will be necessary to find where should the product be sold, and how should it be marketed. This will ensure that the product is accessible to the maximum number of people who want the product, within a realistic price range. Most of these questions can be solved through surveying before the trade agreement is set in place. Other pieces of information that still need to be addressed are political factors, and possible trading barriers. These topics were researched though very little information was able to be found, and therefore to obtain this information professional help may be required.

Appendix:

Figure 1: Nutritional Value of Red Lentils (Vandenberg, 2010) url: http://www.agriculture.gov.sk.ca/Default.aspx?DN=a88f57f0-242b-40f6-8755-1fc6df4dfa14

Whole Red Lentils Nutritional Information Per 100 g dry	
Amount	% Daily Value
Fat 1.0 grams	2%
Carbohydrates 59.1 grams	20%
Total Fibre 14.2 grams	57%
Insoluble Fibre 12.4 grams	
Soluble Fibre 1.81 grams	
Sucrose 1.79 grams	
Protein 28.4 grams	
Calcium 97.3 mg	10%
Iron 7.3 mg	41%
Potassium 1,135 mg	32%
Vitamin C 0.73 mg	1%
Thiamin 0.34 mg	23%
Riboflavin 0.31 mg	18%
Niacin 1.73 mg	9%
Vitamin B_6 0.28 mg	14%
Folate 186 mcg	47%

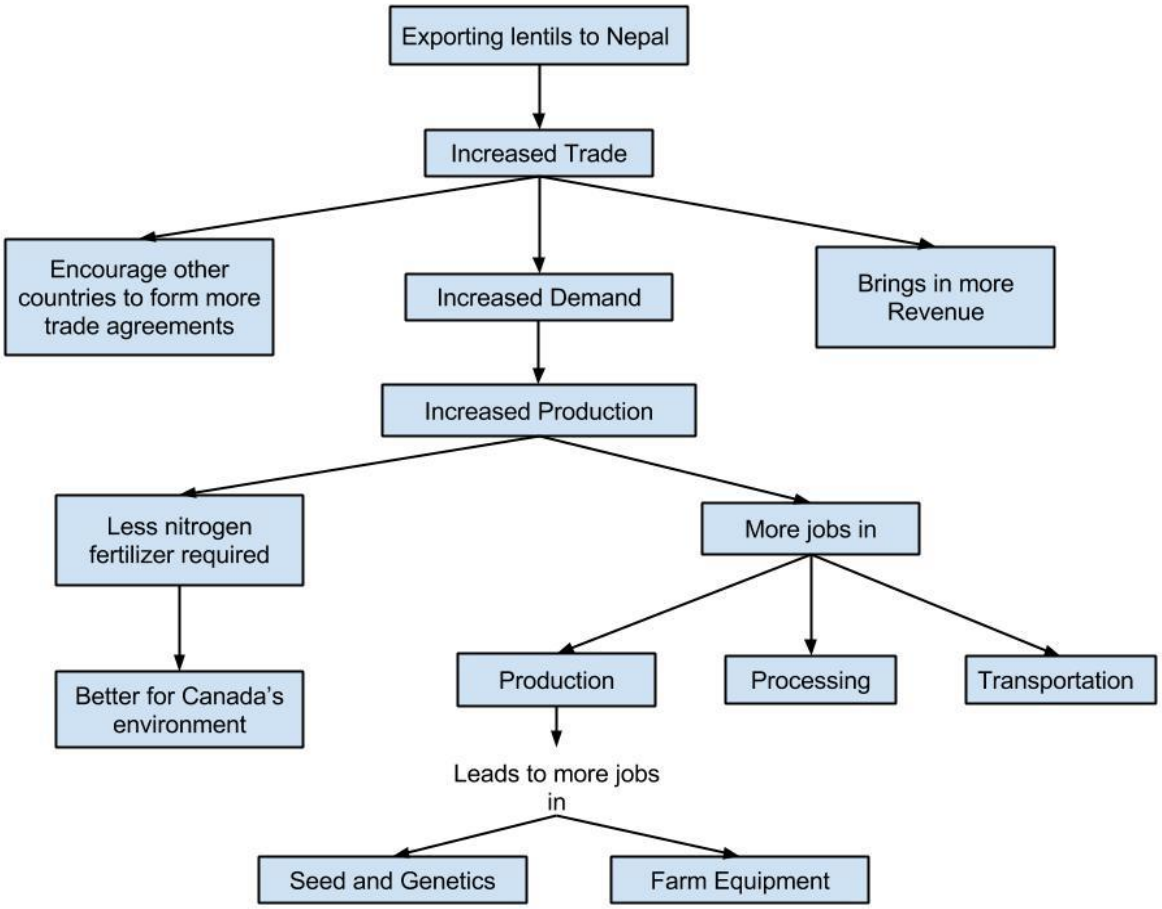

Figure 2: How Exporting Lentils Benefits Canada

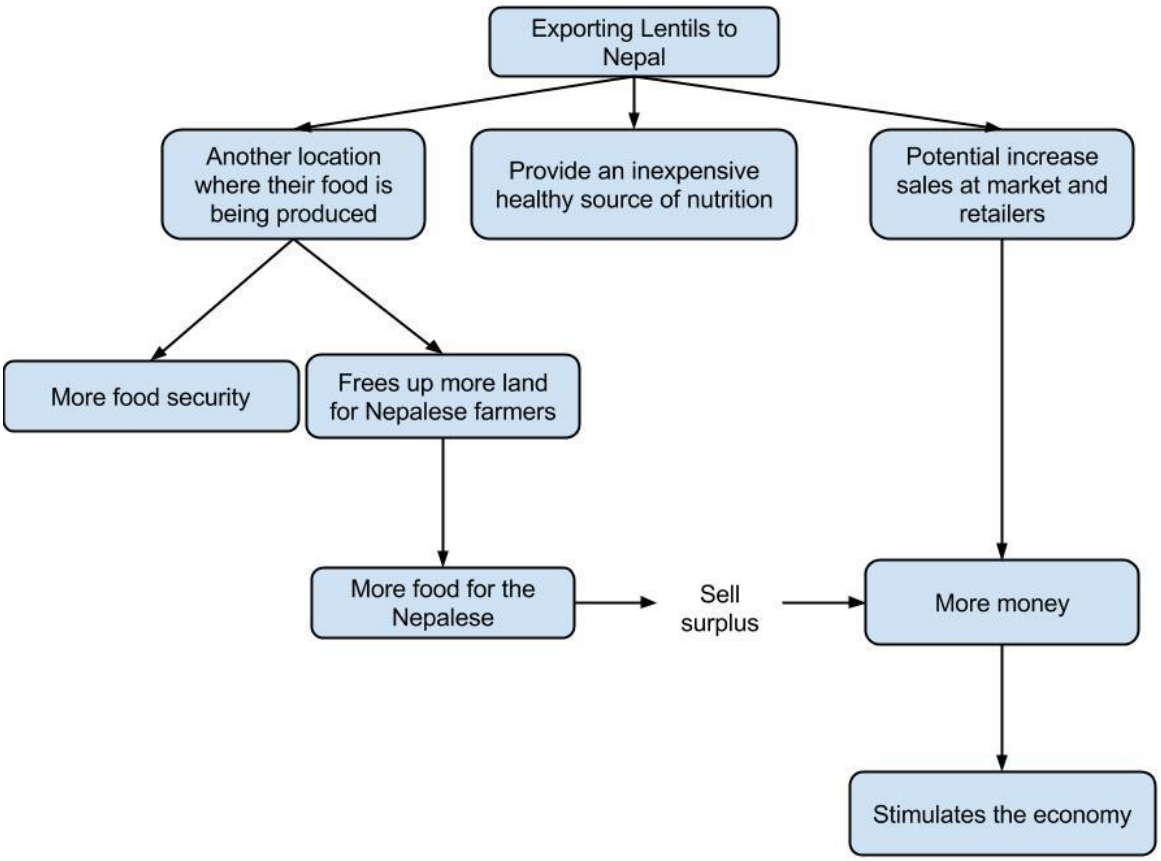

Figure 3: How Exporting Lentils Benefits Nepal

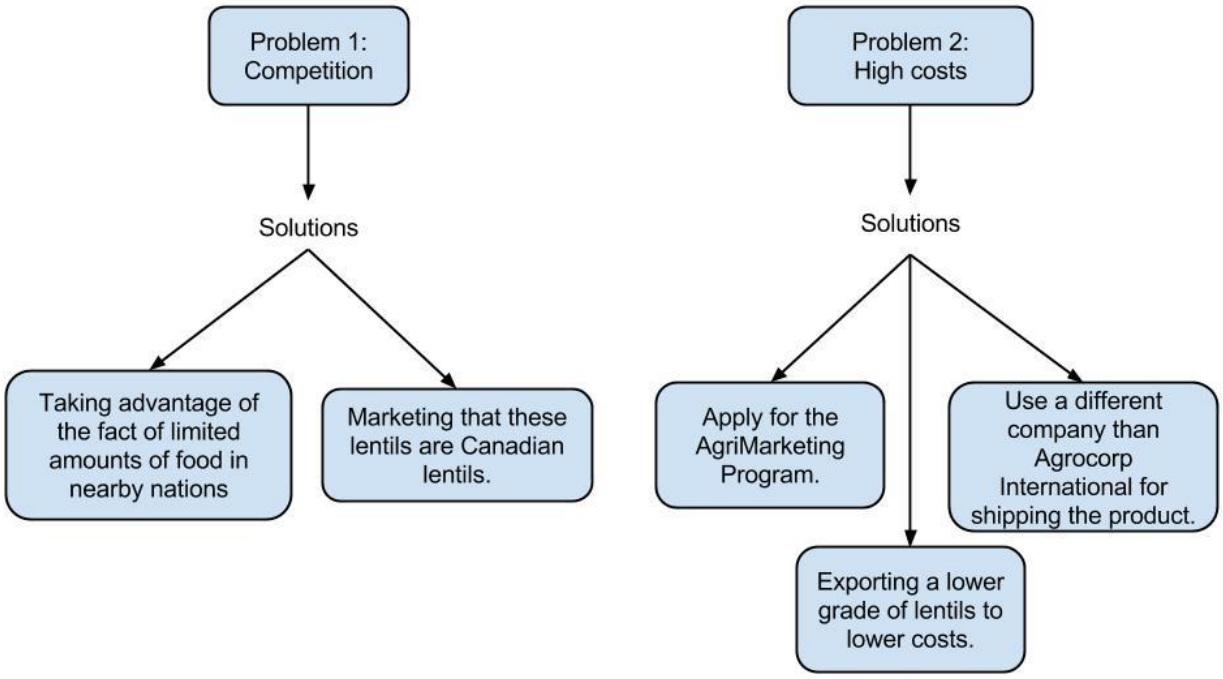

Figure 4: Obstacles and Solutions with Exporting Lentils to Nepal

References:

Agriculture and Consumer Protection. (n.d.). Contract parming. Retrieved October 21st, 2014, from http://www.fao.org.subzero.lib.uoguelph.ca/docrep/004/Y0937E/y0937e03.htm

Agrocorp International. (unknown). Global offices. Retrieved October 2, 2014, from http://www.agrocorp.ca/agricultural-trading-company-global-offices/

Alibaba.com. (2014). Canadian lentils. Retrieved October 22, 2014, from http://www.alibaba.com/trade/search?fsb=y&IndexArea=product_en&CatId=&SearchText=Canadian+Lentils

Barber, K. (Ed.). (2001). *Oxford canadian dictionary* (First ed.). Don Mills ON: Oxford University Press.

Bian Yongmin, « The Challenges for Food Safety in China », China Perspectives [Online], 53 | May-June 2004, Online since 24 June 2008, connection on 07 November 2014. URL : http://chinaperspectives.revues.org/819

Canadian Grain Commision. (2012). Canadian lentils. Retrieved September 25th, 2014, from http://www.grainscanada.gc.ca.subzero.lib.uoguelph.ca/lentils-lentille/llm-mll-eng.htm#areas

Carr, K. (2014). Lentils. Retrieved October 21st, 2014, from http://www.historyforkids.org/learn/food/lentils.htm

Chen, S. (2014). In Ted Vanhie (Ed.), *Agrocorp international, jr.trader*. email: sunny@agrocorp.ca.

CIA. (n.d.). Nepal. Retrieved October 21st, 2014, from https://www.cia.gov/library/publications/the-world-factbook/geos/np.html

English, J. (2013). 500 members now promoting products using Canada brand. Retrieved October 2, 2014, from http://news.gc.ca.subzero.lib.uoguelph.ca/web/article-en.do?nid=717999

Export Development Canada. (2014). Growing your business outside of Canada. Retrieved October 30, 2014, from http://www.edc.ca/EN/Our-Solutions/Pages/grow-your-business.aspx

FAOSTATS. (2011). Suite of food security indicators. Retrieved October 21st, 2014, from http://faostat3.fao.org.subzero.lib.uoguelph.ca/browse/D/FS/E

FAOSTATS. (2014). Food and agricultural organization of the United Nations statistics division. Retrieved September 30, 2014, from http://faostat3.fao.org.subzero.lib.uoguelph.ca/faostat-gateway/go/to/browse/Q/QC/E

Fitzpatrick, K. (2014). Superfood: Lentils. Retrieved October 21st, 2014, from http://greatist.com/health/superfood-lentils

Gansu Reber Trading Company Limited. (2014). Chinese lentils. Retrieved November 17th, 2014, from http://www.alibaba.com/product-detail/Chinese-Lentils_736384715.html?s=p

Government of Canada. (2014). AgriMarketing program. Retrieved October 4th, 2014, from http://www.canadabusiness.ca/eng/program/4178/

Government of Canada. (Oct. 1st 2013). Lentil. Retrieved September 25th, 2014, from http://www.agr.gc.ca.subzero.lib.uoguelph.ca/eng/industry-markets-and-trade/statistics-and-market-information/by-product-sector/crops/pulses-and-special-crops-canadian-industry/lentil/?id=1174596720488

International Trade Administration. (2014). Employment and trade. Retrieved October 21, 2014, from http://www.trade.gov/mas/ian/employment/

Kerns, M. (2014). Nutritional content in red lentils. Retrieved October 21st, 2014, from http://www.livestrong.com/article/542637-nutritional-content-in-red-lentils/

Khan, L. (2014,). Canada to meet india's demand for pulses. *The Hindu*

Khanal, R. (2014). In Introduction to Agri-Foods Class (Ed.), *Nepal*

Pandey, C. (2012). *The impact of climate change on agriculture and adaptation in nepal.* (No. 1). University of Waikato: Agribusiness and Information Management.

Pulse Canada (Producer), & Pulse Canada (Director). (2014). *2016 - international year of pulses (IYOP).* [Video/DVD] http://www.pulsecanada.com/news-multimedia/pulse-canada-videos:

Surveyoncics. (2011). Importanca of surveying market trends. Retrieved October 30, 2014, from http://www.surveyonics.com/SurveyCourseware/Importance-Of-Surveying-Marketing-Trends.aspx

UPS. (2014). Calculate time and cost. Retrieved November 17, 2014, from https://wwwapps.ups.com/fctc/processTimeAndCost?loc=en_IN

Vandenberg, A. (2010). Red lentils. Retrieved October 21st, 2014, from http://www.agriculture.gov.sk.ca/Default.aspx?DN=a88f57f0-242b-40f6-8755-1fc6df4dfa14