

Gardening Kneepads for Rural Nepalese Women and Farmers

Naomi Sermer

2014



Promoting Canadian Agrifood Exports-Target
Nation: Nepal
AGR*1110, Introduction to Agrifood Systems
For: Dr. Manish
Naomi Sermer

Table of Contents

Section 1- Basic Product Information.....	pg.3
Section 2- Basic Export Potential to Nepal.....	pg. 4
Section 3- Transportation, Storage, and Potential Development.....	pg.5
Section 4- Cost Analysis.....	pg.8
Section 5- Government Grants and/or Subsidies.....	pg.8
Section 6- Documentation Barriers.....	pg.10
Section 7- Benefits and/or Loss.....	pg.11
Section 8- What is Unknown and Recommendations.....	pg.13
Section 9- Conclusion.....	pg.14
Section 10- Contact Companies.....	pg.14
Section 11- Bibliography.....	pg.16.

Section 1- Basic Product Information

The product I have chosen for my topic is gardening knee pads for rural Nepalese women and farmers. In 2010, the Food and Agriculture Organization found that 98 percent of Nepal's total female labour force was involved in agriculture (*Food and Agriculture Organization, 2011*). Furthermore, the UN Environment Programme found that women perform six times more agricultural work than men do (*Pravettoni, 2011*). Many rural women do not have the ability to access new technology, however even some basic equipment would make a large difference on labour (*Irin, 2012*). Gardening knee pads would provide a greater measure of comfort to these women who spend a majority of their time in the fields.

My product is the T-Foam Knee Komforts made by TommyCo (*TommyCo, 2008*). TommyCo is a company based out of Surrey, British Columbia (*TommyCo, 2007*).



They originally only specialized in knee pads however they have slightly expanded their business with other small gardening products such as pocket gear bags. TommyCo has many manufacturing plants throughout the world but for the purpose of this paper we will be focusing on their main plant in British Columbia. The T-Foam Knee Komforts are priced at

\$4.39 CAN (*TommyCo, 2008*). This particular product is made quickly at a low cost, the company even mentions the high volume of sales that this product creates (*TommyCo, 2008*).

The sale of this product throughout Nepal will continue to aid Canada by producing a higher level of sales with increased revenue. It may even require another manufacturing plant to open, creating jobs and in turn aiding the economy. The pads are made out of environmentally friendly, medical grade foam which has been expanded with nitrogen (*TommyCo, 2010*). This expansion

by the use of nitrogen has been patented towards this particular company. There is no use of CFC's, HFC's, VOC's or Azodicarboamides, aiding towards the companies environmentally friendly label (*TommyCo, 2010*). The medical grade confirms that irritation towards skin is non-existent and the kneepads can be left on all day (*TommyCo, 2007*). Here in North America, this product is commonly used a gardening tool to prevent consumers from getting sore knees while planting, tilling and harvesting their local gardens. Over in Nepal, this product can aid rural women in their day to day lives while working in the fields by providing a higher level of comfort.

Section 2-Basic Export Potential to Nepal

If the Canadian government could provide a tax break or a grant towards a program that would aid in the intention of this project then the price of the product may be able to be lowered. This would greatly help the people of Nepal as it is a country with great poverty. The Nepalese government claims that minimum wage for a month is 6,100 rupees which is the equivalent to \$67.92 CAN (*Dave, 2012*). The price of the T-Foam Knee Komforts is not very expensive, however any type of cost cut would greatly aid the rural farmers. TommyCo ships the knee pads in bulk "dump-bin" displays (*TommyCo, 2008*). It would be very easy for the company to ship the product via shipping containers. They could also be transported by cargo planes. This may be the cheaper of the two options as they may be flown directly from British Columbia to central Nepal. From there they can be transported to towns and villages via delivery truck to potential retailers. They do not require a large amount of space and are very lightweight decreasing the cost of transportation (*TommyCo, 2008*). Shipments of T-Foam kneepads would need to be accompanied with a Customs Transit Declaration as well as a Diplomatic Exemption Certificate approved by the Ministry of Foreign Affairs (*Shipping International, 2014*).

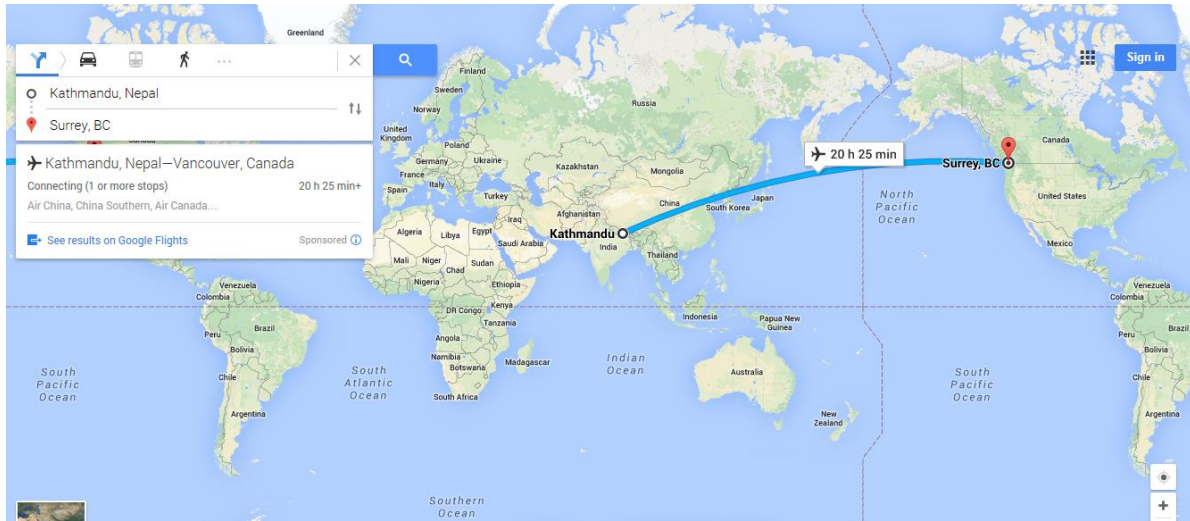
The benefits to rural farmers is large, especially to women, who perform six times more agricultural work than men (*Pravettoni, 2011*). Since the labour is manual and quite intense, any source of comfort would be greatly appreciated. The T-Foam kneepads can be used from planting to harvesting and even preparing the food. Furthermore, it could boost job production when it comes to distributing the pads. Since the product is made through nitrogen expansion it is environmentally friendly as harmful chemicals are not released into the environment during creation (*TommyCo, 2010*). They do not degrade quickly, rather they last a long time reducing the amount of new knee pads needed per person.

Another option that could be considered would be agricultural retailers in Nepal, who sell seeds and equipment, distributing T-Foam kneepads with consumer purchases. This would reduce the amount of financial stress placed on rural farmers. Although there is large debate over Monsanto, it is a multi-billion dollar company that could absorb the cost of distributing T-Foam kneepads with the purchase of seeds in Nepal. Monsanto entered Nepal in 2012 as the country produces only half the amount of corn maize needed to feed the nation (*RT News, 2012*). There are no current knee pad distributors or retailers located in Nepal, although knee pads can be shipped as gifts and aid tools.

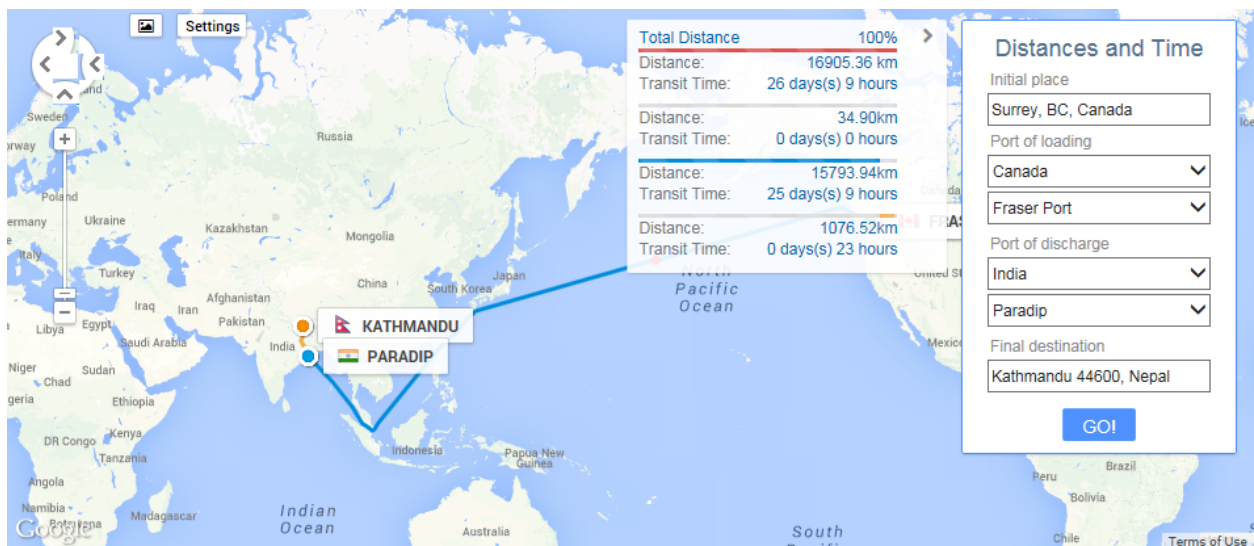
In the next few subheadings we will look further in depth at transportation, cost, storage, viability, marketing, trade barriers, and government support.

Section 3- Transportation, Storage, and Potential Development

TommyCo is based out of Surrey, British Columbia. Although they have multiple manufacturing factories throughout the world, we will be focusing on the kneepad products created here in Canada. As discussed earlier, there is a possibility for the kneepads to be shipped



or flown to Nepal. We will be focusing on shipping the products to Kathmandu, the national city of Nepal. Flight time from Surrey, British Columbia to New Delhi, India is roughly 18 hours-15 minutes crossing over the North Pacific Ocean (See figure 1) (Google Maps, 2014). The product would travel from the manufacturing plant in Surrey to Vancouver International Airport by transport truck, roughly 35 minutes away from the factory. Spady Transport Ltd. is a transport truck located in Surrey, British Columbia. It is based 35km from the TommyCo factory and



partnership with the company would be beneficial to the local economy. The cargo would unload in New Delhi, India. This is the closest air cargo port to Nepal. The products would then have to be shipped via transport truck to Kathmandu, time frame estimating at 17hours-22minutes. In

total, this trip would take around 70hours-40minutes or approximatley 3 days. Alternatively, passage via cargo ship would begin in Fraser Port, located in British Columbia from which it would be transported across the North Pacific Ocean to Paradip Port, located in India (See figure 2) (*Searates, 2014*). From there, the kneepads would be shipped by transport truck to Kathmandu, Nepal. The time frame is as follows from shipping to Kathmandu: 25days-9 hours from Fraser Port to Paradip Port, 23 hours from Paradip Port to central Kathmandu (*Searates, 2014*). Based on this information, it is more time efficient to transport the products via air cargo than ship cargo. It is important to remember that air cargo transport can be very costly. There is a fuel surcharge based on weight, adding up to 44.00/kg Indian Ruppee which amounts to \$0.80/kg CAN. The kneepads are shipped in bulk “dump-bin” displays. Each pair of kneepads weighs 0.05lbs, a carton contains 40 units weighing in at 3.3lbs, while a pallet contains 640 units weighing in at 33.3lbs. Therefore a fuel surcharge of \$12.10 CAN on each pallet would be applied (*Air Canada, 2014*). Further charges would amount to a minimum of \$447.60 CAN (*Air Canada, 2014*). This is relatively inexpensive due to incoming revenue from each pallet being \$2,810.00 CAN. It is important to remember that this does not contain transport truck costs as there is very little information available on “going-rates”. RoadRunner Logistic Services, based in Delhi, India is a large transport truck company. Aside from providing transport services to retail stores in Nepal, they also offer storage of cargo products at their facilities. Storage is relatively easy due the fact that the kneepads are extremely light weight and can be shipped in containers of 40 or 640 depending on need (*TommyCo, 2012*). A pallet of 640 can easily be distributed around Nepal to rural farming communities.

Section 4- Cost Analysis

The T-Komfort Kneepads are retailed for \$4.39 CAN per pair. Therefore a carton of 40 units amounts to \$175.50 CAN, while a pallet of 640 units creates a revenue of approximately \$2,810.00 CAN (*TommyCo, 2012*). Although it is very likely that these items will sell in Nepal, the amount to be sold is difficult to predict as the Nepalese people live in such great poverty. It would not be recommended to send more than a couple of pallets for distribution until the amount of sales can be recorded and proven. Unfortunately there is little information on other worldwide manufacturing locations of TommyCo products. It would be suggested to further research this and determine the cost of manufacturing TommyCo kneepads in a developing nation such as India or China. Product creation costs as well as shipping costs would be considerably less. A bulk storage location would be available as well. If a TommyCo manufacturing plant does not exist yet in and around the Middle East and Asia, it would be highly recommended for them to look into developing a factory there as there is a niche, underdeveloped market with potential for growth. High quality and pricey items do not have to be manufactured at these plants as there is less of a market for them. The minimum wage in India is \$0.28/day (*Wikipedia, 2014*). Manufacturing costs are cheaper as well as electricity charges are \$0.07/kWh, whereas Canada averages \$.10/kWh (*Wilson, 2014*).

Section 5- Government Grants and/or Subsidies

If the Canadian government could provide a grant or a subsidy toward the dispersal of the T-Foam kneepads it would be greatly beneficial. There are many different grants that could be of use. The Canada Fund for Local Initiatives which “aims to support small projects in developing countries forward and implemented by local organizations” (*Canada, 2014*). Global

Opportunities for Associations which “provides contribution funding to support national associations in undertaking new or expanded international business development activities” (*Canada, 2014*). Or the International Development Assistance which “provides international development assistance to help people living in poverty in specific countries or regions as part of Canada’s Aid Effectiveness Agenda” (*Canada, 2014*). These subsidies focus on helping people who live in extreme poverty all while encouraging companies to expand their small businesses internationally from Canada. The minimum wage for a month is \$6,100 rupees which is the equivalent to \$67.92 CAN (*Dave, 2012*). If the price of \$4.39 CAN could be reduced by \$1.50 CAN it would aid the people of Nepal. When International Financial Institutions are looking to invest in a project, they require bidding, procurement, and product delivery to follow pre-specified guidelines (*British Columbia, 2014*). They are looking for low risk investments that can provide both benefits and returns. The T-Foam kneepads would fit this description as they are inexpensive, manufactured for a good cause, and are manufactured in British Columbia, one of Canada’s most open trading economies.

Another option, as mentioned in the introductory paragraph, would be to approach a company such as Monsanto. Monsanto is worth \$59.83 billion dollars and does business in over 68 countries (*Forbes, 2014*). Monsanto entered Nepal in 2012 to help Nepalese farmers produce enough corn to feed its citizens (*RT News, 2012*). There is the potential that Monsanto could absorb the costs of the product and distribute them throughout the nation when farmers purchase their crop. The product is inexpensive when shipped in pallet form and Monsanto can easily absorb the cost. Monsanto would benefit by being seen to give back to communities as well as ensure that farmers can continue working out in the fields for many years without joint problems. The Monsanto fund is dedicated to providing aid for rural farmers in developing countries that

are struggling (*See Chart 1*). In India, the fund has already provided \$575,320 US dollars towards eliminating child labour, \$380,000 US to ensuring food security, and has donated more than 500 newspapers and books to schools in Bangalore (*The Monsanto Fund, 2011*). By donating kneepads or offering them with the purchase of maize seeds in Nepal, Monsanto could add another country to their “give-back” project by further supporting rural farmers living in extreme poverty.

**The Monsanto Fund is dedicated to
aiding the following countries:**

Canada	The United States	Mexico	China
India	Indonesia	Vietnam	Burkina Faso
Kenya	Malawi	South Africa	Tanzania
Belgium	Hungary	Jordan	Portugal
Spain	Ukraine	France	Israel
Netherlands	Romania	Syria	United Kingdom
Argentina	Brazil	Paraguay	Germany
Italy	Poland	Russia	Turkey

Section 6- Documentation and Barriers

Tariffs in Canada are quite high and prevent a fair amount of trade from occurring. Although it is desired to keep jobs in the nation, importing goods from other countries can lead to strong relationships. By lowering tariff prices, Canada is more likely to spark trade with more nations. The currency exchange rate could also be another barrier. Frequently fluctuating rates are an issue as the purchaser can end up paying way more than expected. British Columbia, is at

the forefront of reducing and eliminating trade barriers. British Columbia's trade agreements are looking to "outline clear rules, increasing predictability, reduce costs through the elimination of tariff and non-tariff barriers, and provide a mechanism to address discriminatory practices that hinder trade and investment" (*British Columbia, 2014*). British Columbia operates under the trade agreements within Canada and key international markets, including the World Trade Organization and the North American Free Trade Agreement (*British Columbia, 2014*).

As mentioned in the introduction, the shipments of T-Foam kneepads would need to be accompanied with a Customs Transit Declaration as well as a Diplomatic Exemption Certificate approved by the Ministry of Foreign Affairs (*Shipping International, 2014*). The Customs Transit Declaration allows for shipments to be cleared at Indian ship and air ports. A Diplomatic Exemption form reduces the need for frequent inspection of the products. This means that once it has been x-rayed it is clear to be exported without any further security checks. Furthermore, new items entering the country must be accompanied by an invoice and certificate of origin (*Shipping International, 2014*).

Section 7- Benefits and/or Loss

Although opening a new plant in the Middle Eastern/Asian regions would be costly, the profit made would be great in the long run. We would lose production here in Canada, however the plant would still be operational as they provide product to Canada and The United States. The benefits of opening a new plant would be labour, manufacturing, storage and transportation costs to be halved where profits are raised. Furthermore, work supplied to people in developing countries would be greatly appreciated and boost the economy. Jobs in the manufacturing facility and transport industry would develop. Revenue made in retail stores throughout these areas

would further positively impact the economy. The production and/or supply of the kneepads does not have to be limited to Nepal, it can supply farming communities throughout the developing nations.

Canada and Nepal have had a history of positive affiliation since 1965. Trade and investment have remained moderate since 1965 (*Canada, 2013*). From 2012 to 2013, Canada's exports to Nepal totalled \$7.1 million CAN, whereas imports from Nepal totalled \$11.5 million CAN (*Canada, 2013*). Nepal's exports mainly consist of textile garments and apparels, Canada's exports to Nepal include machines, paper, vegetables, optical instruments and appliances (*Canada, 2013*). By subsidizing the export of the T-Foam kneepad, a strong relationship with Nepal would ensue and trade relations would further be strengthened. As of 2013, Canada had invested approximately \$480 million CAN into the Nepalese people (*Canada, 2013*).

The T-Foam Komfort kneepads can supply a level of comfort that is unknown to most rural farming women. Skin and joints are protected through the use of these pad. They prevent sores to develop and allow for longer periods of time working near the ground. The medical grade label ensures no irritation develops from use of the product. They are lightweight and reasonably priced allowing for easy purchase with long lasting usage. Furthermore, they are made with Nitrofoam which is injected with nitrogen. During this process no CFC's, HFC's, VOC's or Azodicarbonomides are released into the environment, limiting the factories' environmental impact. Chlorofluorocarbons (CFC's), High Fructose Corn Syrup (HFC's), and Volatile Organic Compounds (VOC's) are carcinogenic as well as responsible for the ozone depletion (*British Columbia, 2014*). There are no other companies that manufacture foam kneepads for a relatively inexpensive price that are environmentally friendly. EVA foam kneematts/pads made by Ningbo Mylon Rubber and Plastic Co. are within the same price range

as the T-Foam Komforts but they are made with ethylene vinyl acetate and blended copolymers which are non-environmentally friendly and manufactured in China (*Alibaba, 2014*).

Section 8- What is Unknown and Recommendations

The biggest question of marketing the T-Foam kneepads in Nepal is: How many products will actually be distributed? Due to Nepal being such a small, hardy country, the prediction is that three of 1920 units will sell immediately. After this initial process it is believed that sales will begin to drop off as there may be people who want the kneepad but are too poor to purchase them. Sales should plateau at a certain level. The kneepads are lightweight and not easily decomposed meaning that they are meant to last for each person. Therefore, the percentage of resale goes down as well. The product and/or idea is one that has potential and could be very profitable however, it is recommended that test pallets be shipped over to determine sale levels. If sales are consistently profitable for at least two years, it may be worth TommyCo looking into purchasing a manufacturing warehouse and storage unit in India. Another question is: If the price of the T-Foam kneepad is reduced due to a grant or subsidy, are people more likely to buy them? Again, it is hard to determine however, due to the reduced price, they become more affordable. People may purchase more of them knowing that they last a long time, they are inexpensive, and they help to prevent chronic pain. It is suggested that TommyCo applies for one or all of the governmental grants mentioned in section 5.

Furthermore, although it would be very useful to use the transport trucking companies mentioned in section 3, Spady Transport Ltd. and RoadRunner Logistic Services, their “going-rates” may be too expensive and unrewarding. Referencing service quotes from many different trucking companies in the area would be beneficial as payment requirements can be compared

and evaluated until the leading rate is found. Furthermore, other developing countries in the Middle East/Asia may be interested in retailing this product so options on shipping and transport locations should be left open for development to occur.

Section 9- Conclusion

In conclusion, the T-Foam kneepads are a great, cost-efficient, relatively high grade product that are safe and effective to use in everyday manual work. If the idea can be proposed in an appropriate manner, the potential is unlimited. Initial price cuts or government subsidies to help the product get established overseas would be very beneficial. There is the potential to make a profit, however before large scale shipments are sent to Nepal it would be best to perform several trial pallets and determine the clientele purchasing the kneepads. This way TommyCo can approximate how many pallets should be shipped over at a time. Although it would be superb if the product could be manufactured in Canada and shipped overseas, it may not be the most profitable. Purchasing a manufacturing plant located in India, or outsourcing the creation of the product, may be the paramount option. A manufacturing plant based out of India is ideal as it is able to supply the Middle East/Asia with product if demand for the kneepads is received. Finally, it would greatly improve the lives of many rural farmers and women who work extremely hard every day to make ends meet for their families. Any source of comfort is appreciated and would make performing the intensive labour slightly easier.

Section 10- Contact Companies

Contact companies for the T-Foam kneepads are as follows:

	Website	President	Address	Telephone
TommyCo	http://www.kneepads.com/aboutus.php	Tommy Lesosky	12202 Old Yale Rd, Surrey, BC V3V 3X5	(604) 580-6888
Spady Transport Ltd.	http://www.spadytransport.com/	Margaret Spady	#159-17735 1st Ave, Surrey, BC V3S 9S1	(604) 535-1825
Air Canada Cargo	http://www.aircanada.com/cargo/en/		2200 Reverchon, Dorval, QC H9P 2S7 (head office)	(514) 422-0555
Vancouver International Airport	http://www.yvr.ca/en/default.aspx		3211 Grand McConachie Way, Richmond, BC V7B 0A4	(604) 207-7077
New Delhi Indira Gandhi International Airport	http://www.newdelhiairport.in/traveler.aspx		New Delhi, Delhi 110037, India	+91 124-337-6000
RoadRunner Logistic Services	http://www.roadrunnerlogistic.co.in/	Mr. Arvind	Shop No. 202, Living Style Mall Jasola, Sarita Vihar, New Delhi- 110 025, India	+91 844-756-9056

Section 11- Bibliography

Air Canada.(2014). Selected Ground Handling Charges.[Internet]. Available from:
http://www.aircanada.com/cargo/en/shipping/ground_handling/canada.html

Alibaba.(2014). Foam Matts.[Internet]. Available from: <http://mylon.en.alibaba.com/>

British Columbia. (2014). Glossary.[Internet]. Available from:
<http://www.bcairquality.ca/glossary/>

British Columbia. (2014). Trade Agreements.[Internet]. Available from:
<http://www.britishcolumbia.ca/export/our-services/eliminating-barriers-to-trade.aspx>

Canada. (2013). Canada-Nepal Relations. The Government of Canada.[Internet]. Available from:
http://www.canadainternational.gc.ca/india-inde/bilateral_relations_bilaterales/canada_nepal.aspx?lang=eng

Canada. (2014). Funding Programs. The Government of Canada.[Internet]. Available from:
<http://www.international.gc.ca/department-ministere/funding-financement.aspx?lang=eng>

Dave.(2012). How much money does a person from Nepal earn or make a day?.[Internet]. Available from: <http://www.thelongestwayhome.com/blog/nepal/how-much-money-does-a-person-from-nepal-earn/>

Food and Agriculture Organization-FAO.(2011). The State of Food and Agriculture: Women in Agriculture-closing the gender gap for development.[Internet]. Available from:
<http://www.fao.org/docrep/013/i2050e/i2050e.pdf>

Forbes.(2014). Global 2000.[Internet]. Available from:
<http://www.forbes.com/companies/monsanto/>

Google Maps.(2014). Directions.[Internet]. Available from:
<https://www.google.ca/maps/dir/New+Delhi,+Delhi,+India/Surrey,+BC/@2.9568071,70.6442649,2z/data=!3m1!4b1!4m13!4m12!1m5!1m1!1s0x390cfd5b347eb62d:0x52c2b7494e204dce!2m2!1d77.22496!2d28.635308!1m5!1m1!1s0x5485dc034d3fa75b:0xd28b4898abd598e0!2m2!1d-122.85!2d49.183333>

Irin.(2012). Nepal: Tailoring Technology for Female Farmers.[Internet]. Available from:
<http://www.irinnews.org/report/95998/nepal-tailoring-technology-for-female-farmers>

The Monsanto Fund. (2011). Programs and Giving: India.[Internet]. Available from:
<http://www.monsantofund.org/programs/asia-india/india/>

Pravettoni, R.(2011). Gender Division of Labour in Agriculture and Household Activities-Nepal and India.[Internet].Available from: http://www.grida.no/graphicslib/detail/gender-division-of-labour-in-agriculture-and-household-activities-nepal-and-india_1051

RT News.(2012). The perfect drug? Monsanto hooks Nepal on GMO corn.[Internet]. Available from: <http://rt.com/news/monsanto-nepal-crops-maize-seeds-095/>

Searates.(2014). Distances and Time.[Internet]. Available from: <http://www.searates.com/reference/portdistance/>

Shipping International.(2014). Customs Regulations in Nepal: Documents Required.[Internet]. Available from: <http://nepal.shipping-international.com/customs/>

TommyCo.(2007). About us.[Internet]. Available from: <http://www.kneepads.com/aboutus.php>

TommyCo.(2010). Environmentally Responsible Practices.[Internet]. Available from: http://www.kneepads.com/pdf/Tommyco_environmental_values.pdf

TommyCo.(2008). T-Foam Knee Komforts.[Internet]. Available from: http://www.kneepads.com/product_info.php?cPath=&products_id=17

TommyCo.(2007). Useful Information.[Internet]. Available from: <http://www.kneepads.com/info.php>

Wikipedia.(2014). List of Minimum Wages by Country.[Internet]. Available from: http://en.wikipedia.org/wiki/List_of_minimum_wages_by_country

TommyCo.(2012). Garden Catalogue.[Internet]. Available from: http://www.kneepads.com/pdf/tm_2012cat-garden_medres_sept15.pdf

Wilson, L.(2014). Average Electricity Prices Around the World: \$/kWh.[Internet]. Available from: <http://shrinkthatfootprint.com/average-electricity-prices-kwh>

Personal Contact:

Miss Naomi Sermer

5th year Bio-Resource Management Student, University of Guelph

Nsermer@uoguelph.ca

November 24th, 2014