

## **Exporting of plastic chicken wire to Nepal**

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Nepal is a high demand country for cheap, affordable and easy to use items for their agricultural land. Nepal is populated with 28 million people and only 28% of their land is for agriculture. With Nepal being one of the poorest and least developed countries in the world, it is important to be able to provide them with standard tools that are easy to use with low cost to help with production of food and goods. Their natural hazards that occur often are severe thunderstorms, flooding, landslides, drought and famine. Nepal's poverty level is very high, which makes the cost of living very difficult for the locals to survive. Since Nepal suffers from many natural disasters, and does not have the right equipment and materials to keep produce striving, it is important to be able to provide Nepal with all the materials they need in order to reduce the effects of poverty. Nepal is divided into three regions, from east-west topological regions, down to the Himalayans near Mount Everest. The agricultural land is divided into three regions, the Terai region which is mostly forming plains which takes up 23% of Nepal's land area. The Terai region mostly produces large quantities of grains. In Terai limited grazing land is available for animals such as cattle, goats and buffalo. The total food production that results from the Terai region is around a total of 7%.

As for the hills region, it takes up 42% of the land of Nepal and is a sub-tropical to warm climate. This section of land is mostly known for its ability to produce cash crops and many fruits, because of its terrace farming and millet based cropping systems. More livestock are able to graze here because of the amount of land and production of grazing land. The hills regions total food deficit amount is approximately 36%.

Finally, the mountain region is a warm temperate to alpine climates. The soil is mostly rocky, with about 28% of irrigated land. Crop growth is very limited here because of the low temperatures and its short growing seasons. There is a very limited access to roads here because of the slopes, therefore mules and sheep are depended on for transportation of certain goods. This is a mostly food deficit region of about 80%.

Since Nepal is such a poor country, and their country is divided by three different climates and lands, Nepal has many different cropping systems. In the Terai and hills regions are based on sole cropping systems, of mostly rice-wheat-maize, rice-maize, millet-maize, etc. For a monoculture cropping system, this is done in the Mountains, and their main crops are potatoes and buckwheat. There is also mixed and relay intercropping in limited areas, as well as agro forestry systems in hills and mountains.

Crop management practices are different for all three regions. For the Terai region, it is based on a semi-mechanized system. This is the use of tractors, harvester, fertilizers, and chemical pesticides. In the hills region, it is traditional/subsistence farming with less use of chemicals, improved seeds and tools. Finally, in the mountain regions it is nomadic farming, which consists of moving various places in search of food; unfortunately less than one percent of the land is cultivated in this region.

For Nepal, overall their total crop productivity is low, even with a higher yield of production in the Terai and hill regions. As for livestock management systems, in the Terai region it is based upon a mostly stall-fed system, where grazing land is limited due to intensive cultivation. In the hills region, it is mostly a sedentary system, where the livestock freely graze during the day, and return to their stalls in the evening. As for the mountains, it is based on a transhumant system. This means that the herds migrate from one place to another throughout the year. Many of the reasons that their yields are so low may be the increased amount of predators eating their produce, as well as pests and climate change. However, with the plastic chicken wire, this provides protection and safe keeping of both the animals and produce to ensure its life span is longer than expected.

Since Nepal is such a poor country there are many challenges that face the agriculture sector in Nepal. Certain technological challenges found in Nepal are small land holdings, narrow sloped land and remoteness. Overall these challenges make it very difficult to mechanize farm operation, and have poor access to markets and services for agricultural purposes. Environmental challenges also occur, such as soil erosion and deforestation. Finally, economically Nepal is a high poverty country, with a increased amount of labour shortages, illiteracy and cultural barriers.

It is important to be able to provide Nepalese farmers with a low-cost, easy-to-use, functional product that can help aid in agricultural purposes. With the increasing population and high demand for foods, vegetables, meat and dairy products, it is very important to protect the crops to the best of their ability.

As for any country, there are specific needs required for every sector of area in the three regions. For crops, they are in need of improved seeds, specific tools and equipment and fertilizers. In the horticulture sector improved saplings, and irrigation tools are required to provide water for harvesting structures and as well as a storage house for all of the supplies needed. Livestock sectors are in need of improved breeds and feed-efficient breeds, tools for breeding, as well as appropriate fodder and forage crop varieties for the dry seasons. For the agro forestry sector integration of agriculture and forestry is needed, as well as manuals and literacy books provided to help farmers. Many of Nepal's main imports include petroleum products, medicine, machinery and equipment and gold.

With Nepal's growing population rate at a 1.24%, it is very crucial to be able to provide the locals with the items and materials they need to survive. Compared to Canada and Ontario, Nepal is much smaller. However, even though Nepal is much smaller, their population is very high. In this case, most of the land is urbanized to be able to provide the population a place to stay, cutting land away from the agricultural land. Since the land is so much smaller, there is less space to be able to create more produce and livestock producing farms to be able to feed everyone. Not only is the land small, but they are not blessed with the amount of equipment, tools and medicine than Canada is. It is also important to be able to provide jobs for the population to be able to afford to survive. The unemployment rate is approximately 3.5% for youths from age 15-24. This is crucial for when youths are beginning to create their life.

#### Part 1: Product information

The product promoted in this project is quest plastic chicken wire. This specific chicken wire is low-cost, easy-to-use, and is easy to transport across Nepal to the appropriate regions which require it. Quest plastic chicken wire is a strong, plastic, flexible mesh that is easier to use than metal wire (Canadian Tire, 2016). There is no machinery required to install this mesh,

except simple handy tools such as a hammer to keep the mesh in place, as well as wooden posts or metal posts to be attached to. The labour requirement for this product is the setup and maintenance, which is fairly simple and is little to no cost of tools required. The Canadian price for a three foot mesh is 21.99\$ before taxes and shipping for each product. Not only can this product be used as a protection cage for chickens or protect crops, but it can also be used to aid in the production of roofs for the chickens and other smaller livestock. Since Nepal is highly religious and does not support the killing and eating of beef and pork, therefore they may heavily rely on chicken as one of their main meat products sold and produced.

This product is produced in Brampton, Ontario and is sold at local home and hardware stores. The mesh is easy to use and setup, and can simply be attached to metal or wood posts. This product is efficient for all-season because of its no-rust features. This product is made available for a large market of Nepalese farmers since one third of the land is agricultural based, it is important to protect the crops. The plastic mesh works to protect chickens and other small animals and keep them enclosed in a specific area. Since this mesh is plastic and not metal, it is more flexible and easier to move therefore it can also be used to protect crops from other animals and pests. While the holes in the mesh still allow the plants underneath to be sprayed with pesticides and other products to keep it alive and growing.

For the benefits to Canada, it is a good produced locally, and is easy to transport, therefore the money is going back into the Canadian economy and is helpful for both farms and homes. As for the environmental sustainability in manufacturing in Canada, this product may not be a high demand in Canada when it comes to farming and gardening. The meshes are helpful and needed when it comes to planting crops, and protecting them, and creating a support for tomatoes and grapes, however it may not develop a substantial growth in the economy for Canada. Although there are many other items in a higher demand for both Nepal and Canada, this mesh is still durable and easy to use, with low cost, and can help a lot of farmers in Nepal.

Plastic chicken wire is not only used for one specific thing, it has many purposes that can be applied to the Nepalese agriculture. It can protect seedlings, and surround trees in the agro forestry section to protect from weather effects and other animals.

Overall, as a product; plastic chicken wire can be made to be a very important item when involved in agricultural purposes.

## Part 2: Export potential to Nepal

As for transportation in Nepal, many factors are looked at when looking to import and export items. For instance, it is important to know the total cost to ship and manufacture the items, as well as the exchange rates. It is also very important to know exactly where your product is to be shipped and how well and how fast it can get there.

Nepal only has 11 airports that are paved, and 36 that are not paved. Therefore this creates another issue with being able to locate the proper airport to safely transport the goods.

This product would be produced in Brampton, Ontario at the Quest factory. Once it was produced in bulk, it would then be shipped to Pearson airport in Toronto. From Toronto it would fly to Kathmandu, the main capital city of Nepal. The average price for this product in bulk to be shipped there would be approximately \$1100, (Air Freight Forwarding, 2016). The product is most likely to be shipped to Hills and Terai because of its land and its ability to maintain crop growth. As a total amount, it would cost approximately \$3,584 to produce and ship the products in bulk to Nepal.

When the cargo lands in Kathmandu, a truck would have to be provided to transport these products to local farms and markets in the Terai regions as well as the hill region. It would be less likely to transport these products to the mountain regions because they would have less of a use for the mesh. This is because of their inability to produce crops due to colder temperate climates and also the transportation in the mountain would be less time effective and cost more money, because the people of these regions depend on mules for most transportation.

As for storage, these mesh products are easily durable and can roll up easily and be stored in various things such as a shed, a house and even a barn. The cost analysis to achieve profitability would not be as beneficial as one would like. This is because since Nepal is looking for low cost items, the overall price for about 100 of 3 foot meshes would approximately be \$2,484 including taxes without shipping costs. In order to make any sort of profit off of this, the wholesalers would have to list the products at about 25-30\$ a piece, and therefore this price point is not very realistic because then it would not be as affordable for the consumers.

This is the case because the average minimum wage salary for a month for Nepalese workers is approximately \$59 a month, when split up into work shifts, this amount would only be approximately \$3 a shift, which is barely enough to cover living costs, let alone purchase a plastic mesh just for their garden or livestock.

Benefits to the Nepalese nation with this product could lower labour costs to protect produce and keep chickens in order. Since this mesh is plastic, and does not rust, costs will be cut short from having to keep purchasing metal chicken wire after it gets rusted from the climate changes. The more the produce is protected from animals, the greater the production of food made available for the high demand hunger of the consumers. The greater yields of produce created, the increase in money made for local farmers.

As for environmental benefits, the only true benefits given are that the mesh can keep specific smaller animals such as chickens contained, which may make it easier to collect their dropping for fertilizer to use on crops. As well as protecting the produce that can come from the fertilizer obtained from the chickens, therefore the mesh has a dual purpose for farming.

Contact information from Canada for obtaining the plastic mesh is, Quest Brands Inc. 1 Van Der Graaf Crt. Brampton, Ontario. L6T 5E5, (905) 789-6868. For shorter transportation from the Kathmandu airport, the products can be sold at Jyoti Shree Nepal Pvt Ltd hardware store in Kathmandu. Teku Road, Near Stadium, Kathmandu, Nepal. Phone:+977-985-1023882.

The strategy here is to promote the importance of chicken wire for poultry farming and crops. To promote its dual purposes, while encouraging farming and gardening to help with the low food supply. It can be a major necessity because it can not only protect chickens and enclose them, but also protect gardens and produce. Therefore this information concludes that this product has a dual purpose. The duty on agricultural imports was fixed in 2003 at 10% (Nations Encyclopedia, 2016). Exported charges out of Nepal generally range from 0.5% to 10%. Since this product is a fairly cheap and light product, and is easy to transport, and is already produced and sold in stores in Canada, it may not need a loan in order to get the project started.

As for competition, Quest plastic chicken wire is sold out of Canada, however other countries such as America export these goods as well. This product was found to be shipped from Amazon to other potential buyers. Certain barriers may be made from the United States to

Nepal. However, Canada is working on encouraging major imports to Nepal to start occurring in the year of 2017.

To get this project started, certain loans may be required to be able to afford the production of chicken wire in bulk, as well as be able to ship it and transport it locally. Also the exchange rate for transporting these products may be greater than expected. In 2015, the exchange rate for NPR per US dollar was approximately 102.405. In this case, loans may be needed to cover the costs added from the exchange rate.

In conclusion, Nepal is a small poor under developed country that is looking for help in their agriculture industry. The agriculture portion of their country takes up 28% of their land, and the locals highly depend on the local foods to help them survive. This is why it is so important to provide them with equipment, medicine, tools and other items at a low cost to help decrease the poverty level. Quest plastic chicken wire would be an excellent aid in this project. Not only because it is light weight, easy to use, and affordable, but also because it has many different purposes. The overall cost of having a shipment be exported to Nepal is fairly cheap compared to other items. The main uses for the plastic chicken wire provide the locals with so much support in ensuring their live stock and produce stays safe from pests and predators. The overall transportation method is fairly easy. The plane ride to Nepal from Pearson airport is roughly 19 hours and 5 minutes; this gets the products to Kathmandu. From the airport in Kathmandu it is simply driven to a local hardware store to be sold and distributed to the consumers. Overall, this product meets the criteria of being cheap and affordable, easy to use and carry, having dual purposes and has a long survival rate against the changing climates. It is important to be able to transport any necessary goods to Nepal to be able to help and support them in any way that they need.

Part One and Part Two References

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Nepal Agricultural land information from Agriculture Presentation in class on Nepal

Pictures



Plastic chicken wire surrounding chickens as a fence



Plastic chicken wire protecting plants

## PLASTIC NETTING



The various netting for chicken meshes