

Rock Climbing Equipment for Honey Hunting, Tourism, and Research

Kayley Mutton

A Bit About Nepal

Nepal is a landlocked country located between China to the north and India to the south with a population of just over 29 million (CIA, 2016).

This South Asian country contains 3 distinct geographical landscapes: the mountains, the hills, and the terai regions (CIA, 2016). Over one

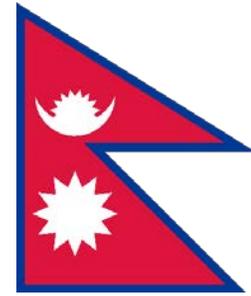
third of the population is employed in the agriculture sector or lives on a

subsistence farm (CIA, 2016). Tourism is Nepal's most profitable industry, followed by various

factory goods like carpets, and agricultural products like jute and sugar (CIA, 2016). Nepal's

biggest trading partner is the populous country to the south, with 61.3% of their exports going to

India and 61.5% of their imports coming from India (CIA, 2016).



(photo: Wikipedia)

Honey Hunting

An ancient Nepali tradition, honey hunting is the twice annual harvesting of wild honey from the

Apis dorsata laboriosa hives found on steep cliff faces in the lower Himalayan mountain region

(Thapa, 2001). In some places, a ritualistic sacrifice is even made to the forest gods before

harvesting, typically in the form of a chicken or goat, to keep the hunters safe during the harvest

(Thapa, 2001). It is common to wear little to no personal protective equipment against bee stings

and to prevent falling. *Apis dorsata laboriosa*, also known as the Himalayan Honey Bee, is the

largest honey bee in the world (Surendra R. Joshi, Ahmad, & Gurung, 2004). This species of bee

is also one of the least researched species' because these bees prefer to build their hives on cliff

faces, making them difficult and sometimes impossible to access (Surendra R. Joshi et al., 2004). Over the last 20-30 years, the number of *A. dorsata laboriosa* colonies has significantly decreased (Surendra R. Joshi et al., 2004). For example, a study of four river valleys in the Kaski district, known for being home to this species of honey bee, saw in some cases a more than 50% decrease in the number of colonies (Surendra R. Joshi et al., 2004). Most existing honey hunting practices are quite destructive to the hive, especially when the hunters don't leave enough of the honeycomb and food stores left for the colony to recover (S.R. Joshi & Gurung, 2005). It is common for a large number of the colony to be killed during the harvest and it is suggested that honey hunting is one of the reasons for the decline in the *A. dorsata laboriosa* bee population (S.R. Joshi & Gurung, 2005). Another thing that is currently practiced is lighting a fire beneath the comb to smoke all of the bees out but a study has shown that a safer and more controlled method is to spray the comb with sugar syrup to distract the bees and then use a bee brush to move them to the side, off of the piece of comb that you wish to harvest (S.R. Joshi & Gurung, 2005). If honey hunting were to be made a safer – and therefore more appealing – practice for the Nepalese, it is possible that the hunters may harvest the wild honeycombs more than just twice a year. A method of honey hunting much less destructive than current practice is simply to take less of the honeycomb at a time (S.R. Joshi & Gurung, 2005). Making it a safer and easier experience will allow multiple harvests a season, promoting the building of the honeycombs to increase yield, and honey bee health. By ensuring an increased survival rate of the bees, it is creating a more sustainable practice and a job security in that reducing honey bee loss means that there will always be more honey to harvest the next year.

Tourism

Another positive impact the rock climbing equipment will have on Nepal's economy will be the attraction to tourists. Tourism is Nepal's most profitable industry and it relies on its beautiful landscape like the Himalayan Mountains to attract tourists (CIA, 2016). Honey hunting and *A. dorsata laboriosa* are quite unique to specific regions in Nepal and many people may be interesting in witnessing this ancient tradition and experiencing this aspect of Nepali culture. Mount Everest also serves as a big attraction to Nepal and it is certain that they use rock climbing equipment in the Himalayas. Since rock climbing appliances are already being actively used across Nepal, that means that the people are already familiar with the equipment and may be more open to implementing their use in other sectors.

Honey Demand

In 2001, raw Nepalese honey was worth around \$25-30 US per kilogram and the money was commonly spent by the whole village on its collective wellbeing (Thapa). Recently there has been a high degree of honey bee losses all over the world, including Canada, United States, China and Europe (Clermont, Eickermann, Kraus, Hoffmann, & Beyer, 2015). This means that honey is in demand in some of the world's most developed and populated countries.

Medicinal Uses

In Nepal, honey is used as a home remedy for gastric problems, pharyngitis, and the inflammation of the nasal mucous membrane also known as hay fever (Quave et al., 2010). It is also found that honey harvested from high altitudes contains more antioxidants than honey from lower altitudes (Neupane et al., 2015). Honey can also be fed to cattle and the Nepalese believe that it helps to increase milk yield (Thapa, 2001).

Research

There is a lack of education on the importance of the *A. dorsata laboriosa* and therefore a tendency to over exploit by practicing destructive honey hunting methods (Surendra R. Joshi et al., 2004). I have mentioned before the great decline in Himalayan Honey Bee colonies over the last 20-30 years and it is in part due to a lack of education on the species. It is difficult to find information on the behaviour, production rates, and susceptibility to diseases of the *Apis dorsata laboriosa* because there have not been many studies published on them. The rock climbing equipment could also be used by scientists or beekeepers who wish to study the Himalayan honey bee, or monitor the colonies on a regular basis to keep track of hive health and honey production rates.

Part I: Product Info

The Product



(photo: Financial Post)

My export idea to Nepal is Canadian rock climbing equipment to be used for honey hunting, in the both the agriculture and tourism industries, as well as in research. The company I have chosen is called Mountain Equipment Co-op (MEC) and they are based in Vancouver, British Columbia. They sell a wide variety of outdoor sporting equipment, tools, and apparel. There are three rock climbing items in particular that I am proposing: a harness, a carabiner, and rope. These items all play a role in ensuring a safe experience for the climber. The harness is to make sure the climber doesn't fall, while also allowing free range of motion in the upper

body and arms. The carabiner is for quick and easy hooking and unhooking as the climber makes their way down the rope ladder, as well as the metal offering more reinforcement than rope would. Finally, the rope is to act as a safety precaution and catch the climber if they were to slip and fall or become unconscious due to anaphylactic shock from the bee stings. These three items can be exported from Canada separately and in bulk, creating an opportunity for a start-up company in Nepal to receive these separate shipments and assemble the items into a fully functional honey hunting “kit” which will then be sold throughout Nepal. As for use in Canada, we use rock climbing equipment as a recreational sport instead of a harvesting tool but the idea is the same in that the equipment is there to keep climbers safe and prevent falls from large heights. Aside from periodic replacements over the years, I imagine the demand being around 100 pieces of each item.

Price Comparison: Domestic

There are a number of other Canadian companies that sell the same products as MEC, but there is one in particular that provides almost identical models and brands. Atmosphere is a part of the Forzani Group, a collection of sporting good stores based out of Calgary, Alberta (FGL Sports, 2016). The names, prices, and item numbers in the following table were taken from the MEC and Atmosphere company websites in November 2016.

Company	Product			(CDN)	Contact Information
	Harness	Carabiner	Rope	Total Package	
MEC	Black Diamond Primrose Harness \$54.00 <i>Item #5039-761</i>	Black Diamond Positron Screwgate Biner \$10.00 <i>Item #5007-000</i>	Edelrid Pika 9.8mm Rope (60m) \$157.00 <i>Item #5046-716</i>	\$221.00	1-888-847-0770 info@mec.ca

Atmosphere	Black Diamond Primrose Harness \$59.99 <i>Item #331787761</i>	Black Diamond Positron Screwgate Biner \$10.99 <i>Item #332072486</i>	Mammut Eternity Classic 9.8mm Rope (60m) \$199.99 <i>Item #331984132</i>	\$270.97	1-855-496-2866
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Price Comparison: International

Alibaba, which is the Asian equivalent to Amazon, provides a wide selection of similar rock climbing equipment made by different Chinese manufacturer. All of the information in the table below was taken from the Alibaba website.

	Item (USD)			
Company	Harness	Carabiner	Rope	Location
Mountain Equipment Co-op	\$71.55	\$13.25	\$208.03	Vancouver, Canada
Wenzhou Success Group Co., Ltd.	\$25-28			Zhejiang, China
Taizhou JOHA Lifting Protective Equipment	\$9.40-10.84			Jiangsu, China
Wenzhou Huachan Metal Products		\$0.50		Zhejiang, China
Winnerlifting Industry and Trading Co.		\$0.11-3.54		Zhejiang, China
Jiangmen Xinhui Baiyuheng Webbing			\$6.00	Guangdong, China
Shenzhen Chengxingying Trading Co.			\$28.20-31.80	Guangdong, China

The items listed on Alibaba are significantly cheaper than the equipment being sold at MEC. In

addition to a better price, the products listed above are all manufactured in mainland China, making it easier and cheaper to transport to Nepal since it is so much closer than Vancouver. However, if they were to import rock climbing equipment from China, the Nepalese importers would have to transport the goods through the Himalayan Mountains than line the northern border of the country. Also, the MEC equipment suggested is not manufactured in Canada: the harness is made in the Philippines, the carabiner is made in China, and the rope is made in Germany (MEC, 2016).

Market Opportunity

Since honey hunting is not widely practiced throughout Nepal, the rock climbing equipment for the purposes of collecting honey would be considered a niche product. Honey hunting is also currently a seasonal activity with only two harvests per year however the plan is that the implementation of the rock climbing equipment will allow hunters to harvest more often and in less destructive ways.

Part II: Export Potential to Nepal

Transportation Logistics

One of Nepal's challenges that affect economic growth is the fact that the country is landlocked and mountainous, meaning that building good roads can be challenging and Nepal doesn't have its own port for the easy trading of goods (Dvwrod et al., 2015). Mountain Equipment Co-op is based out of Vancouver, the largest ocean transport hub in Canada (Port of Vancouver, 2016). The method of transportation I am recommending for my product is by ship from Vancouver to Hong Kong, then Singapore, and then finally arriving in Kolkata, India. From there, the products will be transported by truck up to Nepal and will be delivered to a start-up Nepalese company where the three items will be assembled into "Honey Hunter Kits".



<http://www.lahistoriaconmapas.com/>

Before exporting Canadian products, it is important to submit an export declaration to the Canadian Border Services Agency (CBSA, 2016). In this case, the form would be called an NDR2, which is for non-restricted commercial goods with a value of less than \$2,000 CDN (CBSA, 2015). For further information, the Canadian Trade Commissioner Services will assist you in exporting your goods, whether it be by getting you in contact with potential importers

abroad, helping you create and implement an export strategy, or simply by offering relevant advice (Port of Vancouver, 2016).

Trade Deficit

As one of the most underdeveloped countries in the world, Nepal has a wide trade deficit and continually imports far more goods and services than they export, each year (Dvwrod et al., 2015). Though Nepal borders on two of the world's most giant economies, more than half of the population lives under the poverty line and the rate of economic growth is low when compared to China or India (Dvwrod et al., 2015). The goal with importing rock climbing equipment is to increase wild honey yield, improve upon current honey hunting methods to promote honey bee health, to appeal more to tourists and potential researchers and to gather information on the *A. dorsata laboriosa* species to better understand and educate their importance in the ecosystem. The potential of this import of Canadian goods to Nepal is to create a opportunity where international imports lead to domestic economical growth (Dvwrod et al., 2015). By importing this one group of niche products, Nepal will increase its export potential and income in three sectors: agricultural products, tourism, and education.

Recommendations

It is unlikely that there will be much export potential for MEC rock climbing equipment to Nepal since it would be much more affordable to get the same products from China. However, the suggestions for possible uses and benefits in the agricultural, tourism and research industries remains the same. It would also be worth looking into what it would cost to start up a honey bee colony in Nepal and whether that would be a more cost efficient, and not to mention safer, approach to increasing honey yield. There were also some costs that I was unable to find like the

cost for shipping, the cost of trucking from Kolkata to Kathmandu, import taxes, and any additional transportation duty fees.

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