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The Wild Honey Value Chain in Cambodia: Areas for Improvement

Molyvann By^a and Garry Griffith^b

^a Postgraduate student, Faculty of Veterinary and Agricultural Sciences, University of Melbourne, Parkville.

^b Faculty of Veterinary and Agricultural Sciences, University of Melbourne, Parkville; UNE Business School, University of New England, Armidale; and Global Food Studies Program, University of Adelaide, Adelaide.

Abstract

In this paper the value chain for wild honey in Koh Kong province, Cambodia, is evaluated. The main objectives are to identify the key constraints and to suggest interventions to improve the value chain of wild honey, so as to improve the livelihoods of the people in rural communities, especially the forest dwellers. Developing the value chain for wild honey complements government policy in alleviating poverty in the rural areas in Cambodia. The results suggest that the wild honey value chain in Koh Kong province is not performing well and the whole chain needs to be improved. Since honey is harvested by small-scale villagers and managed by a village-based honey association, the suggested interventions to develop this value chain would be assisted by strengthening a partnership of government, non-profit organizations (NGOs), the Honey Association and the honey business firms.

Key words: wild honey, value chain, Cambodia, public-private partnerships.

Introduction

Background

Honeybees play a crucial role in the environment since they are key pollinators for wild flowers and for agricultural crops. According to Oldroyd and Nanork (2009), honeybees pollinate approximately one third of all crop species. Generally, in one trip, they can visit from 50 to 1000 flowers and take around 30 minutes to four hours according to the available forage (Oldroyd and Nanork, 2009). Honeybees can fly from 1.5 km to 2 km for their pollinating job (Dyer and Seeley, 1991). The presence of honeybees helps balance the biodiversity of the world due to their great numbers and their pollination work (Bradbear, 2009). Honeybees play a key role in the production of seed-bearing plants such as grains, nuts, and fruits which strongly depend on bee and other insect pollination (USAID, 2009).

Recently, the number of honeybees worldwide has decreased significantly due to illegal logging in forests, rampant land concessions, and large-scale development activities such as mines and hydropower dams in some key environments. Moreover, pesticides and insecticides used in agriculture and farming activities also contribute to the loss of honeybees. Another threat to bees in developing countries where wild honey is produced is poor techniques of honey harvesting. Some

honey hunters are not aware of effective harvesting techniques and they collect and kill all bees in the colony (Simukoko, 2008).

Honey and honey products have many uses. Honey can be sold in different forms including comb honey, cut comb honey, comb honey in fluid honey, chunk honey, crushed honey, liquid honey, jellied honey (mono floral heather honey), creamy honey, crystallized or granulated honey, and mead (Traidcraft and SCF, 2007). Honey can be distinguished by its geography, country of origin, bee species, production types (organic and fair trade), feral colonies, vegetation and ecology, and the part of the plant where the honey is located. Honey can target various customer preferences and market segments through its different categories. Specifically, honey can be used as food (processed food, traditional recipes, food supplements), drinks, natural medicine, home remedy, cosmetics, pharmaceuticals, and industrial products, as summarized in Table 1.

Table 1: Application of honey across different product categories

Product categories	Products	Characteristics
Food	Honey, raw and industrial	Delicacy, health food
Natural medicine	Honey, raw and industrial	Home remedy
Home remedy	Cough syrup	Therapeutic agent
Processed food	Lozenges, confectionery, bakery	Delicatessen
Traditional recipes	Nougat, Turkish delight, Baklava	
Food supplements	Royal jelly in honey	Carrier of therapeutic ingredients
	Bee venom in honey	Raw materials or sweet additive
Alcoholic drinks	Mead, honey beer, liquors	Improvement of appearance and skin care effect
Cosmetics	Creams, hair shampoo, soap, bath salt	Therapeutic agent
	Ointments, wound dressing	Ingredient for cosmetics
Pharmaceuticals	Powdered honey and jellied honey	
Industrial products	(Dehydrated honey products)	

Source: Market Survey Honey and Beeswax (CBI, 2002, 15).

The Roles of Wild Honey Harvesting in Cambodia

Wild honey harvesting plays two important roles in Cambodia. The first one is improving the livelihood of people in the rural communities, especially forest dwellers and indigenous people in Koh Kong, Preah Vihear and Monduliri provinces. Harvesting wild honey has been traditionally and widely practiced through many generations. It is a main activity that can generate supplementary income. Besides selling honey, those people keep honey for their own consumption, especially for medicine, food and traditional liquor brewing (FAO, 2009). Honey is believed to be an effective remedy for many kinds of illnesses. Collecting wild honey is an activity that prevents people from having to migrate to other places to earn a living. Thus, wild honey collecting plays a significant role in improving livelihoods in the rural areas of Cambodia.

Another major role of wild honey harvesting is forest conservation. Since wild forest honey is defined as a potential non-timber forest product (NTFP), it contributes to achieving the dual purposes of forest resources preservation and offers a reliable resource to people in the forest communities (FAO, 2009). When the forest belongs to the people in the communities, it can be conserved from illegal logging by outside agents.

Rationale and Objective

Cambodia is known as a potential place for honey harvesting due to its tropical climate, biodiversity of forests and geographical area (Watson, 2010). As wild honey collection has been carried out across many generations in Cambodia, this activity is undertaken using traditional methods with a

subsistence orientation. The wild honey value chain has been facing many challenges recently including low quality and insufficient quantity to meet the demand of the market, and it is largely unsustainable in its present form with high market instability and price volatility. Honey harvesting is mostly done informally with poor harvesting techniques that result in low quality and quantity. Therefore, this study is conducted in order to add more value to the chain to enhance the livelihood of rural communities and forest dwellers through improvements in sustainable harvesting and collective marketing.

Mapping and Strategic Fit

Mapping the Value Chain for Wild Honey

Actors in the value chain

Since the value chain of wild honey is traditional, there are not many actors involved in the chain. The important actors are honey hunter, collector, trader, processor/wholesaler and the consumer (Figure 1).

Honey hunter: there are two types of honey hunters, professional and opportunistic. Most of the professional honey hunters appreciate the environment and harvest honey with sound harvesting techniques that do not collect or kill all the bees in the colony. The opportunistic honey hunters are simply exploiting the resources in the forest including resin gathering, charcoal production, collecting firewood, clearing land for farming or herding cattle. Most of them do not have essential skills in harvesting honey and are likely to adulterate honey in the chain.

Collector: the collector can be a honey hunter who buys honey from other hunters to prepare liquid honey in approximately 20 litre containers to sell in the village or transport to other villages.

Trader: the traders are mostly women who collect honey from the hunters and retail to a loyal customer base or to merchants for sale in the market stalls.

Retailor/processor: most are small enterprises and NGOs. Value can be added in this segment including by processing, bottling, and labelling. This honey is sold for a high price but the quality of honey is guaranteed.

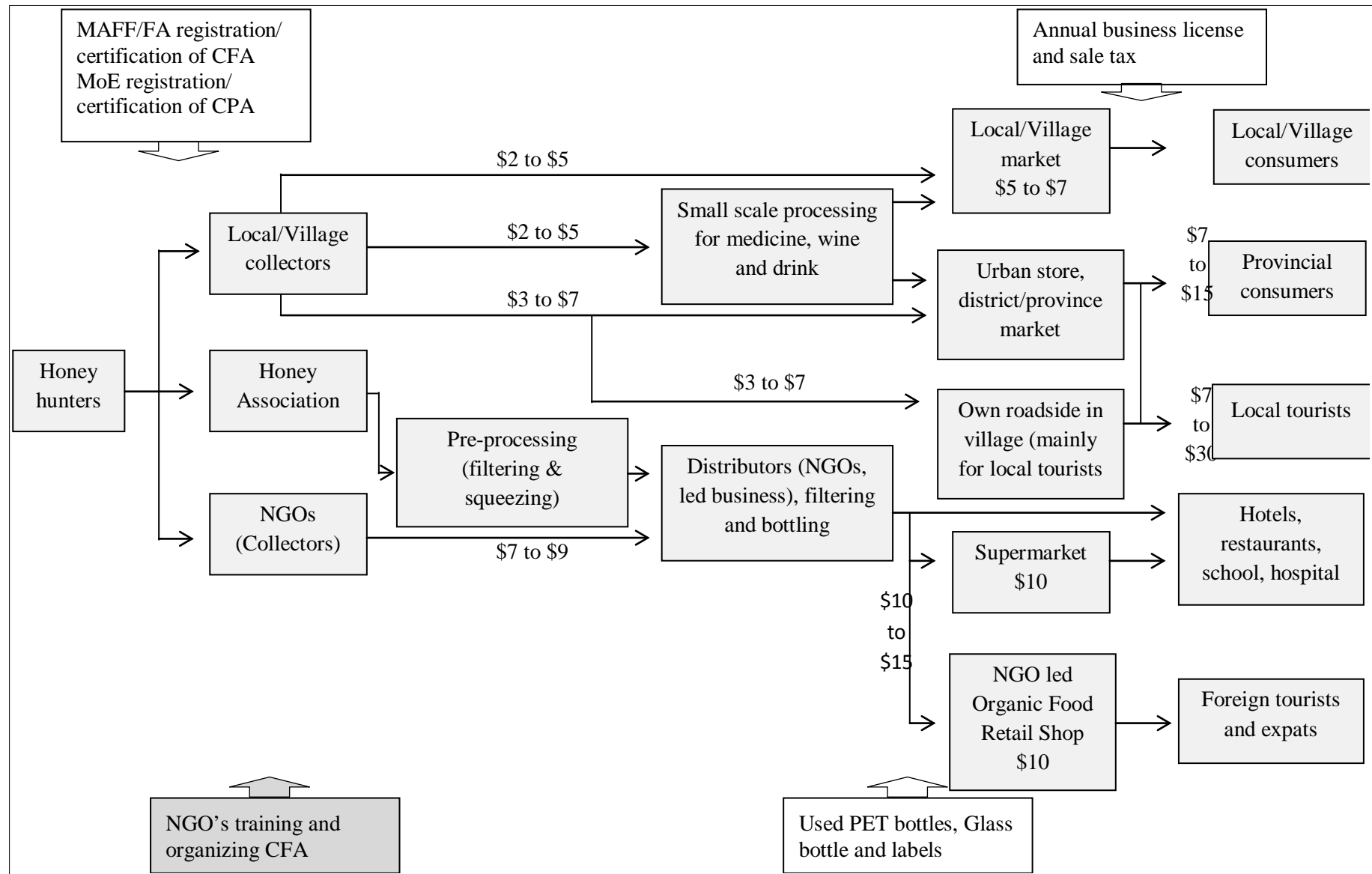
Market segments of the wild honey value chain

As shown in Figure 1, the five consumer markets in the wild honey value chain are local/village buyers, provincial consumers, local tourists, foreign tourists and expatriates, and big city buyers such as hotels and restaurants (Peramune, 2009).

Local/village buyers: the market is in the village where trust is high but affordability is low, and honey is mainly consumed for medicinal purposes. The price of honey ranges from \$5 to \$7 per litre¹.

¹ \$US

Figure 1: Mapping by value (Source: Peramune, 2009)



Provincial consumers: Honey is repackaged in plastic bottles and the price of honey is from \$7 to \$10 per litre. Most of the consumers use this honey for medicine and food.

Local tourists: this market is made up of roadside stalls, local food outlets and provincial market centres where local tourists gather. Trust is high as the tourists need pure wild honey and the price of honey is from \$15 to \$30 per litre.

Foreign tourists and expatriates: honey is packaged in a nice bottle with a proper label and sold in supermarkets, Organic Food Shops, and NGO operated stores, mostly in Phnom Penh. The price of honey is from \$10 to \$15 per litre. There is high demand for honey in this market.

Big city hotels: this kind of market requires good quality honey and all year round supply. They use honey for bakery, jams, pastries, pancake, roasting meat and specific dishes.

Local tourists are willing to buy wild honey for \$15 to \$30 per litre while other markets pay less than \$15 per litre of honey. Supermarkets in the cities cannot sell wild honey for a high price due to the lower price of imported honey from other countries such as Thailand, Vietnam and China and even Australia. According to Peramune (2009), in the Cambodia wild honey business development strategy, there is a potential opportunity to extend its market by building customer preferences through Eco tourism sites (by developing inter-community linkages among honey communities and eco-tourism communities), local tourist routes (by setting up association-operated community sales points positioned along the busy routes and in key areas), souvenir products for foreign tourists, reliable Cambodian brands for Phnom Penh markets, and honey- and bees wax-based products.

Performance Analysis

Constraints and challenges

The wild honey value chain faces many challenges as summarized in Figure 2. One of the major constraints is that the chain does not have many honey hunters but it has many intermediaries such as collectors and roving traders who sell honey to the wholesalers and then onto the next levels. The price of honey is very high when it reaches the end users. According to Sherchand (2009), the price margin of honey ranges from 10% to 150%. The high cost of logistics and the low quality of honey drive this chain into the situation that the hunters cannot produce more honey and the consumers cannot afford to buy more honey regardless of the small amount that they desire.

The next constraint is that most honey processors are small scale enterprises that have low processing capacity with high cost of raw materials. To break even, the processors have to sell wild honey products at prices higher than the imported honey in the supermarkets. As a result, wild honey cannot compete with imported honey.

Another major constraint is involved with the low quality of honey. Since there is no information flow back from the buyers to the hunters and the collectors, there is no feedback on quality improvement, and the quality of honey remains poor. Most of the honey hunters are not aware of efficient harvesting techniques, quality control and hygiene practices, and this leads to the contamination of honey during harvesting and filtering stages. Moreover, some collectors add a solution of water and sugar into the honey to gain more volume during the bottling stage.

Therefore, the serious challenges in the wild honey value chain in Cambodia are weak market linkages due to the lack of distribution channels to access potential markets, the limited knowledge of hunters and collectors, and the lack of a traceability system to control the quality of honey.

Intervention and supports

In looking for ways to improve this value chain, note was taken of the principles outlined in the supply chain texts such as Chopra and Meindl (2013), the case studies described in the toolkits promoted by various development agencies such as Valuelinks (Andreas, 2008) and M4P (Berg et al., 2008), and examples from other countries such as Ethiopia (Oxfam GB, 2011), Uganda (UNDP, 2012) and Zambia

(Simukoko, 2008). The conclusion was that the situation of the wild honey value chain can be improved, but this will depend on the intervention of other stakeholders including government, NGOs, the Village Based Honey Association and all the actors in the whole chain, as summarised in Figure 3.

The most important interventions are to improve the quantity and quality of honey through conducting training on production and maintenance, quality control/traceability and hygiene practice for the honey hunters and collectors. Promoting a greater number of honey hunters and conserving honeybees are crucial activities in this stage. The next intervention is to provide financial access (Calvin and Linda, 2010), technology in processing, packaging and storage to collectors, processors and traders to develop their business faster. Since relationships in the chain are relatively weak, improving communication among the actors is also important as it can build trust. More formal market linkages among targeted markets such as supermarkets, restaurants, hotels, schools, hospitals and spas have to be established. There is a need for the government to assist in developing honey standards for the industry and expanding market opportunities for honey and honey products. To improve the wild honey value chain, many stakeholders need to collaborate.

Strategic fit

The competitive strategy of the wild honey value chain is to produce good quality honey with a reasonable price for the consumers that can compete with the imported honeys from other countries such as Thailand, Vietnam and China. However, at present, wild honey production cannot meet the demands of the consumers: the quality is still low and the price is still high compared to those imported honey products.

In order to achieve a better strategic fit, there are two possible ways to improve. The first is to implement a long term strategy to gradually shift from wild honey harvesting to beekeeping. By doing this, in conjunction with the training and other interventions mentioned above, the villagers can produce more honey and secure production for the markets. With increased output of more reliable quality, the issues related to high price of honey will start to be dampened down. Since the targeted customers prefer high quality honey at a reasonable price, beekeeping is a feasible strategy to generate surplus for the chain. Much depends however on the success of the suggested capacity-building activities and the willingness of the stakeholders to collaborate in providing sufficient resources and incentives for the villagers to make this change.

Another possible but more uncertain way to achieve a better strategic fit is to apply for Fair Trade certification and export honey to the developed countries such as the European Union. Since those affluent countries especially appreciate wild honey, with its unique taste and quality, and willingly pay premiums for such products, it may be feasible to keep harvesting the wild honey in the traditional way and export it to these affluent countries. However, there are high costs involved in upgrading, and many examples in the literature where such investments have not paid off (Griffith et al., 2016). There is a need to have strong support from all stakeholders for attempting this strategy, especially government investments in credible standards and inspection processes.

Figure 2: Constraints and Key Challenges (Source: USAID Cambodia MSME, 2009)

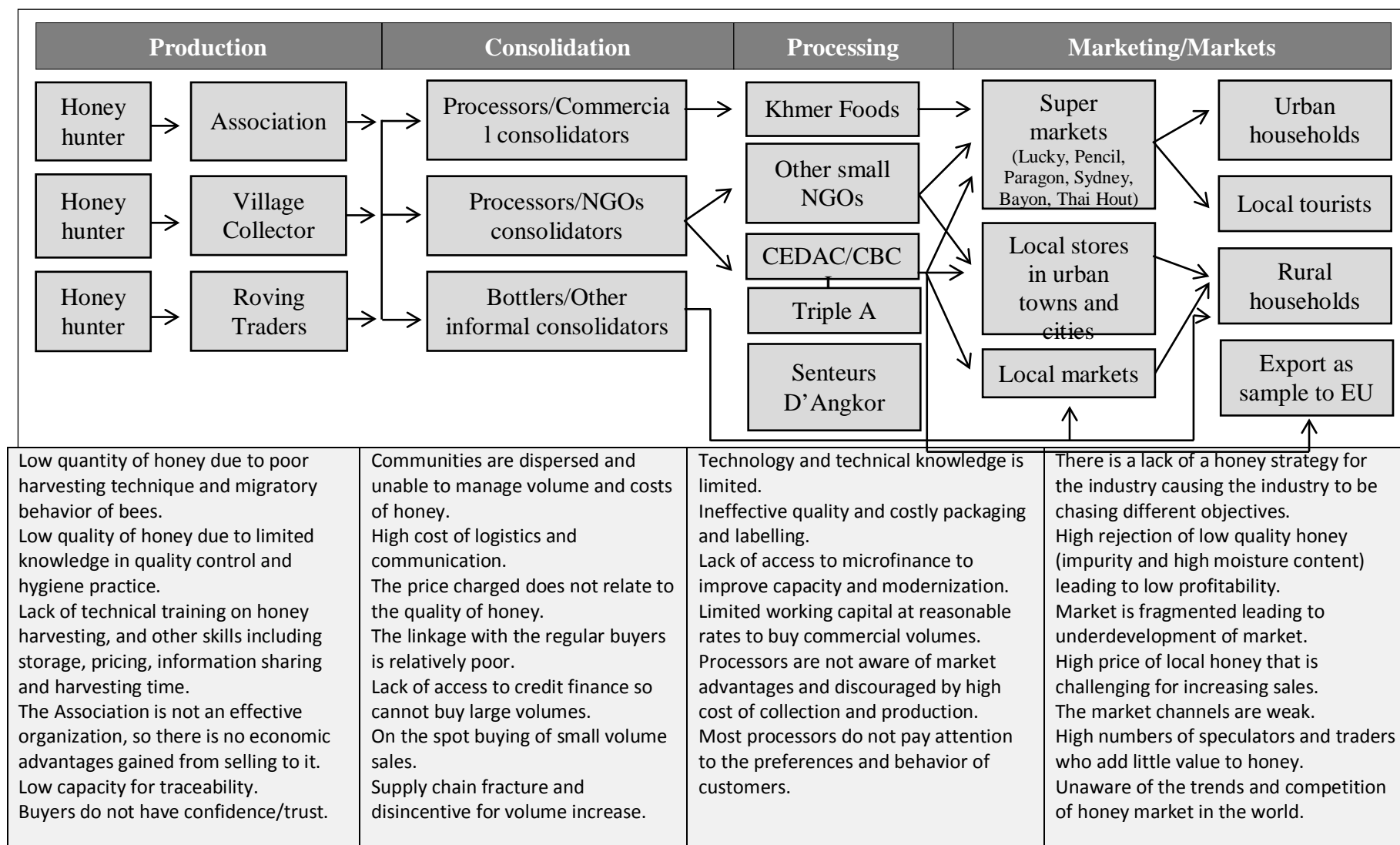
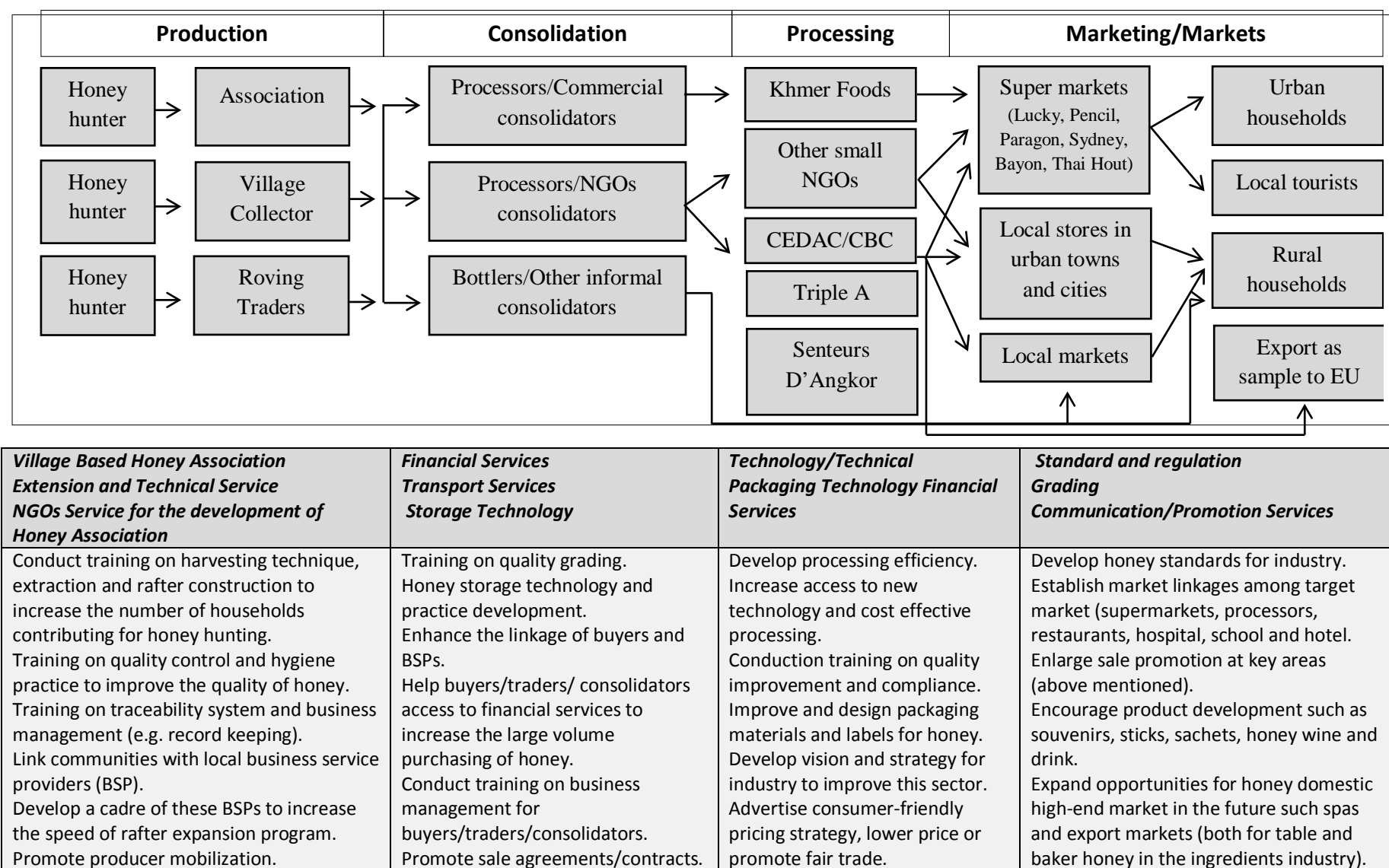


Figure 3: Potential Interventions and Supports (Source: USAID Cambodia MSME, 2009)

The Roles of the Wild Honey Value Chain in Sustainability

Environment

Wild honey collection provides the villagers with a supplementary source of income without requiring any activities that are harmful to the environment. Furthermore, the harvesting of wild honey contributes significantly to the forest conservation. Since honey is a major part of NTFP, it raises awareness among people and forest dwellers about proper forest resource exploitation. Through honey communities, the forest can be conserved from illegal logging and other activities that destroy the forests. Another important point that is advantageous to the environment is involved in the activities that bees pollinate wild flowers. These activities lead to the balancing of the biodiversity in the forests.

These attributes of environmental sustainability could be built upon with whole-of-chain vision and actions.

Social

Harvesting wild honey creates many jobs in the rural areas, and helps prevent people from migrating to live in other places. This additional job improves living conditions and relationships between the people in the communities. As well, the isolated people in the forest have better communication networks. On the other hand, when only some people earn more money from this job, there are increased social tensions and increased minor crime such as thieves.

Conclusion and Recommendations

In summary, improving the wild honey value chain is crucial to the livelihood of Cambodian rural communities, especially the forest dwellers in Koh Kong province. At present, this value chain is relatively unsustainable due to the remote location and the seasonal nature of harvesting. The market linkage is weak due to the lack of distribution channels to access potential markets and the lack of traceability systems to control the quality of honey. The collective intervention of stakeholders including government, NGOs and Village Based Honey Association are vitally important to improve this value chain. Since the competitive strategy of this chain is to provide good quality honey together with a reasonable price in the markets, there are two possible ways for this value chain to achieve its strategic fit. One way is to shift from wild collection to beekeeping to increase the volume of honey for the markets. Another possible way that does not require shifting to beekeeping is applying for Fair Trade certification. This way allows wild honey to enter high value European markets, but requires complicated processes and support. Other recommendations to develop the wild honey value chain include paying serious attention to improving the quality and quantity of honey, building trust and relationships among the actors in the whole chain, developing market intermediaries, improving market access and enabling a more efficient business environment for honey and honey products.

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