





Production and Processing of Edible Insects for Improved Nutrition

# Market Potential of Hornet (*Vespa* sp.) in Eastern Shan State, Myanmar

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## Background

- Eastern Shan State, a border gate to Thailand, Laos, and China, is known
- Hornets are the most expensive edible insects; prices vary according
- Six types of marketing chains can be distinguished depending on

- for its diversity in ethnic groups such as Shan, Burma, Kachin, Lisu, Ann, Akha, Wa, Danu, and Larhu.
- A big variety of edible insects can be found in that region such as bamboo worms, silkworms, cicadas, hornets, and crickets, which are mostly eaten by these ethnic groups.
- Unlike other edible insects, hornet is very rare because harvesting is very dangerous and can even cause death.
- But it is available in Eastern Shan
  State in various forms.

to the size and form of the hornet.

- Availability is seasonal starting in August and ending in November.
- Hornets are sold on the market in various forms such as fresh alive, fried, or mixed with alcohol.
- Besides human consumption, hornets are also used with medicinal purpose.
- Mixture form of hornet and alcohol is used to protect and cure strokes and inflammatory diseases.



1. collected amount of the hornets,

2. market distance,

Results

- 3. location of the hunter's village and colleting area,
- 4. economic condition of the villagers,
- 5. freshness of the hornets, and
- 6. form of the product.
- As hornets are rare and expensive, most of the locals are able to buy them only once per season for eating purpose.
- Mixtures with alcohol can be used many times by adding more alcohol.
- Thus, only few portion(less than 5 % of total hornet) is used for medicinal purpose.

## Objectives

To examine the present use and the market potential of hornets.

## Methods

Conducting observations in the research areas and face-to-face interviews with local people, including hunters, wholesalers, processors, retailers, and consumers.



Photo 2: Raw type of hornets



According to wholesalers, 75% of the hornets from Kyaingtone market is transported to border areas of China, Laos, and Thailand, where about 50% of consumers are foreigners.

# Conclusions

- Hornet is a prospective product for earning foreign income, however, it is difficult to export hornet larvae alive legally.
- Commercial processing technologies to add value and export to neighboring countries should be developed.

#### Photo 1: Interviews with local people

a b Photo 3: Processed form of hornets a) mixture of alcohol and hornets b) deep-fried hornets

 Although hornets have been used as a traditional medicine, few scientific research exist.

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