

Organizational & Personal Development for the Improvement of Value Chains in the Agricultural Sector & Food Industry
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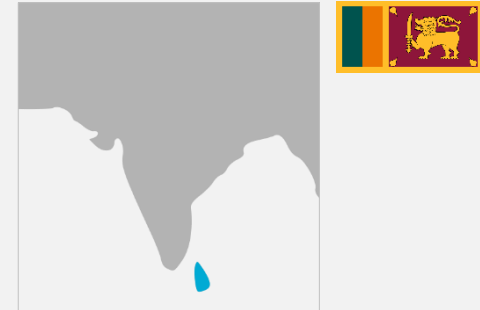
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Outline

1. **Introduction** (Honey bees, Industry, Terminology, Consumers, Products, Status)
2. **Background** (Beekeeping in Deltota)
3. **Research Methodology**
4. **Case Studies**
5. **Value Chain**
6. **SWOT Analysis**
7. **Improvement of Value Chain**
8. **Investment Opportunities**
9. **Conclusion**

1. Introduction

- Sri Lanka is an island in the Indian Ocean
- Population – 21.5 million
- It has a land cover of 65,610 km²;
 - Agriculture 36%, Forest 29%, Settlements 35%
- Industries (SMLE) – 131,387 establishments
 - Small Enterprises – Nationally 92%, Kandy District 7%



Honey Bees

Introduction continued

- **Honey Bees; *Apis cerana*** (common, medium in size)
 - There are 03 other bees; the giant (*Apis dorsata*), the dwarf (*Apis florea*) and a species of stingless honeybee called dammar (*Trigona iridipennis*)



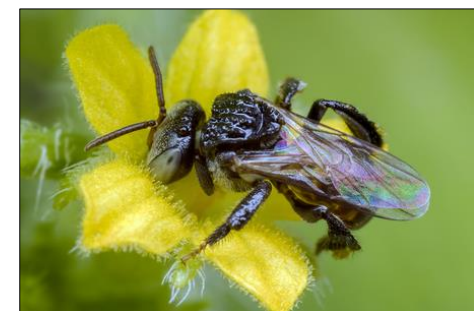
Apis cerana



Apis dorsata



Apis florea



Apis iridipennis

Beekeeping Industry & Techniques

Introduction continued

- Beekeeping is an informal industry at cottage scale
 - Honey hunting, primitive beekeeping, hobbyist beekeeping, state-aided beekeeping and now emerging private sector and cottage industry



Terminology

Introduction continued



Main Consumers

Introduction continued

- Ayurveda Medication for;
 - Loss of appetite, soar throat, weight loss, heart diseases, fractures, wounds, dihorrea, eye sight, asthma, vomiting, cough, detoxication, etc.
- Beauty Culture Industry;
 - Skin tone, complexion, figure & shape
- Confectionary Production;
 - Ingredient, bee wax to lubricate machinery

Products and value additions

Introduction continued

- Natural raw honey; sweet & bitter
- Bee wax (by product), bee colonies
- Value added products (Garcinia mixed honey, Cinnamon mixed, Garlic mixed, Bee Pollen, Cashew in honey, Pumpkin seeds in honey, gooseberry mixed, moringa mixed, *Centella* mixed, Bee Balm)



Cinnamon / Cashew



Pollen in Honey



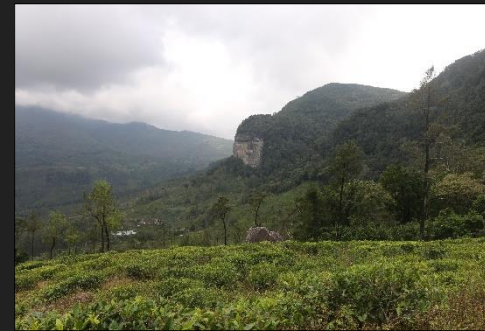
Honey with Comb

Current Status

Introduction continued

- Annual production – 125 MT (2018)
- Exports – 7 MT (2018)
- Imports – 163 MT (2018)
- Price of 1 L – LKR 3,000 = USD 18
- Honey demand = Annual Production + Imports – Exports
= 125 MT + 163 MT – 7 MT = 281 MT
- Price of 1 MT = (Price of 1 L x 1000) / 180 = USD 18,000(1 USD = LKR 180)
- Consumption = USD 18,000 x 281 ≈ USD 5 M
- **Industry Net Demand Raw Honey ≈ USD 5 M**

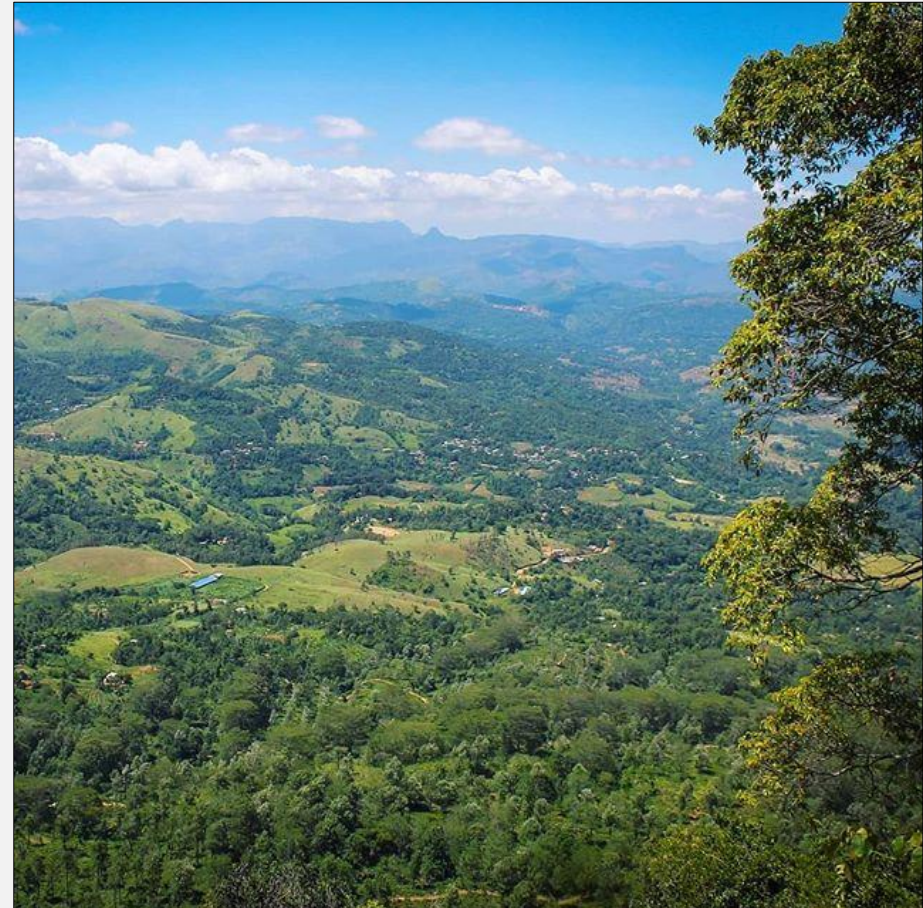
2. Background



Beekeeping in Deltota

Background continued

- Area of Deltota – 49 km²
- Total Population – 32,674
- Villages – 88
- Agriculture – Tea and Vegetables
- Beekeepers – 60 Families
- No of Bee Colonies – 115
- Honey Production – 143.75 L (2018)
- Alternative livelihood option



3. Research Methodology

- Research population – 60 beekeepers
- Sample size – 30 beekeepers
- Sampling method – Snowballing / monitoring (free beekeeping training offered by Vidatha)
- Face-to-face interviews



4. Case Studies

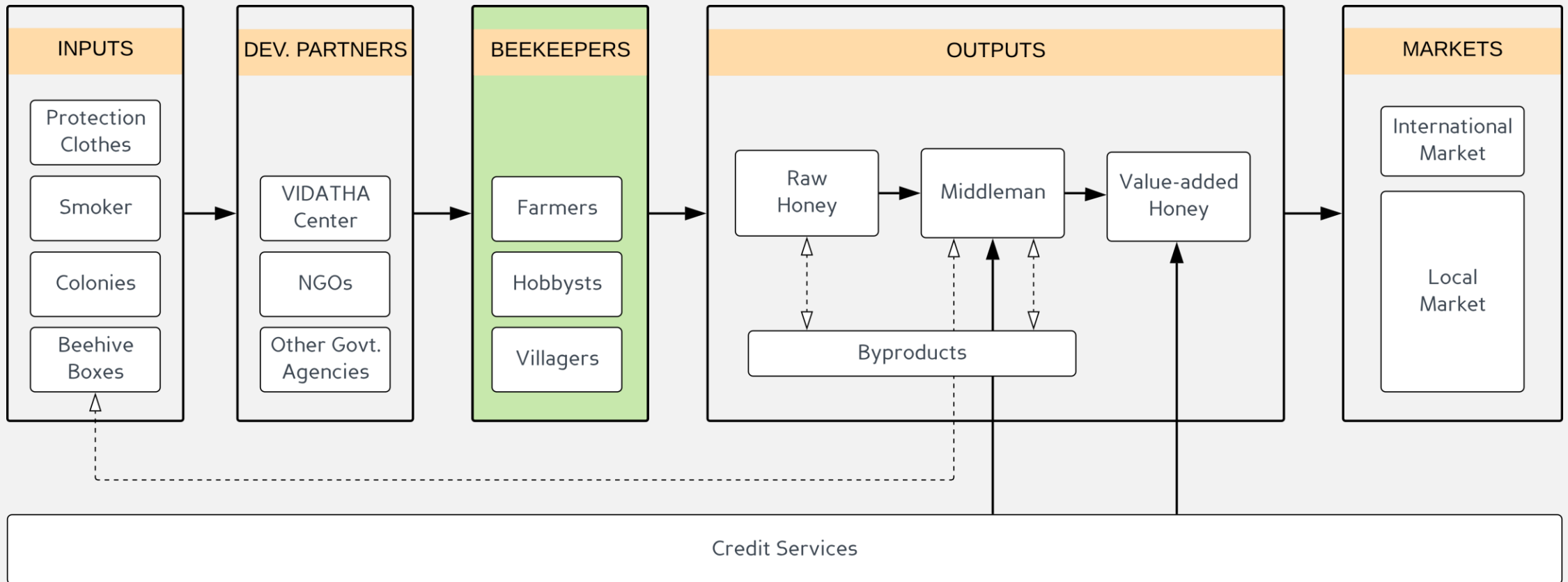


NIMAL: A 50 year old taxi driver. Saved enough money from his job in Dubai, retired and back in Sri Lanka. He has invested in a small tea plantation, and diversified into beekeeping as a hobby. In 2018, he received beekeeping training and a free beehive box from Vidatha Center. He obtained further training on beekeeping. Now he owns 07 beehive boxes in his small tea plantation. He sold his first honey production directly to consumers recently, got more demand and now plans to expand beehives to neighboring lands on profit sharing basis. He is planning to sell bee colonies soon.



JAYASEKARA: A 30 years old entrepreneur. Started beekeeping in 2017 with 02 beehive boxes. Now owns 16 beehives. Received training and box from Vidatha centre and now makes USD 750 per year. He has sold 40 colonies and 45 L of honey in the past 2 years. He envisions to develop his business into a small cottage industry.

5. Value Chain



6. SWOT Analysis

- Strengths

- Land resource
- Conditions for beekeeping
- Labor
- Entrepreneurship

- Opportunities

- Local demand
- International market for bitter honey
- Bee tourism

- Weaknesses

- Beekeepers not united
- Capital
- Demand power
- Equipment

- Threats

- Diseases
- Pesticides

7. Improvement of Value Chain

- Encourage beekeepers to unite as an association or corporative society
 - Requesting government support
 - Working capital via membership or business share
 - Invest into purchase equipment to enhance quality
 - Value addition to raw honey
- Connecting with local and international B2B networks
- Threat of diseases to be controlled by introducing quarantine
- Promotion of organic and ecofriendly agriculture
- Enhance the land-use for beekeeping

8. Investment Opportunities

- Home gardens 13 km²
- Colonies per 1 km²; 300 to 500
- Potential colonies; 150 x 13 = 1950

- Existing colonies 115
- Potential colonies 115 → 1950
- Honey production 140 L → 2300 L

- Potential for Deltota to become a Bee Village

Land-use	Area (km ²)	Percentage %
Forests	23	47
Home gardens	13	26
Tea	7	14
Paddy	2	4
Other	4	9
Total	49	100

9. Conclusion

- Improvement of the value chain will increase beekeeper's profits
- Research to be continued among other beekeepers
- Development of a project proposal to be submitted to the government or suitable development partner to convert Deltota as a model beekeeping village and link with bee tourism



THANK YOU