



# Nepalese Honey: Potential and Challenges in Export

A Report



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## Abbreviations

APEDA	Agricultural and Processed Food Products Export Development Authority
APP	Agriculture Perspective Plan
ARR	Average Rate of Return
CAC	Codex Alimentarius Commission
DFTQC	Department of Food Technology and Quality Control
EIA	Export Inspection Agency
EIC	Export Inspection Council
EU	European Union
EC	European Council
FAO	Food and Agriculture Organization
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
FTEE	Full Time Equivalent Employment
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Point
ICIMOD	International Centre for Integrated Mountain Development
ISO	International Standard Organization
MAP	Medicinal and Aromatic Plant
MEQ	Milliequivalent
MFN	Most Favoured Nation
MoCS	Ministry of Commerce and Supplies
MRL	Maximum Residue Limit
MT	Metric Tonne
NBSM	Nepal Bureau of Standards and Metrology
n.e.s	Not Elsewhere Specified
NTIS	National Trade Integration Strategy
ODOP	One District One Product
PFA	Prevention of Food Adulteration Rules
RMP	Residue Monitoring Plan
SPS	Sanitary and Phytosanitary
TEPC	Trade and Export Promotion Centre
TBT	Technical Barriers to Trade
USA	United States of America
USD	United States Dollar
USDA	United States Department of Agriculture
VAT	Value Added Tax
WTO	World Trade Organization

# Chapter -I

## Introduction

### Background

Apiculture is the science and practice of beekeeping, including honey hunting. Apiculture is widely practiced all over the world, especially in those areas where people are poor and living at the subsistence level.

*Codex Alimentarius* defines honey as “the natural sweet substance, produced by honeybees from the nectar of plants or from secretion of living parts of plants, or excretion of plant-sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in honeycombs to ripen and mature” (FAO). Similarly, the EU defines honey as “the natural sweet substance, produced by *Apis mellifera* bees from the nectar of plants or from secretions of living parts of plants, or excretions of plant-sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in honeycombs to ripen and mature” (FAO). What is of note is that this definition states that honey is produced *only* by *Apis mellifera* bees.

Beekeeping or honey harvesting is an extremely old practice in Nepal. For poor and vulnerable communities, even without access to land, small scale beekeeping has made a significant contribution to their livelihood security. Beekeeping is a minimal investment sector which does not require land holding and offers diverse products which can be used in the households or sold in the market. Apart from providing regular income to the family in terms of honey production, it offers a complementary source of income for farmers from crop pollination.

The benefit of beekeeping is manifold. The NTIS recently estimated that more than 53,000 farmers are involved in honey production (**NTIS 2010**). Its report also noted that because most beekeeping farmers are those who are constrained by land resources, honey production had led to an increase in income of the vulnerable sections of the society. Benefits however, not only accrue to the beekeeper but also to other farmers. Studies suggest that a farmer earns 3.5 times more from pollination than the beekeeper earns from honey<sup>1</sup>. Beekeeping is also considered to be a gender-inclusive activity. In many countries, beekeeping is the domain of women as bee hives are often kept close to the homestead. While participation in cultivation is

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<sup>1</sup> The FAO estimates that about one third of all plants or plant products consumed by humans are results of bee pollination. Bee pollination in Western Europe contributes 30-50 times the value of honey and wax harvest in the region. In Africa, the contribution grows to 100 times. Bees improve both the quantity and quality of harvest. Research in bilberry plant show that fertilization and berry production in plants grown close to an apiary occurred in 89.1 per cent of flowers compared to 47.5 per cent in farms without an apiary around. Similarly, the average weight of the berry was 0.578 grams for berries with access to bees compared to 0.348 grams without bees (FAO).

active, their involvement in commercialization and benefit sharing, however, is not significant (Hilmi, Bradbear, & Mejia, 2011).

Additionally, besides honey, other bee products can also be sold at very good prices by the beekeepers. Products like pollen, beeswax, bee bread, and royal jelly sell at prices higher than honey. Similarly, other items like propolis of bee can be easily marketed by the beekeepers to generate an additional source of income. Therefore, beekeeping can be an extremely fruitful venture for both beekeepers as well as farmers of the region.

## Beekeeping in Nepal

Nepal is home to five species of honeybees- four of them native viz. *Apis laboriosa*, *Apis dorsata*, *Apis florea* and *Apis cerana*. In 1990, an Italian species, *Apis mellifera ligustica*, was introduced in the country. It has been a mixed success over the years. Of the five species, *Apis laboriosa*, *Apis dorsata* and *Apis florea* are considered to be wild species. *Apis laboriosa* is also popularly known as Himalayan Cliff Bee, and is found in the cliffs of harsh Himalayan region of Nepal. Similarly, *Apis dorsata*, the tropical giant bee, is found in southern lowlands with altitudes ranging between 190-1200 metres. *Apis florea*, the dwarf honeybee, is mostly found in the lowlands, up to 1000 m altitude, in Nepal.

*Apis cerana* and *Apis mellifera ligustica* are the cultivated breeds of honeybee in Nepal. The *Apis cerana* species is found in the high-hills, mid-hills as well as in the Tarai (although their sub-species are different in different climes). *Apis mellifera* has been found to be mostly successful in the Tarai region. Estimates suggest that there are around 90,000 *Apis cerana* hives and 20,000 *Apis mellifera* hives in Nepal (Joshi 2008). Another report by the Beekeeping Section earlier estimated that, in total, there are 127,501 honeybee colonies in Nepal, including 101,684 traditional and 25,300 improved hives (**Beekeeping Section 2004**).

**Table 1: Nepal's domestic honey production**

Year	Production (MT)
1996/97	60
2000/01	155
2005/06	650
2009/10	1,100
2011/12	1,500
2012/13	1,625

*Statistical information on Nepalese Agriculture 2012/13*

In FY 2012/13, Nepal produced 1,625 MT of honey. Over the years, the production of honey has steadily increased. Honey collected from these species is widely used in rural areas for treatment of various illnesses including stomach pain, joint pain, eye illness etc. Traditional

medicine uses honey as an ointment for burns, bruises and cuts and as a medicinal supplement for cold, coughs, sore throat, headache, diarrhoea etc.

Production data suggests that Nepal's honey production is gradually increasing over the years, but that success has not translated itself to finding its niche in the international market. Statistics reveal that Nepal is yet to regularize its honey export to the European Union (EU) and India, despite its rising demand there. Poor quality and inadequate production have forced Nepal to rely mostly on Bangladesh for export.

### **Objectives of the Study**

The primary objective of this study is to identify the bottlenecks of the current policy framework governing Nepal's beekeeping, honey production and its trade. The study aims to analyse the current production and market condition of honey in order to highlight the policy gaps and identify problems relating to its production and trade.

More broadly, the study focuses on identifying the opportunities and challenges in the apiary sector. This is expected to help in making recommendations for the preparation of action plans to address the bottlenecks.

### **Methodology**

Primary as well as secondary information has been used in formulating this report. Desk research has involved analysis of various legal and policy structures introduced by the governments of the past and present regarding the promotion of beekeeping and honey in Nepal; examination of various sanitary and phyto-sanitary (SPS) measures and other technical barriers to trade (TBT) put in place globally; and investigation into the trade performance of Nepalese honey based on published trade statistics. Also, a case study of India, a comparable and successful honey exporter, is taken up to analyse policy formulation for exports to the international market.

The study team conducted a field study and extensive discussions with beekeepers from various parts of the country so as to obtain first-hand information about beekeeping and export of honey. Focused group discussions among beekeepers, including a public-private discussion involving relevant stakeholders, were also held.

The recommendations and conclusion were drawn on the basis of analysis of various quantitative and qualitative data thus collected.

### **Limitations**

Because of the limitation of time and resources, the study had to be confined to a limited number of beekeepers and honey exporters. Therefore, the problems of beekeepers from specific regions have been missing in this study. Experience of real farmers regarding the use of chemical fertilisers and their understanding and relationships with beekeepers have not been included in the study. Regarding the secondary data, their validity has not been tested and the study assumes that these sources are authentic and accurate.

## CHAPTER-II

### Review of Policies and Programmes

This chapter deals with various plans and policies being implemented to improve Nepalese honey export performance. It has to be mentioned here that Nepal does not have legal provisions and regulations explicitly related to production and trade of honey as such.

### Agriculture Perspective Plan (APP)

The objectives of the APP are *inter alia* to accelerate the growth rate in agriculture through increased factor productivity; to alleviate poverty and achieve significant improvement in the standards of living through accelerated growth and expanded employment opportunities; and to transform the existing subsistence-based agricultural system into a commercial activity through diversification and widespread realization of comparative advantage.

To meet these objectives, the APP has concentrated on a few priority programmes. The selection of these programmes was based on their complementarities with other areas of agriculture and their potential for broad participatory growth across regions and income classes. Their impact on women from the backward community was another determining factor. Among various priority sectors identified by the APP, beekeeping was included under Priority Output – Livestock.

The APP has duly recognised the importance of beekeeping in reducing poverty and enabling women to participate in the productive labour force. The Plan recognises the importance of coordination between the private and public sectors and charts out a planned growth of income from livestock over a period of 20 years.

### Twelfth Plan (2067/68-2069/70)

The 12<sup>th</sup> Plan was a three-year plan and did not design any intervention specifically for the beekeeping sector. However, its provisions on agriculture and horticulture can be expected to be applicable to honey production sector. The exclusive spelling out of honey production increase from 1,100 MT to 1,300 MT by the end of the plan period, as one of the targets of the plan, proves it.

In order to facilitate the increase in production, the plan envisages ease of access to agro-credit as an important step to assist bee producers in Nepal. For the purpose, the National Cooperative Bank and other financial institutions were to be strengthened and directed to provide credit to farmers at a subsidized rate.

Another inference can be drawn from the fact that the plan also spells out the need for strengthening institutions relating to trade. They were to be provided with quality infrastructure to promote trade. The plan document also talks of the benefits of utilization of cooperatives to promote farming, financing, production, storage and marketing of agro-based products. It emphasizes improvements of the value chains through value addition.



The Plan prescribes the consolidation of the National Food Laboratory for quality control in production, certification and marketing of honey. It advocates control in the use of pesticides and veterinary medicines to promote organic farming. The Plan also has training provisions for farmers with a view to promote organic farming.

Finally, the plan includes arrangements for access to improved breeds of bees along with provisions of product insurance and better health and hive facilities for the bees (GON 2010).

### Thirteenth Plan

The latest Three Year Plan (2070/71- 2072/73) mainly emphasizes commercialisation of agriculture (which includes beekeeping), adoption of new technology to improve the quality and productivity of produce. Similar emphasis is laid on quality control, testing and certification facilities and enhancement of capacity of bee farmers, entrepreneurs and experts.

For that it envisions improved infrastructure provisions like electricity, transport and communication, collection, storage and market facilities. This is done with a view to encourage commercialization and increased market access for farmers and help them improve the productivity of farm products.

Similarly, it encourages the use of improved-breeds of bees. Like in the earlier Three Year Plan, it makes provisions for agriculture insurance<sup>2</sup> and credit. This plan also incentivizes organic farming by encouraging less/judicial use of pesticides, medicines and chemical fertilizers. The plan also recognises the need for research to determine the quality of Nepalese products in order to improve the quality and certification of Nepalese honey (GON 2013).

### Industrial Policy

The industrial policy does not talk about beekeeping and honey per se, but its provisions are applicable to the sector as well. The relevant provisions can be categorised as:

**Provision of Services:** Access to finance is one of the key areas of intervention of the policy. It reaches out to the industries through service extensions of existing Micro Enterprises, Cottage and Small Industries Development Fund, Rural Self-Employment Fund, Equity Fund, Credit Guarantee Fund etc. Similarly, the policy also targets entrepreneurship development via various programmes. The policy also includes strengthening of Nepalese laboratories and aligning Nepalese standards with their international counterparts.

**Financial Incentives:** Industrial promotion through incentives, via tax deductions and concessions, is another area of intervention of the policy. The policy provisions various forms of income tax deductions including:

- a) five per cent concession on income tax for special industries (including honey) and

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<sup>2</sup> The latest directive by the Insurance Board on "Crop and Livestock Insurance" 2012, however, does not include insurance products on beekeeping.

b) exempt expenditure on market promotion, survey and advertisement from taxable amount (income tax) provided such expenses do not exceed ten per cent of total sales income of the industry.

Similarly, honey producers are also permitted to add one-third more to their depreciation amount, provided that they calculated it according to the provisions of the current Income Tax Act. The policy exempts the honey manufacturing establishment from income tax altogether if it can be classified as a micro enterprise<sup>3</sup>.

Beyond income tax, the policy also includes provisions for zero excise duty and Value Added Tax (VAT) for goods produced for export.

### **Nepal Trade Integration Strategy (NTIS)**

Another policy paper, Nepal Trade Integration Strategy (NTIS), classifies honey as a low export performance product with a middling potential in terms of world market conditions, domestic supply conditions, overall export potential and overall socio-economic impact. This is a recognition that the volume of honey exports has remained very low, in spite of exports taking place through the informal channel. The strategy reflects the erratic Nepalese honey export statistics regarding the overseas market and that the product remains unable to record permanent export destinations. It also identifies potential new markets like the EU, USA, Japan, Saudi Arabia, Canada and Australia where honey consumption is growing fast.

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<sup>3</sup> Micro enterprise, in the policy, is defined to be an enterprise where: the investment does not exceed NRS. 200,000 in fixed capital except land or house; the entrepreneur himself/herself is engaged in its management; a maximum of nine employees are hired; annual transaction is less than two million rupees; and if machinery is used, the electric motor or other oil engine capacity has to be less than 10 kilowatts (Nepal, Industrial Policy, 2011).

**Table 2: SWOT Analysis of Honey in Nepal**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Abundance of natural flora and fauna</li> <li>• Availability of appropriate climatic conditions</li> <li>• Unique flavour due to climatic conditions and flora</li> <li>• Very positive socio-economic impact, especially regarding income to poor landless farmers</li> <li>• A lot of groundwork already done by different organizations in the past</li> <li>• Involvement of a large number of entrepreneurs in the processing and marketing of honey</li> <li>• High quality production</li> <li>• Good relationships between bee-keepers and stakeholders</li> <li>• Enthusiastic or devoted youth</li> <li>• Involvement of women in beekeeping</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of financial support to promote beekeeping. Dearth of processing equipment.</li> <li>• Virtually saturated domestic market.</li> <li>• Entrepreneurs' inability to find new markets other than India</li> <li>• Non-inclusion of Nepal in the list of countries that are authorized to export honey to EU</li> <li>• Absence of proper equipment and laboratory facilities to test for residue presence (MRLs) – a bottleneck for EU market and others</li> <li>• Weak road/transportation access to pasture areas</li> <li>• Lack of pasture management</li> <li>• Small quantities of production/ Lack of awareness among farmers as to how beekeeping helps in overall agriculture.</li> <li>• Poor marketing strategy</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Sale through tourism</li> <li>• Organic production and fair trade practices</li> <li>• Developing relations with international buyers</li> <li>• Growing consumption in and outside the country</li> <li>• Growing number of commercial beekeepers</li> <li>• Nepal's honey can have better medicinal value</li> </ul>	<ul style="list-style-type: none"> <li>• Competition from both India and China in major markets</li> <li>• Strikes and volatile political situation</li> <li>• Use of pesticide in bee-pasture areas</li> </ul>

(MOCS 2010)

## ACTIONS

The document has identified various action plans for promotion of honey in the international market which include:

- Support provisions to growers in pesticide management and establishment of effective quality supervision and control systems.
- Submission of a pesticide residue control plan to the EU and other honey importing countries.
- Strengthening laboratory capacity with regard to MRL tests.

- Setting up internationally accredited laboratories that can certify products regarding conformity with import market standards.
- Acquiring organic certification.
- Reduction of import duties and VAT on packing materials and abolishing other duties and charges.

Source: (MOCS 2010)

## **Nepal Trade Policy 2009**

Nepal Trade Policy-2009 was designed to make trade an important instrument for poverty reduction and improvement of socio-economic conditions of Nepalese citizens. For that, the policy aims to create a trade conducive environment to make Nepalese products competitive at the international level. It wants that trade to foster income and employment opportunities at home. The policy identifies various products for trade promotion and prescribes strategies as well as programmes to achieve that. Those measures include developing policy and institutional networks for the protection of intellectual property rights and promotion of export of services. Under Working Policy 4.4.2 assistance has been pledged for the protection of intellectual property rights of major exportable goods in international markets. It also says that initiatives will be taken to establish rights relating to geographical indication of exportable goods, including honey. Similarly, under Sub-Title 4.5, i.e. providing additional incentives to export-oriented industries, the working policy mentions establishment of a product development fund with the participation of the private sector and cooperatives in order to provide support for transportation and storage of export products, including honey. Honey has also been classified as a product qualifying for “Thrust Area Development”<sup>4</sup>. Consequently, in order to promote the trade of honey, the policy promises that:

- Quality standards will be ensured by developing laboratories of international recognition to maintain quality consistency of honey,
- Effective inspection and monitoring of bee farming and honey production will be carried out,
- Nepalese honey production will be diversified by encouraging production of honey based particularly on mustard and rapeseed flowers,
- Packaging system will be improved and imports of machinery and equipment required for processing exportable honey will be exempted from tax and customs duty,
- Honey producers will be assisted through support of capital and technology and appropriate infrastructure to promote production of exportable organic honey,
- Promotional measures will be pursued in targeted honey importing nations.

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<sup>4</sup> Agricultural products with high export potential have been emphasized by Thrust Area Development. This package targets value addition by utilizing local resources and transmitting the export benefits to the farmers. It aims to implement programmes for the commercialization of products and make efforts to widen their market access.

## **Agribusiness Promotion Policy, 2063**

To meet the need for commercialization of farming in Nepal, the Agribusiness Promotion Policy was formulated to help make the agriculture sector more competitive regionally and internationally. The policy envisages development of *agro-product export areas* and *pesticide free organic zones* both of which are relevant for promotion of organic honey production in Nepal. Similarly, the policy mentions support to agro-business through infrastructure development- construction of road, electrification, irrigation; technical and technological support; and financial assistance- to agro-businesses including honey production and bee farming. It also talks about support in the development of value chains via intervention in collection procedures, mechanization and scientific approach in processing, standardization of storage and transportation facility and support through the market pricing mechanism. The policy prescribes better training facilities for farmers, provision to put up the agro-business itself as collateral to acquire loans and indicates the possibility of custom duty waiver, of up to 75 per cent, on machinery imported for agro-business purposes. Additionally, it promotes organic farming, strengthening of the quality assurance certification mechanism and establishment and reinforcement of an Accredited Independent Analytical Laboratory for quality control and certification of agro-business products, including honey.

## **Agricultural Development Strategy (Draft)**

The Agricultural Development Strategy (draft) is a long term strategy developed by the Government of Nepal for the promotion of agriculture. It aims to make Nepal an agriculturally surplus country making it a net exporter of farm products by the end of the strategy period. It envisages various actions to improve productivity and enhance commercialization and competitiveness of the Nepalese agricultural sector. The document includes various short term, medium term and long term action plans to do so. While there is no specific plan of action for the development of honey sector in the strategy paper, it does identify honey as a niche commodity which has a large export potential and recognises the importance of promoting value chains for the promotion of this sector.

While details on the issues will be further elaborated in Chapter V, it is clear that there are deficiencies in the Nepalese policy environment with regards to the beekeeping sector, viz.

1. No separate beekeeping policy;
2. No public-private body dedicated to development of the beekeeping sector;

Inadequate attention given to commercialization of the sector even while priority has been given to the poverty reduction aspect of beekeeping.

## Chapter -III

### International Trade of Honey

In this section, we analyze the global trends and patterns of honey trade in recent years as well the performance of Nepal in terms of honey exports. Honey is grouped with “Dairy products, eggs, honey, and edible animal products not elsewhere specified (nes)” in the Harmonized Commodity Description and Coding System (HS Code). Honey is classified under Chapter 04 at 2 digit level, 0409 at 4 digit level and under 040900 at 6 digit level of the HS Code.

Data from Trade Map suggest that global demand for natural honey (indicated by change in imports) has risen steadily over the years. In 2012, countries all over the world imported a total of \$1.7 billion worth of honey of which 24.6 and 15.9 per cent of the product was imported by United States of America and Germany respectively. At the global level, between 2009 and 2013, honey imports across the world grew by a healthy annual rate of 11 per cent. The United States of America, Germany and United Kingdom, the three most important importers of honey, all showed steady growth in their imports. Meanwhile, other markets, like Japan, Saudi Arabia, Netherlands and Poland, also showed significant growth of imports between 2008 and 2012.

**Table 3: World honey imports statistics: ITC (Trade Map)**

Importers	Value imported in 2013 (USD thousand)	Annual growth in value 2009-2013 (%)	Share in world imports (%)
World	2,027,031	11	100
United States of America	497,886	21	24.6
Germany	322,004	4	15.9
United Kingdom	126,422	3	6.2
Japan	116,268	6	5.7
France	113,140	6	5.6
Italy	75,189	8	3.7
Belgium	68,036	9	3.4
Saudi Arabia	66,422	21	3.3
Netherlands	53,750	12	2.7

Spain	53,047	10	2.6
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Source: *Trade Map (www.trademap.org)*

The EU, USA and Japan have the potential to be the three most important markets for Nepalese honey. Saudi Arabia too has emerged as a fast growing market for honey and, therefore, can be looked at as a possible future market.

Meanwhile, China is the largest exporter of honey in the world closely followed by Argentina- both, when combined, contributing to almost a quarter of the world's honey exports. Germany, New Zealand and Mexico are other major exporters of honey. Honey exports from India and New Zealand have grown more than twenty per cent in the last five years and are among the ten major exporters, Exports from China and Vietnam have also grown rapidly in the same period. It has to be noted that two of Nepal's closest neighbours, India and China are also the two most vibrant and fastest growing exporters of honey in the world market.

**Table 4: Major exporters of honey in the world**

Rank	Exporters	Trade Indicators		
		Value exported in 2013 (USD thousand)	Annual growth in value (2009-2013) (%)	Share in world exports (%)
	World	2,056,753	12	100
1	China	246,550	16	12.0
2	Argentina	212,637	8	10.3
3	New Zealand	139,316	23	6.8
4	Germany	134,316	6	6.5
5	Mexico	112,352	9	5.5
6	Spain	91,483	8	4.4
7	Viet Nam	90,553	20	4.4
8	Hungary	90,467	9	4.4
9	India	75,718	31	3.7
10	Belgium	72,886	15	3.5
136	Nepal	1	-58	0.0

Source: *Trade Map (www.trademap.org)*

In FY 2012, Nepal exported a mere eight metric tonnes of honey worth USD 18,830. Recent updates suggest that the volume might have fallen to as low as 837 kg in 2013, exporting only to USA and Korea. Trade Map shows that the country ranked 136 out of 138 honey exporting countries in 2013. Therefore, Nepal's performance has not been satisfactory and unable to capitalize on the growing demand for honey, especially from European countries. Rising demand for honey in the global market has not translated into rising exports of the product from Nepal.<sup>5</sup> In fact, Nepal is a net importer of honey. TEPC data shows that for every kg of honey exported, Nepal imported 290 kg. While it is disheartening to see a strengthening import and weakening export of an item selected as "export priority" by the Government, the trend also implies that there is rising domestic demand for the product.

Nepal has not been able to expand its market to other nations except Bangladesh, which remains the sole trusted importing partner of Nepal's honey over the years.<sup>6</sup> As is apparent from Table 6, except Bangladesh, Nepal has been unable to identify regular markets for its honey. There is negligible and sporadic export to the US and a notable absence of the product in European markets. Therefore, there is a clear need for a major shift in emphasis for expanding its export. First, as shall be seen, there is a need to increase the production of good quality honey. And, second, there is a need to identify regular importing partners for exporting it.

**Table 5: Nepal's exports to the world (in USD)**

S.N	2011			2012			2013		
	Country	Quantity (kg)	Value	Country	Quantity (kg)	Value	Country	Quantity (kg)	Value
1	Bangladesh	32,000	81,239	Bangladesh	8,000	18,770	USA	800	861
2	Japan	480	2,775	Korea R	1	5,286	Korea	37	165
3	Saudi Arabia	900	1,790						
4	Qatar	45	112						
5	China	12	76						
6	UAE	5	50						
	<b>Total</b>	<b>33,442</b>	<b>86,042</b>	<b>Total</b>	<b>8,001</b>	<b>18,830</b>	<b>Total</b>	<b>837</b>	<b>1,026</b>

Source: TEPC ([www.tepc.gov.np](http://www.tepc.gov.np))

<sup>5</sup> It has to be kept in mind that most honey exporters use informal channels while exporting honey, and therefore, reported figures are likely to be considerably underestimated. This however, doesn't negate the fact that export has been deteriorating.

<sup>6</sup> Export to Bangladesh, however, stopped in 2013.



## Chapter-IV

### Tariff and Non-Tariff Barriers Associated with Honey

The poor performance of the Nepalese honey industry cannot be attributed to tariff related trade barriers. Nepal, being a least developed country, enjoys preferential treatment as a zero tariff nation in most of the developed nations in the world. This puts the country in an advantageous position when compared to its competitors. As can be seen in **Table 6**, Nepal enjoys considerable tariff advantages against its possible competitors, China and India, in some of the largest honey importing countries. Except for the United States, where the tariff advantages are very slender, 0.66 per cent, Nepal enjoys healthy tariff advantages across Europe, where most countries apply 17.3 per cent ad valorem equivalent tariff to other major exporters, against 0 percent for Nepal. In Japan, the MFN tariff is 25.5 per cent against 0 per cent for Nepal. In India, MFN tariffs are as high as 60 per cent, compared to 0 per cent for Nepal's honey. The NTIS too has recognised the tariff advantage of Nepalese honey in Japan and EU (MoCS 2010). Therefore, Nepal can enjoy a competitive advantage in price in these countries if it is able to export to them.

**Table 6: Tariffs faced by honey exports in major importing countries (in 2013)**

Importers	Tariff (estimated) faced by Nepal (%)	China*(%)	India*(%)	Argentina*(%)	MFN Tariff (%)
Belgium	0	17.3	17.3	17.3	17.3
France	0	17.3	17.3	17.3	17.3
Germany	0	17.3	17.3	17.3	17.3
Italy	0	17.3	17.3	17.3	17.3
Japan	0	25.5	25.5	25.5	25.5
Netherlands	0	17.3	17.3	17.3	17.3
Poland	0	17.3	17.3	17.3	17.3
Saudi Arabia	5	5	5	5	5
Switzerland	0	4.52	4.52	4.52	4.52
United Kingdom	0	17.3	17.3	17.3	17.3
United States of America	0	0.66	0.66	0.66	0.66
India	0	60		60	60
Spain	0	17.3	17.3	17.3	17.3

Source: *Trade Map 2013: (www.trademap.org)*

\* based on total ad valorem equivalent tariff

## Non-tariff Measures

UNCTAD defines Non-Tariff Measures (NTMs) as “policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both. (The measures) include all policy-related trade costs incurred from production to final consumer, with the exclusion of tariffs... In practice, NTMs are measures that have the potential to substantially distort international trade, whether their trade effects are protectionist or not” (UNCTAD, 2013). Unlike tariff measures which are kept in place as an obvious trade protection mechanism, the intent of non-tariff measures are not easily discernible. While some NTMs including SPS measures have been kept in place for genuine protection of the health of the citizens of the countries, many are employed as instruments of commercial policy.

According to UNCTAD, countries apply Technical Barriers to Trades (TBTs) on about 30 per cent of products being traded and Sanitary and Phytosanitary (SPS) measures on 15 per cent of traded items. Inspection related NTMs are applicable for a further 20 per cent of products. This has large distortionary effect on international trade. Such measures push up the cost of trade for many countries, especially for less developed countries. To illustrate, the incidence of NTMs in high and middle income countries is estimated to represent on average of almost 20 per cent of the value of imported items. Similarly, “while the agricultural exports of low income countries face an average tariff of about five per cent, largely because of various preferential schemes, once the effect of NTMs is taken into account the overall level of restrictiveness is much higher at about 27 per cent” (UNCTAD, 2013). With regards to honey, various SPS and TBT requirements are applicable to various countries, mostly in Europe, leading to prohibitive effect on Nepal’s honey trade with the said countries.

## Honey and NTMs

Countries importing honey generally follow the standards set by the Codex Alimentarius Commission (CAC). The CAC has laid down 15 parameters relating to standards for honey. The Nepalese Bureau of Standards and Metrology too has defined honey based on certain parameters. Unfortunately, the definition of honey as per Nepalese standards does not match the definition as per the CAC (see Table 8). **This is a glaring policy deficiency in Nepal’s honey sector.** It is imperative that, for Nepal to be successful in honey export, the standards acceptable in Nepal match the standards defined by the CAC.

Besides, as has been mentioned in the definition above, the **EU** recognises honey only if it is manufactured by the *Apis mellifera* bee. Since more than 40 per cent of Nepal’s honey comes from bees other than *Apis mellifera*, this is a discernible setback for honey producers in Nepal. The EU also has various other regulations that relate to the honey industry. For instance, the EU regulates honey under Council Directive 2001/110/EC. A core requirement of the regulation is setting up of Residue Monitoring Plan (RMP) which hasn’t been formalized in Nepal yet (See Box 1). Another important NTM imposed by EU for honey is the labelling requirement as stipulated by the Directive 74/409/EEC, which requires that any honey’s container must conspicuously, legibly and indelibly mention the following:

(a) the term “honey” as is defined by the EU. “Comb honey”, “chunk honey”, “baker’s honey” or “industrial honey” must be described as such;

(b) the net weight expressed in grams or kilograms (sic); and

(c) the name or trade name and the address of registered office of the producer or packer, or of a seller established within the Community.

Because honey is an animal product, export of honey to the EU also requires a health certificate of the bees by a registered veterinarian or a competent veterinary authority and approved by official veterinarian before being exported to the EU. Upon arrival, the said health certificate must be verified by the EU veterinary officials at the designated Border of Inspection Post (BIP).

However, as was mentioned earlier, the most important task to be fulfilled by producers and exporters is acquiring the EU’s approval of residue monitoring plan. Fulfilling these criteria will include Nepal in the list of approved “third countries” and make it eligible for honey exports. In summary, RMP is a necessary condition for the export of honey to Europe.

#### **Box 1: Residue Monitoring Plan**

“Residue Monitoring Plan is aimed at establishing a system for monitoring residues of drugs, pesticides, and heavy metals in honey when the raw honey is received; at the honey processing unit; and in processed/packaged honey. It also ensures a system for corrective action if residue levels higher than those established through this RMP are detected and for corrective action in the event of the issuance of an Internal Alert Information” (ICIMOD).

The Council Directive of 2001/700/EC has mandated monitoring requirement regarding certain substances and residues in live animals and animal products. As per the directive, the targeted residues are:

- Banned veterinary substances
- Authorized veterinary substances
- Environmental pollutants

There is a maximum residue limit set within each country for each of the aforementioned substances. RMP is approved by the European Union Standing Committee.

**The United States** has no specific honey legislation, but a country-grading scheme is in effect and the general provisions of the Food and Drug Act apply to honey as well. The following aspects are taken into account when honey is imported into the USA:

- The honey must be pure, adulterated honey is not acceptable
- A moisture content of up to 18.6 per cent is allowed, but many companies prefer an even lower percentage
- The honey must be clean, i.e., free from filth (flies, other insects, feathers, etc.)
- The honey must be uniform in quality
- The drums (normally of 300 kg) must be completely clean.

Additionally, the US rules mandate the C13 test to see if an imported product labelled as pure honey is not mixed with sugars. The United States Department of Agriculture (USDA) has issued voluntary grading schemes that are widely used. For extracted honey, the following four grades are prescribed:

- US Grade A or US Fancy
- US Grade B or US Choice
- US Grade C or US Standard
- US Grade D or US Substandard

The grades take into account flavour, colour, clarity, moisture content, and defects (Sharma, Partap, & Gurung, 2012).

**Japan**, too, does not have large restrictions on the import of honey. In fact, the country has no legislation specific to honey as such. It defines honey as “a substance whose cane sugar content should be below five per cent of its total weight, fructose content above 30 per cent of its total weight, and fructose content above 50 per cent of its all sugar content” (Tariff Classification Provisions). Items not meeting the criteria are also treated as honey if endorsed by authorities in the exporting nations and have property of natural honey. The exporters have to follow food safety rules as specified in the Food Sanitation Act<sup>7</sup> and labelling requirements as specified in the Weight and Measures Law.

### **Japan’s Labelling Requirements**

As per the Food Sanitation Law and Weights and Measures Law, the following should be included in the labelling for exporting honey to Japan; product name, contents, quality assurance period, additives used, storage methods, and raw materials used (Jetro, 2000).

The following table (Table-8) provides information on various standards regarding honey as prescribed by the importing nations including Nepal, CAC and the actual quality of honey presently being sold in Nepal. There are several criteria based on which the quality of honey is determined. The table shows that there is non-uniformity between the standard requirements of CAC and that of Nepal.

**India’s** regulatory authorities, Food Safety and Standards Authority of India (FSSAI), have developed strong quality standard measures to test the quality of honey. The specific quality related tests have been given in Table 8. In addition, the FSSAI requirements mandate that the sale of Honey Dew be made only in sealed containers bearing the AGMARK seal. Further, the maximum limits of heavy metals in various foods are prescribed in the FSSAI regulations which are:

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<sup>7</sup> The Food Sanitation Act prohibits use of antibiotics in food which includes honey. Therefore, use of antibiotics for treatment of honey should be controlled.

## Maximum limits of metals in honey

Lead	Not more than 2.5 ppm	Copper	Not more than 30 ppm
Arsenic	Not more than 1.1 ppm	Tin	Not more than 250 ppm
Zinc	Not more than 50 ppm	Cadmium	Not more than 1.5 ppm
Mercury	Not more than 1.0 ppm	Methyl Mercury	Not more than 0.25 ppm

Exporters can also get their honey graded according to the standards specified by the Department of Agriculture and Co-operatives under Ministry of Agriculture of India.<sup>8</sup> Notification by the Department issued in 2008 prescribes that any honey sold in India must satisfy the following criteria:

- a) Method of Packing: Honey must be packed in new clean glass containers, china-ware lacquered cans, acid resistant tin containers, cartons, pet jars of food grade quality or other containers of food grade quality,
- b) Method of marking and labelling: Grade designation mark must be included in the honey package along with name and address of packer, address of packing place, date of packing, best-before date, batch number, net weight, maximum retail price, and nutritional information (GoI 2008).

**Table 7: Quality Requirements for Exports Abroad and Quality of Nepal's Honey**

Parameters	PFA (India)	CAC	EU	Nepal	<i>Apis laboriosa</i> (Nepal) <sup>9</sup>	<i>Apis cerana</i> (Nepal)
<b>Moisture (% by mass)</b>	Not more than 25	Not more than 20 (honey)	20	23	20.16	18.78
		Not more than 23 (heather honey)	23			
<b>Ash (% by mass)</b>	Not more than 0.5	-		Not more than 0.5		
<b>Total reducing sugar (% by mass)</b>	Not less than 65	-	Not less than 60g/ 100g	Not less than 65	67.76	69.54
<b>For Carbia colossa and honeydew</b>	Not more than 60			Not more than 60		
<b>Sucrose (% by</b>	Not more	Not more than	5	Not	2.79	3.57

<sup>8</sup> Details on grading can be found [here](#).

<sup>9</sup> Based on laboratory test. The same is true for *Apis cerana* values denoted in the next column.

<b>mass)</b>	than 5.0	5 g/100 g (honey)		more than 5.0		
<b>For Carbia colossa and honeydew</b>	Not more than 10.0	Not more than 10 g/100 g (other types of honey)		Not more than 10.0		
		Not more than 15 g/100 g (lavender, borage)				
<b>F/G ratio (% by mass)</b>	Not less than 0.95	Not less than 60 g/100 g (honey)		Not less than 0.95	1.2	1.19
		Not more than 45 g/100 g (honeydew honey)				
<b>Acidity (% by mass) expressed as formic acid</b>	Not more than 0.2	Not more than 50 milliequivalents acid/ 1000g	Not more than 50 milliequivalents acid/ 1000g	Not more than 0.2	14.59 (meq/kg)	9.03 (meq/kg)
<b>Specific gravity at 27<sup>o</sup> C</b>	Not less than 1.35	-				
<b>Water insoluble solid (% by mass) (max)</b>	-	Not more than 0.1 g/100 g (honey)	Not more than 0.1 g/100 g (honey)	Not more than 0.5		
		Not more than 0.5 g/100 g (pressed honey)	Not more than 0.5 g/100 g (pressed honey)			
<b>Fiehe's Test</b>	Negative. If Fiehe's test is positive and HMF content is more than 80 mg/kg then F/G ratio should be 1.0 or more	-				
<b>Diastase activity</b>	-	Not less than 8 Schade units (honey after normal processing)	Not less than 8 Schade units (honey after normal processing)			
		Not less than 3	Not less than 3			

		Schade units (honey with low natural enzyme content)	Schade units (honey with low natural enzyme content)			
<b>Hydroxy methyl furfural</b>	Not more than 80 mg/kg	40 mg/ kg (honey after normal processing)	40 mg/kg	Not more than 40mg/kg	5.65 (mg/kg)	6.99 (mg/kg)
		80 mg/ kg (honey from countries with tropical ambient temp.)	80 mg/ kg (honey from countries with tropical ambient temp.)			
<b>Electrical conductivity</b>	-	Not more than 0.8 mS/ cm (honey)	Not more than 0.8 mS/cm (honey)		0.43	1.13
		Not less than 0.8 mS/cm (honeydew and chestnut honey)	Not more than 0.8 mS/cm (honeydew and chestnut honey)			

Source: Joshi, 2008) (Sharma, Partap, & Gurung, 2012

As can be seen, requirements related to moisture, water insoluble mass, diastase activity and electrical conductivity are missing from Nepalese honey related test measures. Another observation is that the make-up of Nepalese honey, at least regarding the specific bees species, meets most of the criteria specified by the CAC, EU and India. Besides discrepancy in determination of standards, certain tests have not been conducted on Nepalese honey to determine their standards regarding those criteria. Therefore, there is an immediate need to rectify the standards of Nepal's honey to make it compatible with international regulations and provide facilities to test the quality of honey based on all prescribed criteria.

## Further SPS regulations related to honey

### *Traceability*

Traceability has become a major requirement for honey export to Europe. Traceability is now also demanded by Fair Trade certification too. Traceability ensures quality assurance at all stages of production and makes it easier to locate the source of deterioration of quality in the value chain. A report financed by the EU Trace Project mentions that any traceability project carried out with regards to honey should have information regarding:

- The drum producers
- The bee-keepers
- Plastic squeezers and squeezer caps

- Glass jars and glass jar lids
- Honey processors
- Transporters and storage holders
- Wholesalers/retailers/supermarket

Producers/concerned stakeholders in each of the above processes must fulfil traceability requirements for producer ID, logistics ID, produced unit's ID and quality control measures kept in place. The honey processors must further produce the GMP certification, laboratory certification, and check the traceability requirements being fulfilled by other components of the value chain. As can be seen, the traceability requirement includes not only the collection and production of honey, but also production requirements for other incidental products that relate to honey like packaging materials, storage and transportation and distribution mechanisms. Therefore, traceability requires an extremely detailed quality maintenance process at all stages of the value chain including the production mechanism to ensure quality control at all such stages. Enforcement of traceability requirements in Nepal would then require coordination among members of the value chain at different stages and a strong enforcement mechanism to ensure requirements have been fulfilled at all stages (Donnelly et al. 2008). Another factor hindering compliance with these requirements is the fact that most honey producers in Nepal produce in negligible volumes.

### **GMP**

Good Manufacturing Practices in food ensure that products meet food safety, quality and legal requirements. The GMP system ensures that products are consistently produced and controlled according to quality standards appropriate to their intended use and as required by the product specification (WHO). GMP in honey is primarily concerned with processing and packaging of the products. While the specific requirements for the GMP might vary nationally, the general definition of GMP ambits the following procedures:

- Pre-established requirements on the design, construction and maintenance of buildings, facilities and equipment involved in honey production and processing;
- Requirements on the quality of available water;
- Requirements on cleaning and sanitation;
- Requirements on personnel's competency, health and hygiene;
- Control of use of chemicals and prohibition and maximum residue limits on certain chemicals;
- Methods used for pest control in the production as well as in the processing facility;
- Requirements on the quality of packaging materials;



- Requirements on the receipt and processing of honey;
- Documentation and record keeping.

Source: (Authority, 2006)

### **Organic Certification**

Organic certification, if possible, is an important mechanism for providing quality certification. Honey, if certified as organic, can also fetch higher prices in the market and, therefore, greater benefits to the beekeepers. However, the requirements for organic certification are stringent and difficult to obtain. In order for honey to be officially recognised as 'organic' by the EU, standards to be met include the following:

- Crops on which bees feed must not have been chemically treated;
- Bees should be able to survive on self-produced honey, and should therefore not be fed sugar to increase honey production;
- There should not be an airport or main road nearby (which would contaminate the air and vegetation with chemicals from carbon fuel);
- Diseases must not be treated with veterinary medicines, only with approved organic substances (control of minimum residue levels or 'MRLs')
- Bees must not be stupefied while the honey is harvested

Source: Council Regulation (EC) No 1804/1999

### **Fair trade**

Fair-trade standards aim at promoting sustainable development and poverty reduction through a fairer trade. The main objective is to make gains from trade more inclusive by increasing the benefits to small producers and workers while at the same time promoting environmental sustainability. There are different sets of standards and requirements for small producer organizations, hired labour organizations, contract production and trade practices. Honey, as per the Fair-trade International Product Classification system, falls within the domain of small producer organizations. There are four major fair-trade requirements for small producer organizations (including honey) viz.

1. General requirements that aim at defining "Fair-trade" to be understood by small producers;
2. The trade requirements on what producers can do to build fair trading practices;
3. The production requirements define what producers can do via production methods to better secure sustainable livelihoods;
4. Business and development requirements defining a unique Fair-trade approach to development via empowerment and sustainable livelihoods.

Fair-trade has a long list of additional requirements which can be found [here](#).<sup>10</sup> In summary, the Fair-trade specifications include requirements on certification, labelling and packaging, product description, traceability and contracts, production mechanism, pricing and sustaining trade.

Similarly, in order to ensure quality and safety standards, there has been a shift in the approach of food regulators all over the world- from final product testing to the process which controls these standards- through safety systems such as ISO 9000, ISO 22000, and the Hazard Analysis Critical Control Point (HACCP) system.

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<sup>10</sup> [http://www.fairtrade.net/fileadmin/user\\_upload/content/2009/standards/documents/2011-08-12\\_SPO\\_Honey\\_EB.pdf](http://www.fairtrade.net/fileadmin/user_upload/content/2009/standards/documents/2011-08-12_SPO_Honey_EB.pdf)

## Chapter – V

### Problems and Challenges in export of Honey from Nepal

With the objective of identifying various possible non-tariff barriers encountered by the Nepalese bee producers, SAWTEE organized a focused group discussion in Nepalgunj. A Public-Private Dialogue was also conducted involving stakeholders from government as well as private sector to discuss various trade related barriers facing honey. The discussions examined possible non-tariff regulatory barriers as well as hindrances at custom points with an aim to discover areas of intervention that would lead to increasing the export potential of Nepalese honey. The study team also conducted interviews with several individual honey exporters in Kathmandu.

The first and foremost constraint in this sector, as per stakeholders, was the lack of commercialization efforts in this sector in the country. Nepal's two neighbours are among the largest producers of honey in the world<sup>11</sup>. Due to their large volume of production as well as exports (**see Table 4**), the price competitiveness of Nepal remains weak in the international market.

However, Nepal's product is unique in the sense that honey produced from species like *Apis laboriosa* can only be found in Nepal. The NTIS has identified that Nepal's honey remains distinct in flavour due to the unique climatic conditions and flora prevalent in Nepal. Plants like *Chiuri*, buckwheat and *rudilo* form the major source of honey collection plants for the bees. Due to the climatic conditions, even honey produced from flowers like mustard, and sunflower is said to have unique taste compared to what other nations produce. Therefore, Nepal does have the potential to establish its niche in the honey market, thus making the price more elastic. But, to charge higher prices, it must satisfy the quality demands of the foreign market.

Currently, Nepal produces hardly enough to satisfy its own domestic demand. If Nepalese beekeepers want to increase their honey export, there is a need to expand their production, not just increase the quality to make it more marketable. While such problems trouble small farmers, there is a perceptible lack of priority given to large scale producers of honey. These exporters complain that support to the honey sector has largely gone to the small farmers who at most can afford 5-10 bee hives. This is hardly sufficient for production on an industrial scale. No incentives have been provided to the large-scale producers.

In addition, exporters also complain about the lack of grazing space, especially during migration of the bees. It is well known that the problem of deforestation in Nepal is responsible for loss of flowering plants, bee flora and natural vegetation. Lack of diversity in grazing often means that a highly diverse natural ecosystem has been transformed to monocultural agro-ecosystem. This scarcity of bee pasture is leading to the decline in the number of colonies creating a 'stress condition' for living bee colonies. This increases their vulnerability to pests and diseases. The

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<sup>11</sup> India produced 61,000 Metric Tonnes and China produced 451,600 Metric Tonnes of honey in 2012 (FAO production statistics).

beekeepers have to grapple with additional challenges in the form of forestry officials creating hassles when bees are taken out for grazing. On top of that they are taxed by the authorities. The discussants also reported complaints from farmers worried by “excessive” grazing of their fields by bees, unaware of the benefits of bee grazing in increasing the productivity of their own farm produce. In this sense, there is an urgent need for raising awareness among farmers and forestry officials on the benefits of grazing in increasing the production of various flowering plants. They must be provided with the knowledge that bees are not harmful to the crops or forests.

Similarly, according to them, the tendency of providing low quantities of bee hives to small farmers is actually detrimental to production. It creates an atmosphere of competition between the migrating and resident beekeepers during the grazing process. As a result, large scale migration is met with hostile reception by the local beekeepers. Exporters also mentioned instances of beehives of migrating beekeepers being destroyed by local beekeepers. Therefore, a shift in initiatives towards promoting large scale production, either through collective or individual efforts, is crucial in increasing the production of Nepalese honey.

Another problem related to production includes the issue of finance. Estimates by experts suggest that commercial farming of bees requires an initial investment of around NRs 400,000 for 40-50 hives. However, beekeeping has traditionally been a cottage or small industry in Nepal. Most of the farmers involved in this sector do not have that kind of money with them. Therefore, access to finance is essential to promote commercial beekeeping in Nepal. The discussants said that Nepal’s financial system has not been supportive of beekeepers. They mentioned that beehives or bees are not accepted as collateral by financial institutions. When they do get credit, beekeepers are charged higher rates of interest due to unpredictability in production and possible death of bees (FGD).

Beekeeping in small hives has further implications. Traceability requirements mandate that the various value chains involved in honey production be traceable at all later stages. However, since export of honey in small quantities is economically unfeasible, the exporters tend to collect honey from various producers, mix it and then export. This makes traceability extremely challenging. Therefore, as was mentioned earlier, large scale production, either by single firms or through cooperatives is essential for meeting the traceability requirements. The Nepalese exporters do not have contacts with importers in countries that do not require traceability. The Middle Eastern countries are examples. Many exporters claimed that a lack of a communication mechanism with local traders in international markets remained an important impediment to export to new markets.

The beekeepers participating in the discussion mentioned that India’s recent success in exporting bees was due to the success of their beekeepers’ ability to meet the regulatory and certification requirements prescribed by the importing countries. According to them, the absence of such framework is the primary reason behind Nepal’s dismal performance in exports of honey. Therefore, the most important constraint for exporting Nepalese honey in the international market is the lack of infrastructure relating to standards and quality in Nepal. While it has to be noted that honey produced in Nepal does not meet the standards prescribed by the

CAC or the European directive, the most pressing problem is the lack of a framework for control, maintenance, inspection and promotion of standards in honey in Nepal. The Nepal Bureau of Standards and Metrology has defined the quality of honey as still below the requirement of CAC or the European countries (Shrestha, 2007).

Other issues include the issues of high transportation costs, both internationally and nationally. The producers mentioned cases of local taxes being levied during transportation of honey which added to their cost of production. More importantly though, due to low levels of production, the exporters are forced to export their produce through air transport instead of maritime transport. This increases their transport costs significantly. As per an exporter, the cost of air transport can rise by as much as eight times, compared to maritime transport. More importantly, air transport is highly unreliable in nature where the transport of cargo depends on the volume of passengers and transport is only possible if there is sufficient space in the aircraft.<sup>12</sup> Therefore, high cost and reliability of transport remains an important challenge for exporters of honey.

Another important concern is the prevalence of banned substances in Nepal's honey. The participants in the discussion highlighted the rampant use of fertilizers and pesticides by farmers. This has led to the prevalence of pesticides and other remnants in Nepalese honey. Many international markets, especially the European, have zero tolerance on pesticides. There is no incentive for farmers not to use pesticides in their crops. Because of the absence of provisions in Nepalese legislation to limit substances in veterinary drugs and pesticides in food crops, the farmers are not legally bound to control their consumption. Therefore, there is an immediate need for a residue control provision in the national legislation as a first step towards maintaining the standards of Nepal's honey. The following are the immediate steps to be taken by Nepal to ensure export of honey:

Development of new standards, as per the CAC Standards or the European standards, is essential. The current definition of honey according to the standards set by the NBSM do not tally with the CAC standards or the European standards. Particularly, in moisture content, sugar content, water insoluble solid, diastase activity and electrical conductivity, the standards set by Nepal fall short of the standards set in Europe or by the CAC. Therefore, modification of the standards of honey is imperative for Nepal for it to be eligible for honey export. Another important requirement in this regard is the definition of honey set by the EU. As has been mentioned, since EU recognises honey only if it is produced by the *Apis mellifera* bees, only a fraction of Nepalese honey will be eligible for export to this particular market. Therefore, either the Nepalese government should be able to convince the European regulators to include honey produced by *Apis cerana* and other bees in their definition, or it should expand honey production from *Apis mellifera* bees.

There is an urgent need to design and submit a Residue Monitoring Plan to the EU. (Recent reports suggest that the Department of Food Technology and Quality Control has sent the Residue Monitoring Plan of Nepalese honey to the European Council (EC)

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<sup>12</sup> Interview with exporter

for its approval (Kathmandu Post 2013)). Approval of the same will permit the exports of Nepalese honey to Europe, provided that certification is obtained guaranteeing that Nepalese honey meets all SPS measures as required by the CAC.

#### **Who Approves a country's RMP?**

The RMP is approved by the European Union Standing Veterinary Committee.

Steps for acquiring the RMP:

If a country gets an RMP, the Plan then becomes a prerogative of all potential honey exporters of that country. This means, the quality and the MRLs in honey should not significantly differ among various honey producers in Nepal and any initiative to acquire an RMP should be a collective effort.

Any Plan must be endorsed by the government official who is supposed to act as a mediator between the EU and the exporters. Any initiative taken by the private sector, therefore, must involve the government.

Information required to be presented during the submission of RMP include:

- a The legal framework for the RMP;
- b The structure of the official services in charge of the controls;
- c The laboratories undertaking the official analysis and their qualifications;
- d The official sampling procedure;
- e The measures taken in case of violation of the requirements.

RMP must be renewed every year. It must present the results of laboratory testing of a range of samples (and compare the results with previous year's results, in case of renewal). The samples must be tested for residues divided into five sub-groups:

- B1 – Antibacterial substances
- B2c- Carbamates and pyrethroids
- B3a- Organochloride compounds
- B3b- Organophosphorus compounds
- B3c- Chemical elements.

If the EU can be convinced that the volume of trade from Nepal does not exceed 300 tons per annum and the production methods are mostly organic and do not use the chemicals specified, then the sampling procedure can be simplified to make it less costly. In such cases, the whole process does not take more than a few months. If exporters are large and the quantity supplied is greater, then the process can take up to several years. Cost also depends on the size of exports and, thus, the type of RMP. Zambia, which had an RMP requiring fewer samples, needs around \$2000-3000 per year for the RMP and this is not a huge sum of money.

RMP for each year must be submitted before 31<sup>st</sup> March of the fiscal year.

Source: (Howard, 2006)

Application of quality control mechanisms like GMP and Traceability requires a strong enforcement agency to not only ensure that the conditions and standards have been fulfilled but also to coordinate activities among various actors involved in different components in the value chain. Nepal does not have a dedicated beekeeping export authority. At present, the Trade and Export Promotion Centre (TEPC), under the Ministry of Commerce and Supplies, is the body dedicated to promoting export products. However, it works on all forms of export products and is mainly focused on marketing activities. An agency dedicated to enforcement of quality standards in agricultural products, or specifically to beekeeping, would provide a strong impetus for increasing the quality of Nepalese honey. To illustrate, the successful story of India's honey exports starts with the important role played by the Agricultural and Processed Food Products Export Development Authority (APEDA) and the Export Inspection Centre (EIC) in monitoring the beekeeping and honey production process. These agencies monitor all aspects of honey production and set up committees to allow India to achieve its potential for honey production and export. They have set up a mechanism for assurance of quality control standards through all stages of honey collection, processing, testing, packaging, marketing, and ensuring that quality standards are in conformity with EU monitoring standards. Financial incentives are also provided for the development of the honey export industry. APEDA also actively involves itself in training farmers and beekeepers about the importance and methodologies of quality assurance at all stages of production. Therefore, a strong agency to raise awareness among farmers on the importance and the methodology of acceptable beekeeping, honey extracting and manufacturing practices, apart from enforcing quality control regulations at all stages of the value addition, is essential for the promotion of Nepalese honey export.

A beekeeping policy is an essential part of beekeeping development in Nepal. Various problems related to production, including issues of migration and benefit sharing by farmers, can be resolved through a scientific policy. Such policy will also be a crucial step towards promotion of commercialization of the sector in Nepal. Similarly, regulations related to Good Manufacturing Practices to ensure the quality of honey produced at all stages of the value chain is also crucial for meeting the traceability requirements. A framework for a beekeeping policy and Good Beekeeping Practices has already been prepared by the private sector. The Government should revise and endorse these documents to make them official. Similarly, grading of honey is also required by many importing countries. Grading is important not only for meeting requirements abroad, it is also an easy mechanism of marketing good quality honey and achieving good prices for quality products. At present the Nepalese government does not have any mechanism related to grading of honey. Development of a grading mechanism is crucial to ensure good prices

Fair trade and organic honey strictures are even stronger than the requirements of RMP and traceability. Not only they require more careful approach during the process of production, they also necessitate further effort in farmers' participation (in the course of using pesticides/fertilizer in their fields), more equitable rewards to all parties involved in

the process of manufacture, and other geographical conditions related to organic honey production. In addition, due to the absence of accredited and verified certification agencies in Nepal and in order to convince the foreign buyers of the genuineness of the organic nature or compliance with fair trade practices, certification has to be done annually by agencies from abroad. This entails an extremely high cost, one which cannot be borne by individual producers. However, the premium prices that can be achieved for products that have acquired the certification make such certifications an extremely lucrative venture. Keeping that in mind, fair-trade/organic certification can be conducted by pooling the available resources. This can be done collectively via a cooperative or a joint organization or other collective cost and benefit sharing system, which can be beneficial to all members involved.

All aforementioned suggestions require production of quality honey, devoid of any foreign contaminants including chemicals, fertilizers, pesticides and the like. Compliance with all manufacturing and processing requirements, however, still does not guarantee quality honey if the nectar that the bee harvests is contaminated. Unless it can be guaranteed that the bees only take nectar from wild and forest resources of Nepal, it is imperative that farmers cultivate their crops devoid of such chemical additives. This, however, is a difficult proposition. It not only requires government initiatives to control use of chemical fertilizers and pesticides, like the “organic cultivation zone” in the Agro-Business Promotion policy, but also requires a strong incentive mechanism that lures farmers towards increasing their yield and earnings without having to use the chemicals. In other words, the benefits of not using chemical fertilizers should be higher than the benefits of using them. Therefore, the best benefit sharing practices among farmers and beekeepers should be analysed.

Another important aspect in this regard is the availability of agencies capable of certifying the quality of Nepalese honey. While at present there is a national laboratory for testing honey at Bee Development Section in Godavari, the human resources there is hardly equipped to proceed with the quality measurement tests required to make the certification. Therefore, an immediate need is to establish more food certification laboratories across Nepal to facilitate the certification process for beekeepers.

Marketing and distribution is another area needing special focus where elements like packaging, labelling, branding and marketing of honey are addressed. An initiative has been taken by the Federation of Beekeepers of Nepal to identify honey produced in Nepal as “Nepal Honey” which is definitely a positive step forward. Identification of suitable markets for exports and promoting Nepal’s honey must be an important initiative in this regard. Compliance with Fair trade, Organic and WHO/GMP guidelines can further assist in building a brand image of good quality honey.



## Chapter - VI

### Recommendations and Conclusion

Beekeeping is an extremely important sector for the socio-economic uplift of rural areas. Besides, it can be taken as the bedrock of sustainable economic growth, not just as a key catalyst for enhancing growth.

Although honey has been identified as one of the 19 items for export promotion by the NTIS, and as a “Thrust Area Development” product by the National Trade Policy 2009, the implementation aspect leaves much to be desired. As it is, these policies have not included bee products, other than honey, in their recommendations. Since other bee products like royal jelly and *propolis* fetch prices higher than honey, they should be given special priority.

Nepal has not been able to identify a reliable export partner for honey. Its export value and volume has not improved noticeably over the years. Therefore, significant measures have to be taken to improve its performance in the beekeeping sector. Based on the analysis above, the study puts forward the following **recommendations** for the promotion of honey in foreign markets:

- Expand the production of honey by promoting bee farming among the marginalized communities, particularly in the mountains, mid-hills and the Mahabharat Range where an abundance of flora is available. Support the farmers through credit, technical know-how, quality control and marketing of their products.
- Control the use of pesticides in agriculture and improve the knowledge of farmers on the use of pesticides; provide new methods of benefit-sharing between farmers and beekeepers upon the adoption of organic farming
- Development of organic farming zones and their utilization for the purpose of beekeeping;
- Formulate and implement a beekeeping policy
- Provide incentives like access to affordable finance, product insurance and market guarantee to attract more people to beekeeping;
- Train beekeepers on the methodology of HACCP and GMP practices, develop integrated value chains and a shared system of responsibility among various stages of the value chain;
- For the purpose of commercialization, identify districts and areas within districts with significant production potential; promote quality and quantity at all stages of the value chain; and provide trainings to farmers on the appropriate collection and processing techniques;
- Promote cooperatives among local beekeepers for honey collection to assist in meeting traceability requirements;
- Immediately pursue the adoption of RMP, coordinate beekeepers across the country to come up with an RMP acceptable to all beekeepers and potential future exporters;

- Develop a national body responsible for quality maintenance, assurance, inspection and promotion for all export related products including honey;
- Change existing standards to comply with international standards of honey;
- Promote labelling and packaging that satisfies the TBT and SPS requirements of honey related products in the export market. Also, put forward measures to get Nepalese honey recognised as a unique product, when compared to honey from other countries, make use of intellectual property rights like geographical indicators;
- Establish a fully equipped and accredited laboratory which can certify the quality of honey.

## Conclusion

Beekeeping has traditionally been a part of national economic activity, but its contribution to export is not noteworthy. On the basis of quantitative and qualitative information collected by this study team, export of honey from Nepal has been rather fluctuating. Bearing all the macro and micro environmental factors into account, the following conclusions can be drawn:

- Lack of infrastructure and institutional support has marred beekeeping and honey export placing them at a disadvantageous position, particularly in comparison with Indian farmers. Because of institutional support, Indian beekeepers are more competitive than their Nepalese counterparts.
- Growth in honey export is not possible without introducing a scientific beekeeping system. Beekeepers need adequate training, financial support and incentives.
- Beekeeping has a direct link with sustainable economic development and poverty reduction. Therefore, it should be promoted as a nationwide campaign.
- Quality aspects should be given top priority with adequate emphasis on production growth.

Beekeeping and honey export can play a dominant role in sustainable economic growth. On top of that, beekeeping helps in improving the life and living of backward community and women. As women are found to be most active in beekeeping, they should be brought to the frontline in the production and marketing chain. Regular studies must be carried out for a timely diagnosis of emerging problems and identifying prospects in its export. Youths and women should be encouraged in beekeeping along with other productive agro-economic activities.

## Bibliography

- Beekeeping Section (2004). *Annual Progress Report 2003/04*. Beekeeping Section, Ministry of Agriculture Development, Nepal.
- CBI. (2011). *Market Factsheet: Silver Jewellery in the EU*. CBI, Ministry of Foreign Affairs of the Netherlands.
- Commission, N. P. (2010). *Three Year Plan 2067/68-2069/70*. Kathmandu: Government of Nepal.
- Commission, N. P. (2013). *Three Year Plan Approach Paper*. Kathmandu: Government of Nepal.
- Coutinho, B. (2013, November 21). *East African Business Week*. Retrieved March 20, 2014, from East African Business Week:  
<http://www.busiweek.com/index1.php?Ctp=2&pl=153&pLv=3&srl=49&spl=27&cl=10>
- Crane, E. (1983). *The Archaeology of Beekeeping*. Cornell University Press.
- Donnelly, K., Roest, van der J., Karlsen, K.M., Olsen, P. (2008). *Traceability of honey: Specification of the information to be recorded in honey distribution chains*. Norway: Nofima, Trace.
- FAO. (n.d.). Retrieved March 11, 2014, from <ftp://ftp.fao.org/docrep/fao/012/i0842e/i0842e10.pdf>
- Joshi, S. R. (2008). *Honey in Nepal: Approach, Strategy and Intervention for Subsector Promotion*. Kathmandu: GTZ.
- JVC. (n.d.). *The Essential Guide to the U.S. trade in Gold and Silver Jewellery*. New York: Jewelers Vigilance Committee.
- Manandhar, P. P. (n.d.). *Current Status of SMTQ in Relation to Honey Export*. Retrieved March 21, 2014, from SMTQ:  
[http://www.google.com.np/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCUQFjAA&url=http%3A%2F%2Fwww.smtqnepal.org%2Fcms%2Fuploads\\_doc%2Fdownloads%2FCurrent%20Status%2520of%2520SMTQ%2520in%2520Relation%2520to%2520Honey.ppt&ei=igMsU\\_m4FsXyrQe9tlGwCg&usg=](http://www.google.com.np/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCUQFjAA&url=http%3A%2F%2Fwww.smtqnepal.org%2Fcms%2Fuploads_doc%2Fdownloads%2FCurrent%20Status%2520of%2520SMTQ%2520in%2520Relation%2520to%2520Honey.ppt&ei=igMsU_m4FsXyrQe9tlGwCg&usg=)
- Mead, M. N. (2010 December). Cadmium Confusion: Do Consumers Need Protection? *Environment Health Perspective*, A528-A534.
- MoCS. (2009). *Trade Policy*. Kathmandu: Government of Nepal.
- MoCS. (2010). *National Trade Integration Strategy*. Kathmandu: Government of Nepal.
- Mwakatobe, A., & Mlingwa, C. (2007). *The Status of Tanzanian Honey Trade - Domestic and International Markets*. Tanzania Wildlife Research Institute.
- Nepal, G. o. (2010). *Nepal Trade Integration Strategy: Background Report*. Kathmandu: Government of Nepal.
- Nepal, G. o. (2010). *Three Year Plan (2067/68-2069/70)*. Kathmandu: Government of Nepal.
- Nepal, G.o. (2013). *Three Year Plan (2070/71-2072/73)*. Kathmandu: Government of Nepal.
- Nepal, G. o. (2011). *Industrial Policy*. Kathmandu: Government of Nepal.
- Nepal, G. o. (2013). *Three Year Plan Approach Paper*. Kathmandu: Government of Nepal.

- Pecanac, M., Janjic, Z., Komarcevic, A., Pajic, M., & Miskovic, S. S. (66). Burns treatment in Ancient Times. *Med Pregl*, 263-267.
- Post, T. K. (2013, April 04). Report on Nepali honey sent to EC for approval. *The Kathmandu Post*.
- Sharma, H. K., Partap, U., & Gurung, M. B. (2012). *Policy and Processes that Enable Honey Export: A Case Study from India*. Kathmandu: ICIMOD.
- Shrestha, J. B. (2007). World Trade Organization and Its Implications on Nepalese Apiculture. *Agricultural Development Journal*.
- Tanzania, G. o. (1998). *National Beekeeping Policy*. Government of Tanzania.
- Tourism, M. o. (2004). *People and Bees: A Plain Language Guide to the United Republic of Tanzania's National Beekeeping Programme*. Government of Tanzania.
- UNCTAD. (2013). *Classification of Non-Tariff Measures*. New York and Geneva: UNCTAD.

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