



# EU Third Country Listing for Nepali Honey

Study and Workshop Findings



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## Abbreviation

AfT	Aid for Trade
ASPIRE	Apiculture Scaling-up Programme for Income and Rural Development
DFTQC	Department of Food Technology and Quality Control
DG	Directorate General
DLS	Department of Livestock Services
DoA	Department of Agriculture
ETB	Ethiopian Apiculture Board
FLO	Fair Labelling Organisation
GAP	Good Agricultural Practices
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoN	Government of Nepal
HACCP	Hazard Analysis and Critical Control Point
IAF	International Accreditation Forum
ICIMOD	International Centre for Integrated Mountain Development
INCLUDE	Inclusive Development of the Economy Programme
ISO	International Organization for Standardization
ITC	International Trade Centre
LDCs	Least Developed Countries
MAPs	Medical and Aromatic Plants
NBSM	Nepal Bureau of Standards and Metrology
NCS	Nepal Council for Standards
NRMP	National Residue Monitoring Plan
PPP	Private Public Partnership
QMS	Quality Management System
SAFTA	South Asian Free Trade Area
SLS	Statutory Instruments
SNV	Stichting Nederlandse Vrijwilligers
SWOT	Strength Weakness Opportunity Threat
TPP	Trade Promotion Programme
TUNADO	The Uganda National Apiculture Development Organisation
UNBS	Uganda National Bureau of Standards
USAID	United States Agency for International Development

## Executive Summary

Honey is one of the 19 priority sectors being identified to be promoted by the Nepal Trade Integration Strategy (NTIS). This study aims to provide prerequisite information and strategies for Nepalese honey in accessing the European Union (EU) market, which is the world's largest honey consumer market. The study covers extensive desk-based research and interviews with relevant stakeholders in the EU such as importers, European honey associations, relevant departments of the European Commission, organic and fair trade organisations and certification bodies. Additionally, a survey among Ethiopian honey stakeholders was carried out.

The study was carried out with the support from the Nepal – German Trade Promotion Programme. The Programme is implemented under the guidance of the Nepalese Ministry of Commerce and Supplies and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, acting on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

### Nepal's Honey Sector

Nepal produced about 1,500 metric tonnes of honey in 2013. Commercial honey production is usually found in the southern and southwest districts of the country such as Chitwan, Nawalparasi, Rupendehi, Dang, Makawanpur, Bardia, Pyuthan, Kailali, Kapilvastu and Surkhet. Wild honey and honey produced by traditional bee keepers is normally sold through informal channels to local markets and neighbouring countries in particular to India and China, while honeys from commercial bee farmers are mainly collected through bee cooperatives and sold to retailers, exporters or distributors.

At present the main commercial importer of Nepalese honey is Bangladesh. Nepal also exports honey to Japan, Taiwan, Malaysia and Middle East. However, the quantity is still small (only 62.9 tonnes in 2013) if compared to its potential production which is estimated as 10,000 metric tonnes per year. The global demand for honey is increasing, imports grew approximately 15% from 2010 to 2013 (ITC 2014). This indicates a big potential for Nepalese honey to tap international, especially the EU market.

### EU Market and Prices

The EU has only 60% honey self-sufficiency, therefore imports are in need to fill the gap. In 2013 China was the major honey supplier (mainly for industrial use) followed by Argentina and Mexico. In general, imports from non-EU countries are increasing. Germany is the leading importer in the EU, it accounts for more than half of the imports. Other major honey importers are the UK, France and Belgium.

A single market strategy for the entire EU market would not work well due to its cultural diversity which has led to different preferences of taste and acceptance in each country. Good quality honeys in particular monofloral or single origin honeys fetch 3-5 times higher retail prices than

polyfloral qualities in particular if they are certified as organic and /or fair-trade. Retail prices for organic certified polyfloral honey are 15-30% higher if compared to conventional polyfloral ones. The survey showed that EU importers currently paying around 2 € for industrial and between 2.5 and 4 € for polyfloral quality honey from non-EU countries (FOB exporting country). Monofloral specialty honeys fetch higher prices. For instance Ethiopian polyfloral organic/fairtrade forest honey is traded between 3.2 € and 4.2 € (2014) compared to around 2 € if sold on local markets. Due to shrinking production in particular in Argentina and in the EU itself, the prices are expected to increase further in future.

Especially for European importers Nepalese honey is attractive due to its reputation as “pure and exotic Himalaya honey”. Additionally honeys from the Himalayan region are often perceived as “organic by default”.

As a Least Developed Country, Nepal is exempted from import tariffs to the EU. The market survey indicated, that importers show honest interest in Nepalese honey. Some have asked for information on production and quality aspects and have expressed their interest in receiving samples.

Importers like Tuchel & Sohn from Germany or Honningcentralen from Norway are already active in developing countries like Ethiopia, Uganda and Zambia, which have only recently managed to enter the Third Country List. These companies as well as Fuersten-Reform, Allos and GEPA from Germany have engaged themselves in cooperation projects and Public Private Partnerships Programmes with international development organizations (e.g. GIZ and SNV).

## **Opportunities and Challenges for Nepal Honey Exporting to the EU**

### **Opportunities**

- The EU is the most attractive honey market in the world
- Third Country Listing opens endless market options globally and demand and prices are increasing
- Export certification will improve the quality and reputation of Nepal honey and Nepal in general
- A boost for high value (honey) products
- Nepal honey has a good international reputation and demand is high
- A boost for improved food safety control systems like HACCP towards international levels
- Increase of skills, knowledge and the level of awareness among the stakeholders
- There are success stories from other countries
- Huge support opportunities available

### **Challenges**

One of the main challenges faced by many non-EU countries including Nepal in exporting honey to the EU are deficiencies in the implementation of the National Residue Monitoring Plan (NRMP). One obvious example is India, the inefficiency of monitoring the implementation has

led to India being deleted from the List of EU Third Countries in 2010. India was reinstated in the list in 2011.

Many beekeepers in the South Asian region still lack awareness for the need of quality and legislative requirements as well as the importance of good beekeeping practices. In addition, the domestic public awareness of food safety and quality assurance is still low. Lower standards are applied for the domestic products and this has led to a negligence of producers and processors in implementing Good Agricultural Practices (GAP).

Cases of sub-standards and mislabelled honey have seriously harmed the reputation of honey from the region. For example, honey adulterated with sugar and overheated were found; bee colonies were treated with fluvalinate to control varroa mites and with tetracycline to stimulate the growth of Apis Cerana bees in beehives; Chinese honey labelled as “Produce of Nepal”; mustard flower honey carrying a label showing bees collecting nectar from Chhuri trees; jar labels missing important information such as the source of the honey. The main challenges are listed herewith:

- The EU is the most difficult market to access
- Third Country Listing is rather bureaucratic and cost intensive
- Export certification includes risks which can lead to de-listing and waste of investments
- There are attractive markets just around the corner and local prices are comparatively high
- Nepal Authorities have more important tasks to shoulder
- The supply chain is too small in volume, remote and not well organized

## **Requirements for Accessing the EU Markets**

Non-EU countries who wish to export their “Products of Animal Origin” to the EU generally have two options: 1) qualifying themselves as candidates for the EU Third Country List or/and 2) complying with the organic requirements and standards of the EU.

A Health Certificate which guarantees that production and processing methods are in accordance to HACCP and ISO principles is required for both options.

Option 2 can be considered as a solution if only organic honey is exported. However, some importers of organic qualities also demand for Third Country Listing, as they say “we like to be on the safe side”.

### **Option 1: Application for the EU Third Country List**

The two major regulations of the European Commission namely Directive 96/23/EC (specifies monitoring of substances and residues in live animals and animal products) and Directive 2001/110/EC, amended by Directive 2014/63/EU (specifies additional honey requirements including composition criteria) have laid down the requirements for the import of honey into the EU.

The main requirements are:

- A clear definition of export product honey  
Note: Only honey from *Apis Mellifera* bees are allowed to enter the EU
- The recognition of specific types of honey
- The composition of honey, e.g. sugar content, moisture content and HMF.
- Labelling: Honey to be exported into the EU must be properly labeled.  
Note: Genetically modified (GM) crops are widespread in Nepal. This would need to be labelled to indicate the presence of GM pollen.
- Packaging: The packaging material or article intended to come in contact directly or indirectly with honey must be sufficiently inert and safe to human health.
- Hygienic practice: The preparation of food products must be in accordance to the General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969). Hazard Analysis and Critical Control Point (HACCP) assures food safety and good hygienic practice. Nepal should consider a HACCP certification of its honey sector.
- Monitoring of residues and contaminants: A systemic Residue Monitoring Plan (RMP) for honey that complies with EU requirements has to be implemented and monitored by the National Competent Authority to ensure the food safety and health of consumers.

### **The National Residue Monitoring Plan (NRMP)**

The European Commission recommends for applying countries as candidate for the Third Country List to implement a National Residue Monitoring Plan which serve as the foundation for certifying the safety of a country's food products including those produced for export. The NRMP needs to specify the means and the framework for monitoring residues of drugs (i.e. antibiotics), pesticides, and heavy metals along the entire value chain.

The initial NRMP needs, among other issues, to specify the estimated export volume, production volume, numbers of monitored samplings (min. 10 for the first 3000 t). It is highly recommended to include also the results of sample residue analysis. The NRMP must be renewed annually. The key elements of the NRMP are as follows:

- Competent Authority: Institution who is in charge of the control and implementation of the NRMP
- Legislative Framework: Set of rules and regulations e.g. on food safety and equivalent standards to the EU legislation
- Accredited Laboratory: A list and detailed description of approved laboratories for sample analyses
- Sampling and Analysis: Description of regulations on the collection of samples, the methodologies and substances analyzed and used.
- Quality Assurance: Results from previous sampling analyses or similar monitoring procedures
- Education Programmes: Technical trainings and awareness raising programmes

The procedures and steps for the application for the NRMP are summarized as follows:

1. The National Authority submits an official request to the European Commission
2. A pre-mission questionnaire is sent by the Commission
3. The draft NRMP is submitted
4. Resolving outstanding issues
5. On the spot inspection
6. Provision of the inspection report
7. The Commission decision is published
8. The product can be exported

## **Option 2: Complying with EU Organic Requirements / Organic Certification**

Organic certified honeys can be directly imported into the EU without the approval as a candidate in the Third Countries List if the product meets the EU Organic Requirements and Standards. The production of organic honey must comply with the EU Regulation 2092/91 and the Regulation (EC) No. 834/2007 which are based on the IFOAM organic standards and includes the certification of the entire value chain. The system requires detailed documentation of each stage from production to export to ensure transparency of the production system as well as risk control management.

A non-EU country which has no organic equivalence agreement with the EU (this applies to Nepal) will need an approved Third Party Control Body to inspect and certify the honey production system.

## **Health Certificate Requirements**

As part of EU import requirement (EC Regulation 852/2004) a Health Certificate is mandatory for both options mentioned above. The attestation requires the implementation of food safety and hygienic procedures that has to be assessed and certified by the National Competent Authority in accordance with HACCP principles. The main human health hazards associated with honey are chemical contamination (which can be derived from unclean equipment, contamination from cleaning chemicals and toxic substances present in the honey factory) and physical contamination (such as nuts, bolts, nails, broken glass, dust, debris, insects, pieces of wood). The seven main principles of HACCP for honey are described in detail in this report.

## **Traceability**

Traceability allows remedial action to be taken if the food becomes contaminated. Insufficient tracing and control mechanism of Nepal's honey production chain had been a major issue and cause for the failure of the NRMP submitted by the Nepal Authority in 2008.

Traceability in the honey sector begins with the documentation of each beehive and the identification of the stages of harvesting and processing, transporting and storing (through the supply chain) until the honey reaches the final consumer. Tracking the flow of honey from beehive to the point of sale needs good collaboration and networks between all value chain actors.

## Lessons Learnt from other Developing Countries

Since 2002 three African countries have successfully managed to transform their honey sector, namely Zambia, Uganda and Ethiopia. The central issue of their sector development strategies was the introduction of international quality standards and food safety regulations which allowed them to become a member of the EU Third Country List.

Today they are recognized suppliers for high quality organic and fairtrade table honey to the EU and other developed markets. Honey production and productivity has been increased too. Nepal's honey sector can tremendously benefit from the experience, both the successful interventions as well as the challenges of those countries.

The most important strategies to fulfil the EU import requirements for Third Country Listing of these countries were:

- Selection and clear definition of the responsibilities of the Competent Authority which has been provided with sufficient resources
- Revision of the National Apiculture Policy and honey standards
- Formulation of the Standard Operating Procedures
- Establishment and empowerment of a National Apiculture Development Board/Association
- Setting up national analytical laboratories
- Consequent focus on certification: organic, fairtrade , HACCP, ISO standards
- In general, strong commitment, active cooperation and organization of all honey stakeholders as the Government, private sector and the development organizations In Ethiopia

In Ethiopia an action plan was produced and the “Honey Quality Working and Value Chain Coordination Groups” were established, which oversaw the application process. One international and three national specialists were assigned to assist the process. The entire procedure was also assisted and funded by international development agencies, however the main driving power came from the private sector. The strong commitment, motivation and innovation of an export company was crucial to motivate the entire sector and building the linkages with the European importers. It was helpful to include test results of samples analysed by an accredited laboratory already during the application phase for the NRMP.

## Challenges in Ethiopia

After several years of relative successful sector development in those countries, there have been some critical cases too. In Ethiopia a case of honey adulteration was discovered, resulting in a serious warning from EU authorities. Also some of the exporting companies have refused to pay their shares for the certification fees. For Nepal this means to consider the inclusion of contractual procedures for a stepwise reduction of subsidies and regulatory procedures which deal with cases of violating common agreements.

## The Nepal Honey Export Road Map

### Validation Workshop

Major steps towards the application for the EU Third Country List were already undertaken. A draft NRMP has been produced by the Nepal authorities and a honey stakeholder workshop was organised on February 19, 2015 with the goal to validate the findings of this study and to decide about the next steps.

During the workshop the participants agreed to form a Task Force. The initial agenda of this group will be to formulate an Action Plan. The representatives of the government institutions agreed to identify the responsibilities and the personnel structure among their departments and form appropriate institutional arrangements. A general deadline for presenting first results was set to March 15, 2015.

### Major steps to be taken for qualifying for the Third Country List are:

1. Identify and review food safety and health related legislations and standards e.g. Food Act (1966) and honey standards, Animal Health and Livestock Services Act 1998, Pesticides Act 1991, National Honey Standard, measurements to be taken for non-compliance, etc.
2. Identify and entirely describe the Competent Authority and Authorised Competent Agencies and their responsibilities. Make sure that they have sufficient resources.
3. Identify and profiling potential beekeepers, processors/honey cooperatives, exporters
4. Set up a “Pilot Honey Export and Third Country Listing Group” assisted by international and national experts and consultants.
5. Describe plans and efforts to implement HACCP and ISO certification procedures
6. Set up expected export volume (suggested 300 tonnes), identify target clients / countries
7. Address the traceability and quality issues within the group, which are
  - Trainings for documentation, HACCP, ISO standards, quality production, storage and transportation
  - Dissemination of manuals for national bee keeping standards, HACCP, GAP
8. Entirely describe the accredited laboratories and processes for sample testing (in Nepal and India). In order to reduce costs for residue testing a sharing system between the laboratory in Nepal and Indian laboratories could be considered.
9. Prepare samplings for residue analysis. Include the results already to the initial NRMP to be sent to the EU authorities. Using an European laboratory will be an asset.
10. Compile the documents required and draft the RMP (strictly using guidelines and templates from the EU Commission)
11. Finalise the NRMP

### Major Steps to be taken to export certified organic honey are:

1. Identify, profile and organise beekeepers / processors  
Checking the economic feasibility (according to the certification body Control Union, initial costs for group certification are approx. 3,500 €, depending on the size of the group and the travel distance to the farmers).

2. Trainings about organic beekeeping, production standards, documentation, agro practices (disease prevention, husbandry management, input material used), HACCP principles
3. Identify importers (there are possibilities for PPPs)
4. Approach an Accredited Control Body (Control Union in this case) and apply for inspection
5. Compile the results of inspection / attestation from the control body and the Health Certificate from the Competent Authority.

## Chapter I: Scope and Methodology

Under the Nepal Trade Integration Strategy (NTIS), which aims to improve the trade capacity and competitiveness of Nepal's honey sector, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) -Nepal has initiated the "Trade Promotion Programme" to further support the capacity development of various stakeholders and market competitiveness of Nepal's honey sector.

The honey sector is one of the 19 priority sectors within the NTIS. Production potential of honey in Nepal is estimated as 10,000 tonnes; however the actual production is around 1,600 tons only.

Because of the richness of floral resources and diverse climatic conditions, Nepal produces a wide variety of specialized honey (e.g. buckwheat honey, Chiuri-butter tree honey and mustard honey)<sup>1</sup>. Therefore, Nepal has a strong potential to be a honey provider to growing niche markets especially in Europe, the world's biggest honey consuming market.

As part of the import requirements of the Council of the European Union (EU), non-EU countries who wish to export their animal based product (which includes honey) to the EU, must be enlisted to the so-called "Third Country List for the import of animal-based products". To be enlisted it needs to fulfil certain quality parameters and must comply with a range of food hygiene and safety regulations (e.g. sanitary and phytosanitary requirements and the Hazard Analysis Critical Point System HACCP).

### Why is Third Country Listing important?

Third Country Listing is the basis for the import of any product of animal origin into the EU countries. No such products, even if certified through other procedures such as fair trade labelling, is allowed to enter an EU country if the export country is not registered in this list (an exception is organic certification). Furthermore, non-EU countries such as Norway and Switzerland also adopted the Third Country Listing system as a basis for their import regulations.

At present, Nepal is banned from exporting any animal-based product to the EU as it is not enlisted in the Third Country List with Approved Residue Monitoring Plan. The EU currently imports about 40% of its honey consumption from non-EU countries<sup>2</sup>. For Nepalese honey the EU is an attractive market with almost endless potential for all quality and price segments. However, to be able to tap this market the EU requirement must be met, which means a common approach of all honey stakeholders in Nepal is necessary. The goal, compliance with the Third Country Listing's requirements also helps to improve the domestic health and

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<sup>1</sup>GIZ-INCLUDE. Value Chain of Nepalese Honey. 2014

<sup>2</sup>European Federation of Honey Packers and Distributors. 2014

consumer food safety mechanism by establishing traceability instruments and international quality standards.

In 2008 Nepal's Department of Food Technology and Quality Control (DFTQC) applied for the Third Country List and submitted a Residue Monitoring Plan to the European Council. The plan was not approved, mainly because of a lack of necessary infrastructure and in-adequate laboratory facilities.

Seeing the needs, the GIZ-Nepal Trade Promotion Project initiated the research study "Facilitation of EU-Third Country Listing for Nepalese Honey". The study aims to

- provide pre-requisite information on developing a Residue Monitoring Plan for Nepal
- give an overview of honey sector development and lessons learnt from Ethiopia and Uganda, in particular their success and experience in applying for the Third Country List and the implementation of the Residue Monitoring Plan.
- recommend a draft Road Map for its implementation
- improve the quality of Nepalese honey products and the reputation of Nepal in general
- boost high value exports of Nepal
- increase the skills, knowledge and the level of awareness among the stakeholders involved in honey sector.

## Methodology

Firstly, the study included a desk-based survey on the pre-requirements and conditions for honey imports into the EU and a visit to the European Commission in Brussels to compile the criteria and information necessary for Third Country List accreditation.

Secondly, interviews were conducted through telephone / Skype or in person to gather information on EU import requirements for organic and fairtrade certified honey. The International Federation of Organic Agricultural Movements (IFOAM), Fair Labelling Organization (FLO), IFOAM EU, European honey associations (e.g. FEEDM) and several certification bodies were contacted.

Market surveys were undertaken and several European importers were contacted to find out the potential for Nepalese honey in the EU. Also, importers were asked to share their experience in importing honey from non-EU countries.

A desk-based study about the honey sector in Uganda and a field visit to Ethiopia were carried out with the aim to gather on-the-spot information from countries which successfully managed the export of honey to the EU.

A validation workshop together with key stakeholders of Nepal's beekeeping and honey production sector was held in Kathmandu.

Finally, the findings of the surveys and reviews were analysed and summarized and a draft report submitted.

## Chapter II: Current State of Nepal's Apiculture Sector

Realising the prospects and significance of honey production and export in reducing poverty, the Government of Nepal (GoN) together with international development organizations have introduced programmes to develop the sector. Nepal is famous for its wild honey which is considered to have a high medicinal value. However, this type of honey is only available in small quantity and therefore it is not feasible for commercial export. According to a value chain study of GIZ-INCLUDE, most of the honey production comes from indigenous bee species (*Apis Cerana*) and from recently introduced bees (*Apis Mellifera*). Nepalese honey can be classified geographically (e.g. mountainous honey or honey from the mid-hills, the Western region or honey from the Terai) or botanically (according to the source of flower extraction). Nepalese honeys are mainly of multifloral origin, however there is also a production of monofloral honeys, i.e. butter tree (*Chiur*) honey, mustard, rudilo, sunflower and lychee honey and occasionally honeydew.

Commercial honey production is usually found in the Southern and Southwest districts of the country such as Chitwan, Nawalparasi, Rupendehi, Dang, Makawanpur, Bardia, Pyuthan, Kailali, Kapilvastu and Surkhet. According to the Ministry of Agriculture, the current annual production is about 1,500 metric tonnes. It is estimated that Nepal has the potential to produce up to 10,000 tonnes of honey per annum<sup>3</sup>.

Wild honey and honey produced by traditional bee keepers is normally sold through informal channels to local markets and neighbouring countries in particular to India.

Honey is also traded through official channels via private companies such as Dabur Nepal Ptd. who purchases over 100 tonnes of honey per year from the Federation of Nepal Beekeepers mainly for national consumption and for export to countries like India, Bangladesh and Bhutan<sup>4</sup>.

### Exports from Nepal

Traditionally Nepal exports honey to countries like Bangladesh, India, Japan, US, Middle East (particularly Saudi Arabia), Malaysia, Taiwan and Korea. Until 2002, Nepal also exported to the EU i.e. Germany, Norway and the UK. Nepal lost its market access in the EU after the introduction of the Regulation Directive 2001/110/EC, which specifies additional requirements for honey to be sold in the EU. In 2007-2008, small volumes of Nepalese honey found its way to new emerging market such as Malaysia (export value worth of NRs 107,523), Taiwan and Japan. At present, Bangladesh emerged as the leading importing country of Nepalese honey with a recorded value of NRs 1.41 million in 2009, NRs 1.46 million in 2010, NRs 5.87 million in

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<sup>3</sup>GIZ-INCLUDE. Honey Subsector-Value Chain Study. 2014

<sup>4</sup> ICIMOD. Quality Assurance for Honey Trade in the Hindu Kush Himalayan Region. 2012

2011 and NRs 1.68 million in 2012, respectively<sup>5</sup>. The export volume is still small (about 63 tonnes) when compared to its production capacity, but the future prospects are encouraging. The efforts to prepare for the Third Country List will boost Nepal's international trade competitiveness and trust not only for the honey sector but also for the entire export industry.

## 2.1 Nepal's Health and Food Safety Regulations and Standards

In Nepal, three food safety related parent statutory laws and their new supplementary food safety regulations address provisions and standards that ensure food safety and protection of human, animal and plant health from exotic pests and diseases. These regulations are:

- Food Act 1966
- Plant Protection Act 1972
- Animal Health and Livestock Services Act 1998

Other legislations which directly or indirectly regulate food safety issues are as follows:

- Pesticide Act 1991 and Regulations 1993 (use of pesticides in agriculture including maximum residue limit of pesticides)
- Animal Slaughterhouse & Meat Inspection Act 1999 and Regulations 2001 (safety of meat)

The Nepal Honey Quality Standard was established and came into force on 5th February 2001 (HMGN 2001). In October 2007, the regulation of the Food Act (1966) also endorsed the drafting of Residue Monitoring Plans for honey. The plan, however was not implemented. The country also has not adopted all international standards and guidelines due to a lack of adequate resources. For instance, Nepal honey standards do not mention the condition of containers, cleanliness, homogeneity, taste, aroma, colour, or labelling for honey. The standards only mention honey should be clean and free from inorganic or organic foreign matter without further details. *Table 1* shows the standards for Nepal honey composition compared with the international standards.

**Table 1:** Honey Quality Standards of Nepal, the Codex Alimentarius and the EU requirement

Quality parameters	Standard Limits set by Nepal Authority		Codex standards		EU Standards	
	Pure nectar honey	Other honey	General	Other	General	Other
Moisture content Max. 18%	Max. 23%	Max. 23%	Max. 20%	Max. 23% (heather honey)	Max. 20%	Max. 23% (heather honey) Max. 25% (baker's

<sup>5</sup> Trade and Export Promotion Centre, Ministry of Commerce and Supplies, Nepal.  
<http://www.efourcore.com.np/tepcdatabank/commoditywise.php?txtmode=search>

						honey- <i>Calluna</i> )
Sucrose content (g/100g)	Max. 5	Max. 10	Max. 5	Max. 10 (honeydew, blends of honeydew and blossom, Robinia, citrus, alfalfa, acacia, red gum, sweet clover, leatherwood) Max. 15 (Lavendula and borage)	Max. 5	Max. 10 (citrus, alfalfa, acacia, red gum, sweet clover, leatherwood) Max. 15 (Lavendula and borage)
Reducing sugars (g/100g)	Min. 65	Min. 60	-	-	-	-
Fructose / glucose ratio	Min. 0.95	Min. 0.95	-	-	-	-
Sum of fructose and glucose (g/100g)	-	-	Min. 60	Min. 45 (honeydew, blends of honey dew and blossom)	Min. 60	Min. 45 (honeydew, blends of honey dew and blossom)
Ash or mineral content (g/100g)	Max. 0.5	Max. 0.5	Max. 0.6	Max. 1 (honey dew or blends of honeydew and blossom)	-	-
Electrical conductivity (mS/cm)	-	-	-	-	Max. 0.8	Max. 0.8 (honeydew, chestnut honey and blends of these with blossom)
Acidity as formic acid	Max. 0.2%	Max. 0.2%	-	-	-	-
Free acid (mg/1000g)	-	-	-	-	Max. 50	Max. 80 (baker's honey)
Water insoluble content (g/100g)	Max 0.5	Max. 0.5	Max.0.1	Max. 0.5 (pressed honey)	Max.0.1	Max. 0.5 (pressed honey)
HMF content (mg/kg)	Max. 40	Max. 40	Max. 40	Max. 80 (honey of declared origin from countries or regions with tropical ambient temperature)	Max. 40	Max. 80 (honey of declared origin from regions with tropical climate and blends of these honey)

Diastase activity (Shade scale)	-	-	-	-	Min. 8	Min.3 (honey with low natural enzyme content (e.g. citrus honey) and an HMF content less than 15 mg/kg)
Sources	ICIMOD, 2012		CAC (2001)		EU Council directive 2001/110/EC Annex II	

In Nepal, food safety and quality management lies under the jurisdiction of the Ministry of Agriculture and Cooperatives. The Department of Food Technology and Quality Control (DFTQC) under the Ministry of Agriculture and Cooperatives is the major government institution responsible for food safety and quality management. Other government authorities that share some responsibilities are the Department of Agriculture (DoA) and Department of Livestock Services (DLS), Nepal Council for Standards (NCS) and Nepal Bureau of Standards and Metrology (NBSM). The DFTQC enforces the Food Act 1966, monitors and regulates food products - while DoA and DLS are responsible to regulate primary production.

### Food Quality Control Standards in Nepal

The GoN (Nepal Standard and Metrology Department) has adopted the Quality Management System QMS (ISO 9001:2000), EMS (ISO 14001:2004), ISO/IEC 17025:2005, ISO 22000:2005 and HACCP (Hazard Control Critical Point) as National Food Control Standards. However, it is not mandatory for all food producers, processors and traders in Nepal to observe and implement the above standards.

In 2012, the Department of Food Technology and Quality Control has certified a total of 25 different food industries according to the Nepal National Standard (ISO Guide 65). *Table 2* describes the type of food industries which have their products certified while *Table 3* shows HACCP certified food industries.

**Table 2:** Certified Food Industries (Nepal National Standard 2012)

Item	Type of Food Processing Industries	Number of Industries
1.	Rice mills	2
2.	Vegetable, sunflower and soya oil mills	12
3.	Beer factory	1
4.	Biscuit Factory	2
5.	Chili powder and spices	1
6.	Instant noodles	3
7.	Jam and jelly and squash	2

8.	Mineral water bottling	1
9.	Condensed milk	1
10.	Wheat flour mill	1

Source: Department of Food Technology and Quality Control

Even though steps and measurements have been taken up to ensure the quality of food production in Nepal as mentioned above, Nepal food producers and authority still needs to meet international sanitary and phytosanitary standards (i.e. the CODEX Alimentarius and HACCP) in order to be competitive with other international producers. So far the honey sector has not been included into the government certification procedures.

**Table 3: HACCP Certified Food Industries**

	<b>Name of Company</b>	<b>Year of certification</b>
1.	Himalayan Distillery, Simra	2009
2.	Highland Distillery, Kathmndu	2009
3.	Himalayan Shangrilla Tea Producers, Ilam	2009
4.	Sujal Dairy, Pokhara	2009
5.	Dairy Development Corporation, Balaju, Kathmandu	2009
6.	Dairy Development Corporation, Lainchaour, Kathmandu	2010
7.	Nepal Small Tea Producer, Fikkal	2010
8.	Nepal Green Tea & Specialty Tea, Fikkal	2010
9.	Asian Thai Foods, Sonapur, Sunsari	2010
10.	Swastic Oil Industries, Sonapur, Sunsari	2010
11.	Unilito, Sarda Group, Sonapur, Sunsari	2010
12.	Bottlers Nepal Pvt. Ltd, Balaju, Kathmandu	2010
13.	Bottlers (Tarai) Nepal Pvt. Ltd, Chitawan	2010
14.	Gorkha Tea Estate, Ilam	2011
15.	Instant Meal, Bhairahawa	2011
16.	Pashupati Biscuit, Duhabi	2011
17.	Hetauda Dairy, Hetauda	2012
18.	Mist Valley Tea Industry, Ilam	2012
19.	June Chiyabari Tea Garden, Dhankuta	2012

Source: Department of Food Technology and Quality Control

## 2.2 Current Policies that promote Honey Sector Development

In 2009 the Nepal Trade Policy 2009 Act has been introduced. This policy identified honey as one of the commodity for trade promotion. The government together with international

organizations developed sector promotion strategies and programmes, including the provision of incentives for honey exporters and traders which are exempted from customs duty, excise duty and value added tax. The private and cooperative sectors are encouraged to establish export promotion houses and an export credit guarantee scheme is introduced.

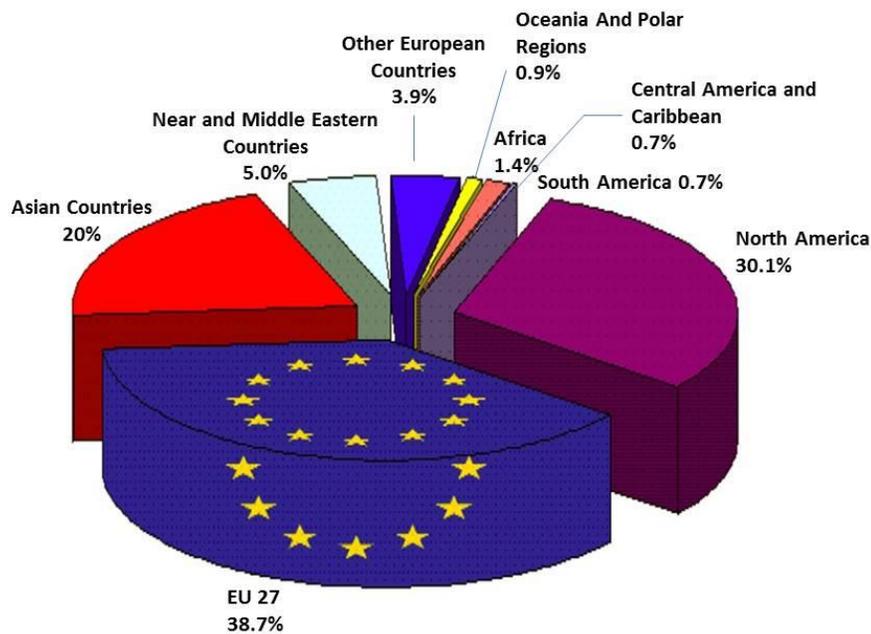
Below are proposed strategies that promote the honey sector development:

- Developing laboratories of international recognition to ensure quality standards and maintain the reliability of honey products.
- Implementing effective inspection and monitoring of bee farming and honey production to maintain the quality standards.
- Diversifying honey production by encouraging production of Nepalese speciality honey particularly based on mustard and rapeseed flowers.
- Improving the packaging system. Imports of machinery and equipment required for the processing of exportable honey will be exempted from tax and customs duty.
- Assisting honey producers through support of capital and technology and appropriate infrastructure to promote production of exportable organic honey.
- Pursuing promotional measures in identified honey importing nations.

## Chapter III: The Honey Market in the EU

The EU plays an important role as a main producer and importer of honey. The European Union is the biggest honey consumer market which accounts for approximately 35% of the world's honey import (253,000 tonnes)<sup>6</sup>. *Figure 1* shows the world's major honey importers. The EU is also the second major global honey producer, producing 23% of the global production after Asia (43% of world's production). To meet the internal demand, the EU member states need to import about 40% of the supply from outside the EU as the region has only 60% honey self-sufficiency<sup>7</sup>. *Table 4* highlights the net import trade balance. In comparison with EU honey imports from Third Countries, EU exports to Third Countries are minute (the former being more than 10 times larger than the latter).

**Figure 1:** World's Honey Import Share per Region in 2010



Source: Eurostat, 2013

<sup>6</sup>Trade Map - International Trade Statistic. 2014

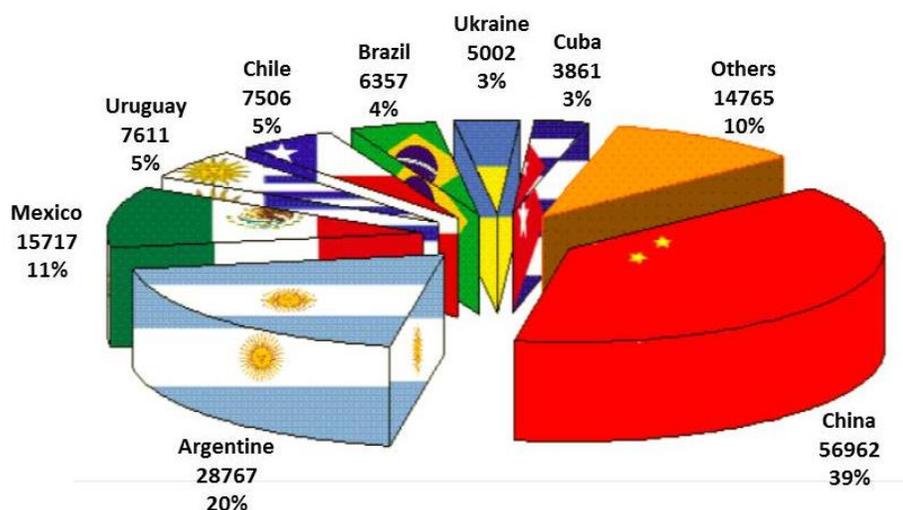
<sup>7</sup>EU Agriculture and Rural Development DG. Evaluation of the CAP measures related to apiculture.2013

**Table 4:** EU Honey Trade Balance 2013

Year	Usable Production (1000 t)	Imports (1000 t)	Exports (1000 t)	Population (million)	Consumption (1000 t)	Self – sufficiency (%)
2008	200	142	10	495	332	60.2
2009	203	137	9	499	331	61.3
2010	224	148	11	501	361	62.0

Source: EU Agriculture and Rural Development DG, 2013

**Figure 2:** EU Honey Import (% of share) from different Regions



Source: Eurostat, 2013

Figure 2 demonstrates that almost all imported honey to the EU originates from developing or emerging countries. Argentina traditionally was the leading supplier to the EU. In the period from 2003 to 2007, honey supply from Argentina has been decreasing significantly and, in 2008 and early 2009, the volume dropped sharply mainly due to bee disease problems like Colony Collapse Disorder. At the same time imports from China increased gradually and Argentina was overtaken in 2010. The supply gap from Argentina and other countries in Latin America has benefited developing countries from Asia and Africa in accessing the EU market, making it a potentially lucrative market for Nepalese honey exports too.

Despite of being a leading importer of honey, the EU has also a small share of the worldwide exports (3.3%) excluding internal trade. EU honey is mainly exported to Switzerland (20%), Japan (16%), the USA (10%) and Saudi Arabia (10%). Member States of the EU also trade

honey among each other. Germany, Hungary and Spain are leading suppliers of honey. Germany is a major importer and a leading exporter at the same time. The German exports consist both of locally produced honey produced in Germany and imported honey. Other emerging exporting countries are Poland, Latvia and Romania.

## Market Demand and Characteristics

The honey market in EU can be categorized into two major sectors: household consumption and industrial use (food, pharmaceutical and cosmetic). In average, 85% of all honey in EU is directly consumed as a spread or as a natural sweetener or literally called as table honey and the rest is used by the industrial sector. Blending of table honey from different sources (eight on average) is a common practice. This type of honey is cheaper and is commonly sold in hypermarkets and discounters. It is often labelled as “Produce of EU and non-EU countries”, which is a rather value-free information, despite complying with the law on labelling. Single origin, monofloral and exotic honeys are often marketed in specialised retail shops.

Industrial honey, which is also labelled as “Baker’s honey” has a 15% market share in the EU as it does not meet the full criteria for table honey. Such honey often has a higher content of hydroxymethyl-furfural (HMF). Honey with more than 40 mg HMF/kg is regarded as low quality and is typically used for the production of bakery goods, confectionery, breakfast cereals, sauces, tobacco, and products such as honey-roasted nuts. Despite competing with substitute products such as sugar, invert sugar syrup and corn syrup, honey is still favoured due to its characteristic taste and its value adding character. In addition, honey is also used in other industry sectors such as in the cosmetics, toiletries and the pharmaceutical industry.

*Single flower, organic and fairtrade honeys are increasingly in demand in the EU*

The demand for honey differentiates from one country to the other in the EU. *Table 5* summarizes the imports from third countries of some EU member states. Germany appears to be the major importer, followed by the UK, France, Belgium and Spain. From a qualitative point of view, each country has its own trends of consumers’ preferences. For example, the French and Hungarian consumers favour the Acacia honey which has a light greenish and yellow colour and it maintains its liquid phases for the longest period of time. Opportunities of darker honey (i.e. honey from the tropics) are limited in certain EU states especially in France which prefer local and mild tasted honey. The sunflower honey is mostly used by the industry. The rapeseed honey is mostly exported to Germany.

*Chinese honeys (perceived as low quality honey by many EU honey stakeholders) fetch lower prices and normally supply the food industry and large retailers*

## Latest Trends in Honey Consumption

According to European Commission data, honey consumption per capita in the EU has remained stable around 0.7 kg/year. Greece, Austria, Germany and Spain show the highest per capita consumption in the EU.

Monofloral and single-origin honeys are increasingly in demand. Besides, the increased concerns for health products and ethical production have intensified the interest in organic honey especially in France, Germany, the UK and the Scandinavian countries. Similar demand is also being observed for fair trade honey. More and more consumers are generally willing to pay more for quality honey.

Another new trend are honey blends, mixed with fruits, nuts or essential oils. Such products are already widely consumed in Italy. In Germany, during the Christmas season, aromatised honey such as honey with cinnamon, nuts, and vanilla is rather popular. Also in Germany there is an increasing trend in marketing locally produced products as a response to climate change and global warming in order to reduce the carbon footprint due to the transportation of the products. Organic + honey (organic *plus* local) is offered mainly in specialized organic shops.

These new trends are considered as ways to add value to the honey without having to undertake expensive analysis in testing and controlling the source of the floral origin, which is necessary for monofloral products.

**Figure 3:** Samples of Monofloral, Organic and Fairtrade Honey sold in the EU



**Table 5:** Honey Imports of major European Countries

Importers	2009	2010	2011	2012	2013
	Imported quantity, Tons				
World	438281	499018	501570	525160	588093
Europe Aggregation	241315	268133	269967	276461	315809
Germany	82588	89550	78554	84129	90376
United Kingdom	32527	34997	39360	33231	38337

France	23513	25308	26964	25481	28763
Belgium	18529	22080	21150	20810	26009
Spain	15269	17718	17961	21081	22096
Poland	7342	11551	13708	14118	19849
Italy	15261	14560	15152	15220	18489
Netherlands	10244	9580	13526	12942	14193
Austria	5540	6327	5878	8452	8634
Switzerland	7549	7893	7434	7825	8169
Slovakia	813	891	1394	1967	5684
Denmark	4019	4043	4764	4654	4907
Sweden	3586	3979	4059	4375	4772
Ireland	1611	1558	2125	3657	3657
Greece	2283	2010	2166	2467	3467
Romania	516	880	1067	1712	2967
Czech Republic	1825	2172	2031	2247	2239
Finland	1029	1286	1232	1329	2223
Portugal	1077	1230	1320	1695	1895
Bulgaria	202	230	289	655	1866
Russian Federation	2361	5370	5403	3208	1242
Norway	345	350	506	802	1024
Lithuania	105	511	611	557	1003

Source: ITC, International Trade Map

### 3.1 Prices for Honey in the EU

In general the retail honey prices in the EU are affected by two main drivers: the type and quality of honey, which includes the differences between table and industrial honey, and monofloral and polyfloral honey. Table honey fetches higher prices than industrial honey, and prices for speciality honey (monofloral, organic and fairtrade) are significantly higher than mixed flower qualities.

Non-EU honey is considered of lower quality compared to products made in the EU, thus it is often placed in the lower price segment. For example, the average import price for polyfloral honey from non EU-origin is around 2 €/kg (2014), whereas monofloral certified honey can reach prices between 4 to 6 €/kg.

*There are no fixed prices for imported honey (and bee products) from countries outside the EU. Prices depend on a set of criteria associated with the product. Prices depend on individual negotiations, linkages and trust between exporters and importers. With a well developed marketing strategy and innovative business portfolio, Nepal honey has a good chance to enter the medium to upper price category.*

Polyfloral honey has the biggest share of imported honey to the EU. However, the increasing demand for monofloral, organically produced and fairtrade honeys opens new niche markets, a sector which already accounts for 10-15% of the table honey sold in the EU. Specialty honey fetches double and sometimes 3-4 times higher prices compared to polyfloral qualities. That being said, there are opportunities for all types of honey to establish themselves on niche markets. For example in Scandinavian countries like Sweden or Norway, consumers have a propensity to consume “exotic” honeys. If Nepalese honey is branded as premium Himalayan speciality honey it will fetch a much higher price as the conventional labels.

**Table 6:** Recent International Prices for Honey (prices per kg)

Type of Honey	Import Price FOB export country	Retail Price EU
Non-EU industrial Honey	about 2 €	3 to 3.5 €
Non-EU polyfloral quality Honey	2.5 to 3.5 €	4 to 10 €
Non-EU organic poly-floral Honey	3.2 to 4 €	5 to 12 €
Specialty, single origin, monofloral organic, fairtrade Honey	6 to 12 €	10 to 25 €

Source: Based on a survey in Dec. 2014 and February 2015

In order for exporters to become economically viable, importers would need to buy Nepal honey from the processors for no less than 3 €/kg (2014). Based on the data obtained from the value chain study “Honey Subsector” of GIZ Nepal<sup>8</sup>, the production costs for processed honey in Nepal was 1.08 €/kg (2014, exchange rate: 1 € = 125 NRs). Profit margins for these processors would then be of around 1.9 €/kg, compared to the current situation that gains less than 1 €/kg through sales in local supermarkets. Additionally, their margins would be further increased, as the importers would stand for the costs of packaging. *Table 6* summarizes the recent international honey prices.

*Table 7* provides an overview of common trade margins for the honey sector.

**Table 7:** International Honey Trade Margins

Item	Description	Percentage %
International freight forwarder	Sea transport, insurance, import formalities	3-5

<sup>8</sup> INCLUDE, GIZ Nepal. Honey Subsector-Value Chain Study. 2014

Customs	Import duties	0 – 17.3*
Local forwarder	Road transport	1 – 10
Importer	Storage, testing, analysis, commission	5
Packer	Blending, filtering, packing, labelling	10
Wholesaler	Wholesale distribution	5 – 10
Retailer	Retail	30 (average)

Source: Data extracted from CBI, 2011

### 3.2 Market Examples in the EU

Even though the legislative system is basically shared by all EU members, the region has a very diversified cultural and market structure. Each country has its own socio-economic characteristics, and preferences. Most of the countries have national laws “on-top” to the EU legislation. The cultural diversity is also reflected in the market behaviour, South Europeans might have a different taste as customers from North or East Europe, a fact which makes a single market strategy for the entire EU almost impossible. Therefore each country must be analysed carefully and the export strategy must be adapted to the local conditions. A brief introduction to four potential markets is given herewith:

#### Germany

Germany is a major importer of honey in the EU and accounts for 51.6% of the total EU honey imports in 2013. Mexico and Argentina are the main suppliers, followed by Ukraine, China and East European countries like Romania and Bulgaria. Germany is also an exporter of honey supplying mainly other European countries such as the UK, Switzerland and Scandinavian countries.

Germany is also the largest market for monofloral honeys e.g. acacia honey, which accounts for about one third of the total market<sup>7</sup>. However, the market of monofloral honey is considered matured and saturated. 60-70% of honey sold in Germany is creamed honey<sup>9</sup>. The organic honey on the other hand is gaining its popularity in Germany. At present organic honey can be found in both big retail chains like REWE, ALDI, Lidl, etc. as well as in specialised organic shops. According to the market study of CBI, the organic honey market has grown up to 10% and the demand is still increasing. The brand “Allos” is the market leader for organic honey in Germany. The demand for fairtrade certified honey is also growing but the supply is still limited. In particular exporters from developing countries consider fairtrade certification as a good market entry strategy to the EU. Tropical honey which often has a strong taste finds niche markets in the EU and is often channelled via Germany.

<sup>9</sup>CBI Market Information Database. 2011

The honey market is traditionally dominated by a couple of brands. Most of them produce mainly local, monofloral, organic and fairtrade honeys, however there is an increasing trend of marketing exotic or “country honey” which is often polyfloral. Most of the country honeys are sourced from Latin and South America or from East Europe. Recently honey from Ethiopia has managed to enter the EU as the first product from Africa.

Main brands are: Langnese of Fuersten-Reform is the leading brand in Germany, having 25% of total market share. Other major brands are Bihophar (organic brand of Fuersten-Reform), Breitsamer, Göbber, Allos (organic), Tuchel und Sohn, Lang and Dreyer and GEPA (fair trade). Major supermarket chains such as Aldi, Lidl and REWE have their own labels.

## United Kingdom

The UK is the second largest honey market in the EU, accounting for about 12 to 15% of the total market of the EU (2010 – 2013). About 57% of the imports originate from China, followed by Mexico (7%) and New Zealand (around 5%). The UK also sources honey from EU member states such as Germany, Belgium, Spain, Ireland and Romania. However, in the recent years, UK firms are also looking for honey from tropical countries such as Zambia and Ethiopia.

A new trend is the emergence of Manuka honey from New Zealand. Due to its anti-bacterial properties, the Manuka honey is priced 380% higher than other imported honeys<sup>9</sup>. Tropical honey has a niche market in the UK. Tropical Forest, an importer of exotic speciality honey mentioned in a telephone interview that consumers generally prefer mild tastes, but a growing number of customers are opening to exotic tastes, thus creating a niche market for speciality honey. Tropical Forest also sources honey for the cosmetic industry. At present, Thailand and Zambia appear to be the major suppliers of such honey.

The current retail price for polyfloral honey in the UK is relative low (about € 5 /kg). However, the price of monofloral or speciality honey is priced 5 to 6 times higher (ranging from € 25 – € 30). The CBI market report 2011 reported that Fairtrade and organic honeys constitute a significant share in the UK. Fairtrade honey sales increased by around 8-10% per annum, while organic honey accounted for 10% of total market in 2010. Organic or fairtrade certified polyfloral honeys are normally priced in the range of € 12 – € 15 /kg.

Retail chains such as Tesco, Waitrose, Morrison’s and ASDA have their own private labels. Rowse Honey is a leading brand in the UK, accounting for about one third of the market. Other major brand is Gale’s of Premium Foods Ptd.

## France

France accounts for about 10% of Europe’s market in 2013. Around 27% of the honey imported to France comes from non-EU countries with China and Argentina being the main trading partners. According to a study conducted by CBI 2011, French consumers exhibit strong

preferences for quality monofloral honeys, acacia honey in particular. The report also suggested that French consumers tend to favour local products. Imported honeys from non-EU countries are normally low priced polyfloral honey blends which are often used for the food industry. The CBI report also claims that the average price of honey imported from third countries is 27% lower compared to imports from EU countries.

Fairtrade labelled honey is a potential niche market in France. According to a report from USAID and SIDA 2012, France represented 10% of global Fairtrade honey sales in 2009 and it is also a considerable market for organic products. Polyfloral honey which has been certified “bio” (equivalent to “organic”) is sold for € 10-15/kg, a significant higher price compared to conventional honey. Local varieties of monofloral and “bio” honeys range from around € 12 per kilo for thyme honey to approximately € 26 for forest or lavender honey, acacia and chestnut honey commanding a price of approximately € 20/kg (sold in 250g/jar). Some imported monofloral honeys are also priced equally high as the local “bio” monofloral qualities (€ 20/kg).

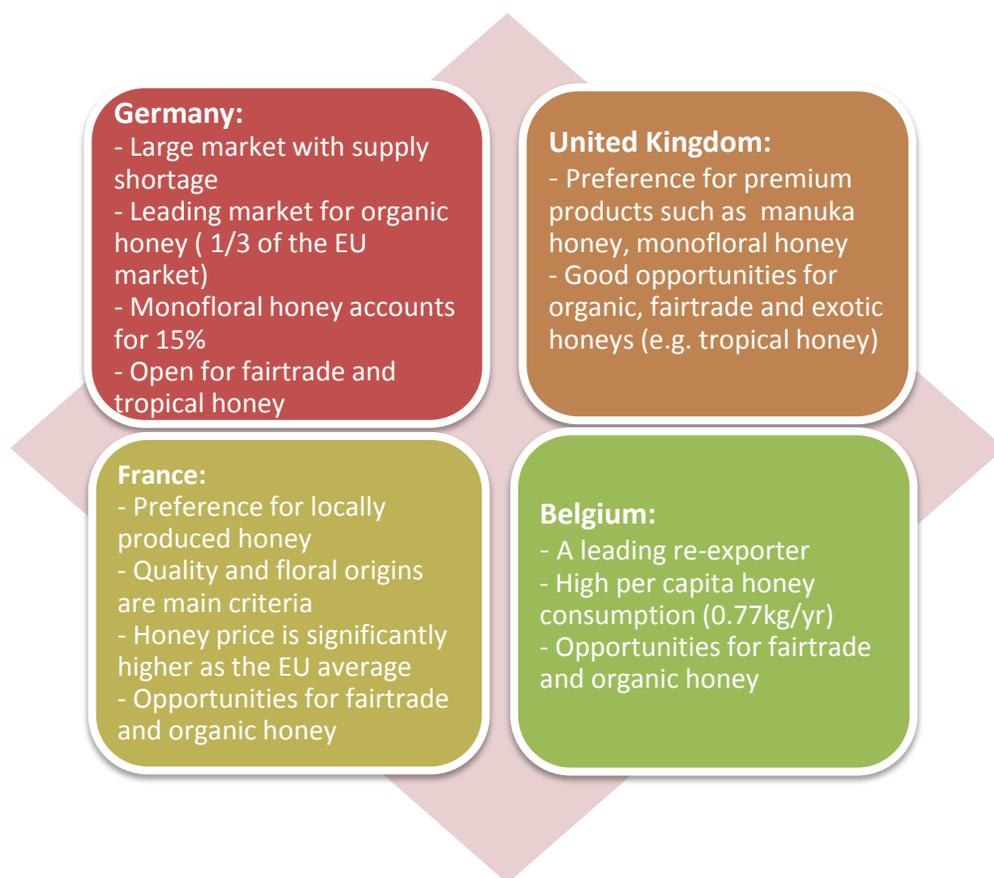
Bernard Michaudis, a leading honey packer and importer from a developing country has its own brand “Lune de miel”. Petit Miel Pocket, Maple Joe, Miel l’ Apiculteur and Naturalim are some other major brands that are found in the French market.

## Belgium

Although Belgium represents a small market in the EU, the honey consumption per capita is considered relative high (0.77 kg/anno). According to the CBI market report, Belgium is primarily a honey re-exporter targeting customers in other parts of the EU such as France, Poland, the UK, the Netherlands and Denmark. The port of Antwerp is a major entry point to the EU. Data from ITC Trade Map indicates that Belgium sources mainly from China (nearly 70%) followed by Mexico and Chile.

Belgium also offers an interesting opportunity for organic and fairtrade honeys. Meli, the leading conventional honey packer in Belgium mentioned that the demand for both, organic and fair trade honeys have steadily increased over the years. The retail price for organic honey regardless of its origin has a premium price which is about € 5 higher than conventional honey (in average € 10-15/kg). Various monofloral honeys e.g. acacia, eucalyptus, lavender, orange blossom can be found in the Belgium market and they often fetch prices up to € 20/kg. Organic certified monofloral honeys also gain a higher price (€ 25 - € 30/kg) compared to non- organic monofloral honeys. Maya Fairtrade and Oxfam are two major organic and fair trade honeys importers in Belgium. *Figure 4* gives a summary of the four EU honey markets.

**Figure 4: Market Characteristics of four major EU Countries**



### 3.3 Trade Channels and Market Entry to the EU

Honey trade in the EU is mediated through importers, processors, packers, wholesalers and retailers. Packers purchase honey directly and indirectly from beekeepers in their country and import from other countries. They have their own brand/label or pack for retail brands. Packers tend to blend most of the polyfloral honey to produce table honey. Importers on the other hand, usually combine the functions of importing honey into the EU with processing, blending and packing. Importers and packers then sell the end product to wholesalers and retailers. Retailers that are buying table honey from packers often belong to big retail groups such as Metro (Germany), Carrefour (France), Tesco (UK), Ahold (The Netherlands), REWE (Germany), Groupe Casino (France), Auchan (France), Delhaize Group (Belgium), Sainsbury (UK). Due to their size, these retail chains have substantial buying power and often create own private labels.

The European Federation of Honey Packers and Distributors (FEEDM) plays a prominent role in the European honey sector. It composes of fourteen national honey associations, individual

companies of different European countries and one associated member from Switzerland<sup>10</sup>. *Annex 1* describes some of important national honey associations in the EU. The members of FEEDM represent about 80% of the total European honey imports. FEEDM aims to co-ordinate the interests of the European honey businesses and to obtain relevant information and market data with regard to honey.

### 3.4 Opportunities for Nepalese Honey entering the EU Market

The EU sees an increasing demand for honey from non-EU countries mainly due to a shortage of the regional supply and an decreasing production in some major honey exporter countries such as Argentina. This has created an interesting market opportunity for honey products from Nepal as well as from other developing countries.

Besides the opportunities, also the risks and challenges must be analyzed carefully. Therefore a SWOT analysis was carried out:

#### **Strengths** (of the Nepal honey sector regarding exports to the EU)

- The sector is prioritised by the Government of Nepal as a part of the NTIS Programme. The sector is also supported by associations (i.e. the Federation of Nepal Beekeepers and Nepal Beekeepers Central Council) and International Development Agencies i.e. GIZ-Nepal, ICIMOD, UN and SNV.
- The National Food Act (1966) has endorsed the development of a Residue Monitoring Plan for honey.
- There are already initiatives taken by the Department of Food technology and Quality Control to upgrade laboratory facilities for residue contamination testing and also steps taken to seek international accreditation for the laboratories' operation.
- There are abundant natural resources for apiculture and monofloral honey production (e.g. Chiuri, buckwheat and mustard honey).
- Trainings have been carried out for beekeeping stakeholders to improve their beekeeping techniques.

#### **Weaknesses**

- Some food safety and health standards and policies are not at par of EU import requirements. For example the implementation of HACCP guidelines is not mandatory for all food producers and processors. Guidelines for the use of veterinary drugs and medicine are not clear.
- The National Honey Standards are not equivalent to the EU requirements as in the Directive 2001/110/EC.

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<sup>10</sup>FEEDM. <http://www.honig-verband.de/index.php?id=16&language=1>

- Laboratory facilities still lack of resources to measure all necessary residues.
- There is general lack of uniform measurement for honey testing.
- There are limited guidelines on labelling and traceability documentation.
- There is a lack of awareness on food safety, good hygiene practices among the supply chain stakeholders.
- Lack of human resources particularly for food quality assurance and control systems.
- Low productivity due to beekeeping techniques. Honey production is not considered by beekeepers as the major source of income.
- Unstructured trade character which leads to side selling which may affect the amount of production for export.
- Lack of physical resources such as honey collection centres, storage rooms, road transport.
- Exposure to high temperature due to transportation and storage can affect the quality of the honey.

### **Opportunities**

- There is a strong market demand, both domestic and international.
- High prices for specialty and monofloral honey.
- Many honey production sites are nearly pesticides free or “organic by default”. Therefore the sector has good opportunities to invest in organic honey production.
- Good international reputation for honey from Himalayan regions
- There is also a strong demand for other bee products e.g. bee wax, pollen and royal jelly. Producers and processors could increase their income by selling these products besides honey.
- Zero import tariff for Nepalese honey in the EU
- Availability of potential investors such as Dabur pvt ltd., international development banks, etc
- Options for establishing PPPs with international honey players

### **Threats**

- Loss of habitat of bees due to deforestation and pesticides contamination.
- Increasing stringent demand and requirement on quality and safety measures by the EU and other developed countries might deter the effort of beekeeping stakeholder to export honey.
- The long distance land transportation may result in difficult tracking of the consignments.
- Existence of “fake” honey by mixing pure honey and sugar syrup may result in losing the international markets.
- Slow implementation of the Residue Monitoring Plan and policies related to apiculture could be a drawback for sector development.

Most of the importers interviewed during this study showed honest interest in Nepalese honey. They asked for information on production and quality aspects and have expressed their interest in receiving samples. Some of them (e.g. Tuchel & Sohn from Germany or Honningcentralen

from Norway) are already active in developing countries like Ethiopia, Uganda and Zambia. Countries, which have only recently managed to enter the Third Country List. These companies as well as Fuersten-Reform, Allos and GEPA from Germany have already engaged in cooperation projects and PPPs with international development organizations, including GIZ and SNV.

### **3.5 Markets for Certified Honey Products**

Organic and fairtrade certification would be an interesting alternative for Nepalese honey producers. Low population densities enable honey production at a safe distance from contaminants. The traditional and extensive production methods practised by the locals and the absence of diseases and problems e.g. the Colony Collapse Disorder could enable beekeepers to produce without using pesticides and antibiotics. The cost of certification would be quickly recuperated as most EU markets show trends of an increasing demand for organic products. Most of the large retail chains (e.g. REWE, Aldi, TESCO, Morrison and Carrefour) have developed own organic and partly fairtrade brands. Certified products are traditionally traded in specialty, organic and in so-called “One-world shops” particularly in countries with a high conscious for fair and environmental-friendly production such as Sweden, Norway, France, Switzerland and Germany. The investment in fairtrade certification on the other hand creates a long-term business relationship and a positive reputation for Nepalese honey. Both, organic and fairtrade traders are rather open in supporting the development of the supply chain actors, in particular the farmer cooperatives and associations. This will be an important asset when problems occur, which is often common during the initial phase of export.

## Chapter IV: EU Market Access Requirements

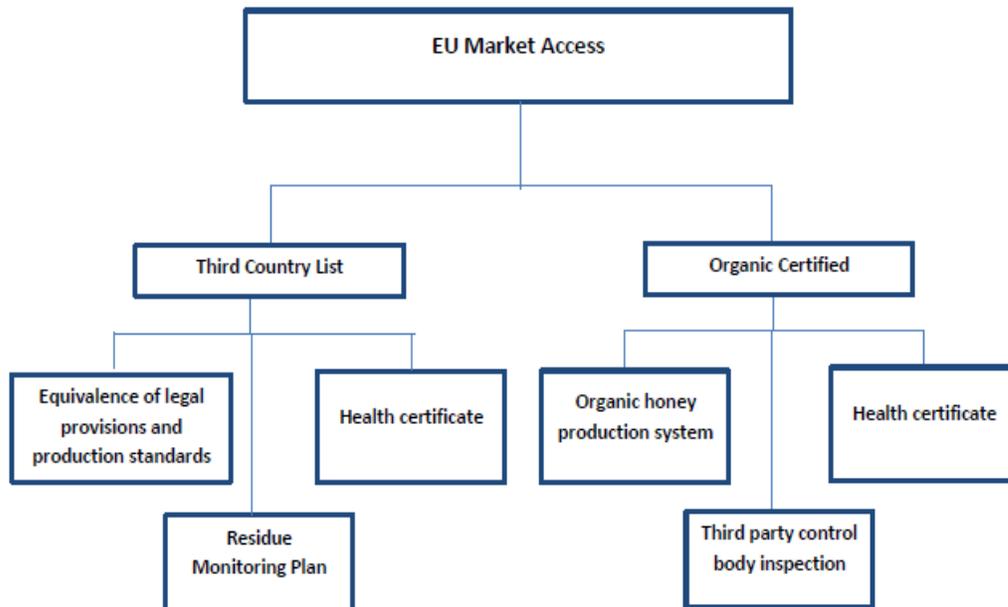
Market access requirements of the EU are mainly associated with consumer health and safety issues besides assuring environmental protection and product quality. Honey production and distribution is subject to the European General Food Law which represents the legislative basic requirements on “safe food”. This includes food safety management systems, rapid alert systems, responsibilities within the food supply chain, the application of HACCP and traceability principles as well as requirements about labelling and packaging.

The research and interviews with EU regulators (in particular the DG Agriculture and Rural Development), importers and bee associations showed that there are two options for non-EU countries to export honeys to EU, namely to

- comply with Third Country List requirements, and / or
- comply with EU organic standards and requirements in particular the Organic Honey Standard

Figure 5 gives an overview of EU market access options for honey from non EU countries.

**Figure 5:** EU Market Access Options for Honey



Honey imports from Third Countries to the EU are regularly subject to bans by EU authorities which are in charge to enforce the European General Food Law and the Directive 2001/110/EC. For instance, Chinese honey was banned from 2002 to 2004 due to contamination with chloramphenicol (antibiotic used for sick bees); India was removed from the “Third Country List” in 2010 because residues of antibiotics (ciprofloxacin and erythromycin) were found; in 2011, Chinese, Argentinean and Chilean honey were temporally banned due to contamination with GMO pollen; a ban was imposed on honey from Brazil in 2007 as no agreement could be made on testing procedures and standards. Such bans have left huge impacts on honey exporters as well as international trade and prices.

#### **4.1 Third Country List Requirements**

Compared to other developed countries (including US and Japan) the EU has the most stringent standards for honey. If a non-EU country wishes to export their animal origin products to EU, it is necessary to assure that their legal provisions i.e. food safety standards, health legislations (for both human and animal) are equivalent to the EU requirements. In addition to that, it is mandatory for the non-EU country to guarantee the quality of the products by implementing a Residue Monitoring Plan which is approved by the EU Commission. Upon successful fulfilling the requirements, the country would then be enlisted as a candidate of the Third Country List which would enable them to exports to the EU.

#### **Legal Provisions and Production Standards**

Main EU instruments for regulating food safety in the honey sector are as below:

- Directive 96/23/EC (Monitoring substances and residues in live animals and animal products)
- Directive 2001/110/EC, amended by Directive 2014/63/EU (specifies additional honey requirements including composition criteria)
- Regulation 2377/1990, Regulation 37/2010 and amended by 470/2009 (Pharmaceutical substance residues)
- Regulation 178/2002 (Food Safety)
- Regulations 852/2004, 853/2004 and 854/2004 (Hygiene)
- Regulation 396/2005 (Pesticide residues), amended by 149/2008
- Regulation (EU) No 1169/2011 on the provision of food information to consumers (FIC)

The Directive 2001/110/EC and Directive 2014/63/EU specify additional requirements for honey which include:

- Definition of honey
- Recognition of specific types of honey
- Composition of honey

- Labelling
- Packaging
- Monitoring of residues and contaminants
- Hygienic practice

## Definition of Honey

In the EU honey is defined according to the Codex Alimentarius. However, the EU limited the definition of honey bees only to one species of bees, the *Apis Mellifera*<sup>11</sup>. It therefore excludes all type of honeys produced by other species, meaning excluding most types of honey traditionally produced in Asia and several types of Africa. This results in controversial interests and discussions, in particular about the conservation of the biodiversity. The Directive also recognizes several types of honey, which have been designated with specific product names (e.g. honeydew honey, chunk honey, bakers' honey, etc.). Only these types of honey may be placed on the EU market as honey intended for human consumption.

Table 8 presents the designated product names and the two designation criteria: origin and mode of production. The Directive also defines industrial honey as Bakers' honey.

**Table 8:** Designated honey product names defined and approved by EU

Designated product names		
according to origin	i)	blossom honey or nectar honey: obtained from the nectar of plants;
	ii)	honeydew honey: obtained mainly from excretions of plant sucking insects (Hemiptera) on the living part of plants or secretions of living parts of plants
according to the mode of production	i)	comb honey: stored by bees in the cells of freshly built broodless combs or thin comb foundation sheets made solely of beeswax and sold in sealed whole combs or sections of such combs
	ii)	chunk honey or cut comb in honey: contains one or more pieces of comb honey
	iii)	drained honey: obtained by draining decapped broodless combs;
	iv)	extracted honey: obtained by centrifuging decapped broodless combs
	v)	pressed honey: obtained by pressing broodless combs with or without the application of moderate heat not exceeding 45 °C;

<sup>11</sup>**Directive 2001/110/EC:** Honey is 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.

	vi) filtered honey: obtained by removing foreign inorganic or organic matter in such a way as to result in the significant removal of pollen
Baker's honey	(a) suitable for industrial uses or as an ingredient in other foodstuffs which are then processed and (b) may: <ul style="list-style-type: none"> <li>• have a foreign taste or odour, or</li> <li>• have begun to ferment or have fermented, or</li> <li>• have been overheated</li> </ul>

## Composition of Honey

Honey consists essentially of different sugars, predominantly fructose and glucose, as well as other substances such as organic acids, enzymes and solid particles derived from honey collection. Directive 2001/110/EC limits human intervention that could alter the composition of honey and thereby allows for the preservation of the natural character of honey. In particular, Directive 2001/110/EC prohibits the addition of any food ingredient, including food additives, and any other addition (flavour, aroma), or taint absorbed from foreign matter during its processing and storage. Similarly, that Directive prohibits the removal of any constituent particular to honey, including pollen, unless such removal is unavoidable in the removal of foreign matter. Those requirements are in line with the Codex Alimentarius standard for honey (Codex Stan 12-1981). Deliberate addition of pollen to honey by food business operators is also prohibited. Regulation (EU) No 1169/2011 also define the meaning of pollen being a natural constituent particular to honey, pollen should not be considered to be an “ingredient” of honey. *Annex 3* describes the EU standard requirement for the composition of honey.

## Labelling of Honey Products

The Directive 2001/11/EC indicates the need of full information of geographical characteristic and the country of origin. Since December 13, 2014 the Labelling Regulation (EU) No 1169/2011 Food Information to Consumers (FIC) came into effective (replacing and updating Directives 2000/13/EC on the labelling of foodstuffs and 90/496/EEC on nutritional labelling) which requires the labelling of honey containing genetically modified pollen.

The EU has a zero-tolerance policy on the marketing of food containing GMOs (even less than 0.1%), or ingredients produced from GMOs (under article 3(1) of the GM Regulation 1829/2003) if they are not approved for food use in the EU. This means, if imported honey contains pollen “produced from GMOs” that are not authorised for food use in the EU it cannot be sold or marketed. Currently, GMO strains of cotton, maize, OSR, soybean and sugar beet are authorised by the EC to be used in foodstuffs. Honey imported from countries listed in *Table 9*, where cultivation of GM crops is widespread, would need to be labelled to indicate the presence of GM pollen.

**Table 9:** Third Countries authorised to export honey to the EU that cultivate GM crops

Authorised Third Countries	Species of GMO crops approved for commercial cultivation
Argentina	Soybean, maize, cotton
Australia	Cotton, oilseed rape
Brazil	Soybean, maize, cotton
Canada	Oilseed rape, maize, soybean, sugar beet
Chile	Soybean, maize, cotton
China	Cotton, papaya, poplar, tomato, sweet pepper
Cuba	Maize
India	Cotton
Mexico	Cotton, soybean
United States	Soybean, maize, cotton, oilseed rape, sugar beet, alfafa (lucerne), papaya, squash
Uruguay	Soybean, maize

Source: EU Commission Decision 2011/163/EU

The new ruling may enhance the levels of inspection, sampling and analysis in which additional cost may need to be taken into account once there is a doubt of GMO contamination. According to a study report<sup>7</sup>, the potential overall costs of testing of one honey sample could range from € 250-450 if GM pollen is present and event specific detection and quantification is performed.

For honey imported into the EU, following information, in the language of the importing country, must be included on the label:

- |  |
|--|
| <ul style="list-style-type: none"> <li>• The name under which it is sold</li> <li>• The gross and net weight</li> <li>• The date of minimum durability – ‘best before’</li> <li>• Any special conditions for keeping or use</li> <li>• The name and address of the manufacturer, packager or importer established in the EU</li> <li>• Place of origin or provenance</li> <li>• Lot marking on pre-packaged foodstuffs with the marking preceded by the letter “L”</li> <li>• Drum number (if exported in bulk)</li> </ul> |
|--|

In addition, according to Council Directive 2001/110/EC, all honey which is blended and traded in the EU must be labelled either “blend of EU honey”, “blend of EU and non-EU honey” or “blend of non-EU honey”.

## Packaging

The import of materials and articles intended to come in contact with food is regulated by EC Regulation 1935/2004, in which it is stated that “any material or article intended to come in contact directly or indirectly with food must be sufficiently inert to preclude substances from being transferred to food in quantities large enough to endanger human health or to bring about an unacceptable change in the composition of the food or a deterioration in its organoleptic properties.” Therefore the material used to manufacture the packaging material is important for Nepalese processors and exporters, not only for safety reasons, but also in terms of both quality and marketing and value addition. Plastic containers are more likely to leak during transport, compared to glass jars which may lead to losses in export volumes as well as higher risks of fermentation of the honey. Moreover, honey sold in retail shops in the EU is often packed in glass containers of 250 to 500 grams with a metal screw cap. The absence of local suppliers for such processing inputs producer will also lead to high production costs. Packaging of bulk honey for export is of 205 or 210 litre steel drums that are of good quality and coated with food safe paint, clean and moisture proof.

## Residues and Contaminants

The legislation of EU Directive 96/23 clearly states all food of animal origin (including honey) consumed within the EU must be free from or within the maximum limits of harmful residues of veterinary medicines, drugs, pesticides and environmental contaminants (e.g. heavy metals). Member states of the EU implement Residue Monitoring Plans (see further details in the chapter below: *Residue Monitoring Plan*) and provide samples of imported food stuffs (according to Regulation 136/2004) to monitor the residues and contaminants. Importing countries must also comply with EU phytosanitary regulations to prevent the entry and spread of plant diseases and pests in the EU.

## Hygienic Practice

EU Food Law which is in line with Codex Alimentarius Commission (CAC/RCP 1-1969) requires the preparation of food products (handling methods and processes) in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice. The methodology of Hazard Analysis and Critical Control Point (HACCP) is considered an assessment tool that can assure food safety.

Non-EU countries, which meet all EU’s requirements and are approved, will be listed in the Third Countries List and are eligible to export honey to the EU. One should also note that the list

of third countries is subject to changes. Countries can be removed from the list if they do not fulfil the requirements anymore. As per EU Decision 2014/355/EU there are 43 countries accepted in the Third Countries List (*Annex 4*). However, individual EU Member States may require specific import conditions and determine from which establishments (in an approved Third Country) they allow imports onto their territory. Therefore, after approval of the country, it would be advisable to check with the Competent Authorities in the EU Member State where the product will be marketed.

For non-EU countries it is also to be noted that besides fulfilling the EU legal requirements, each batch of the product must be accompanied by a Health Certificate signed and stamped by an authorised veterinary officer of the national Competent Authority stipulating that it meets the animal and public health requirements laid down in the Directive for import into the EU Member States. One may also need to meet the potential buyer requirements. These are the requirements one can expect from the potential EU buyer which includes honey samples testing. The German importers in particular, would prefer the samples being tested in their own country e.g. at the Institute for Honey Research in Bremen to ensure the quality of the imported honey.

#### **Key Requirements of the Application for the Third Country List:**

- *A centrally coordinated Residue Monitoring Plan*
- *Description of legislation governing the authorisation, distribution of veterinary medicines*
- *Number of samples comply with the sampling levels and frequencies of Article 7*
- *Animals (including bees) are not treated with stilbenes, thyrostats and estradiol*
- *Animals (including bees) are not treated with steroid hormones and beta-agonists for growth promotion*

### **Residue Monitoring Plan (RMP)**

The presence of residues of veterinary drugs (i.e. antibiotic), pesticides, and contaminants such as heavy metals in foodstuffs remains a foremost concern of food regulators. Therefore it is essential that a systematic monitoring will be implemented in order to ensure the food safety and health of consumers. This prescribed activity is strictly required in the EU for countries who wish to export animals and animal products (including honey) to EU. The Directive 96/23/EC specifies exporting countries to the EU to submit and implement Residue Monitoring Plans and provide guarantees and meet the requirement of Article 4 and 7. Government authorities or the Competent Authority of the Third Country play a major role in coordinating and implementing the Residue Monitoring Plan. An annual monitoring report of the plan is to be submitted by the competent authority to the EU Commission for verification. On the spot inspection may be conducted by the EU Food Veterinary Office for such purpose.

### **Key Elements of the Residue Monitoring Plan**

The European Commission recommends that applying countries should implement National Residue Monitoring Plans which serve as the foundation for certifying the safety of a country's food products including those produced for export. The RMP for honey needs to specify the

means and the framework for monitoring residues of drugs, pesticides, and heavy metals from production to sale and consumption.

The RMP delineates the role of governmental agencies or Competent Authorities (e.g. Department of Food Technology and Quality Control, Department of Livestock Services in Nepal) and value chain operators (e.g. honey producers, cooperatives, processors, traders and exporters). RMP also identifies mechanisms for cooperation and the means of assuring food safety and consumer health when dealing with new or emerging challenges. For instance, measures to be taken in case of non-adherence to legislation. RMP specifies the status of testing laboratories, the types of substances to be sampled and official sampling and analysis procedures. It is important to be noted here that the quality control and residue monitoring needs well-equipped laboratories run by accredited bodies with trained personnel. The EU requires national bodies or laboratories to be recognized by the International Laboratory Accreditation Cooperation (ILAC) forum (see [www.ilac.org](http://www.ilac.org)) and the International Accreditation Forum (IAF).

The plan should be applied along the entire value chain and their proper implementation entails the cooperation of all actors including beekeepers, honey traders, industry, government agencies, and scientists. Educational programmes and awareness among all stakeholders about the importance of monitoring for residues are to be in place to increase the efficacy of implementing the plan.

For the initial RMP, it is highly recommended to include results of residue analyses from selected samples. *Figure 6* summarises the key elements of the RMP. An example of an Indian Honey RMP for EU export can be accessed through this link:

<http://www.eicindia.gov.in/services/Pre-Compliance/Residue-Monitoring-Plans.aspx>

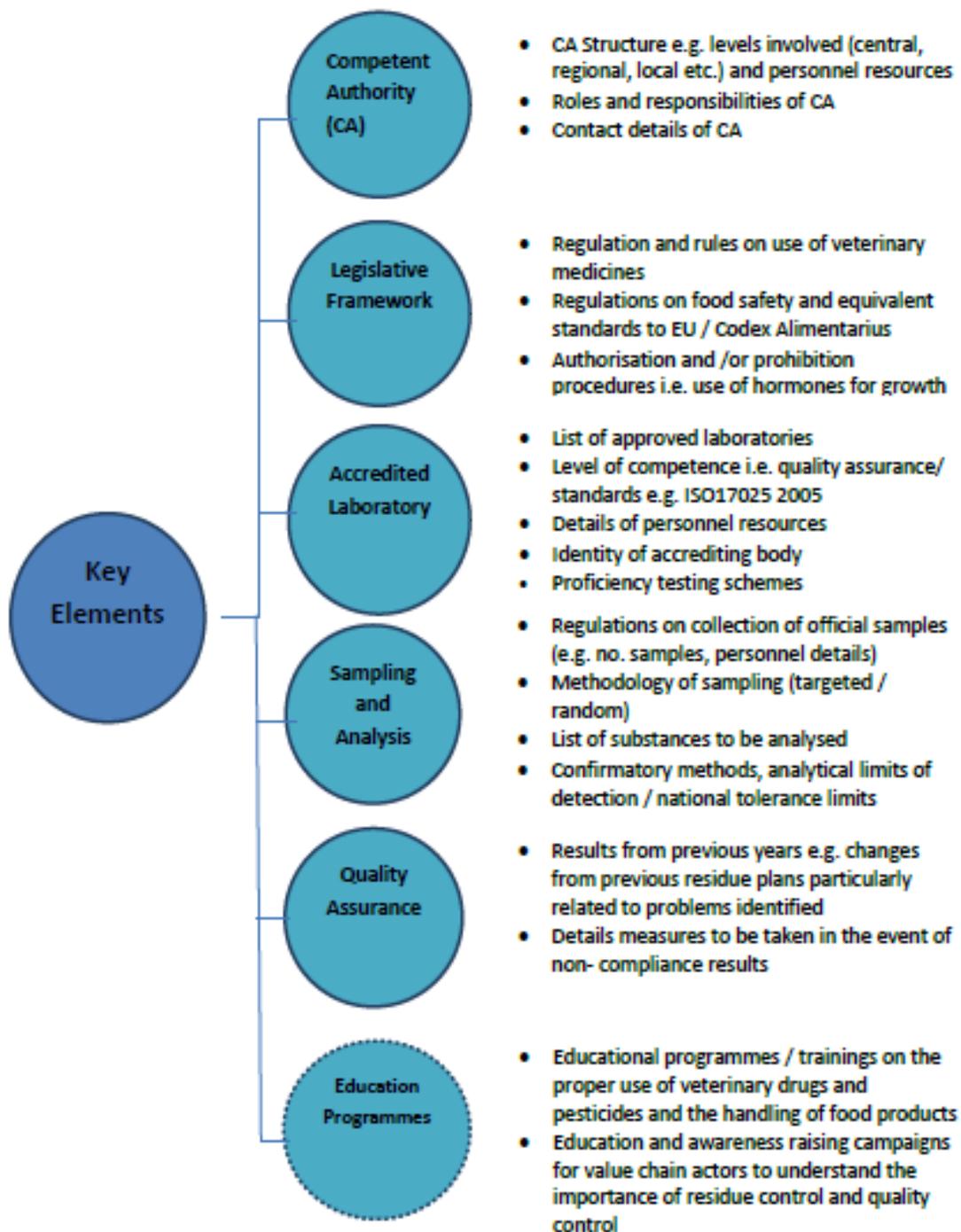
The EC handout “Imports of Animals and Food of Animal Origin from Non-EU Countries” can be found under:

[http://ec.europa.eu/food/food/chemicalsafety/residues/third\\_countries\\_en.htm](http://ec.europa.eu/food/food/chemicalsafety/residues/third_countries_en.htm)

*Annex 6* shows templates for the RMP for honey which are required by the EU.

*Figure 6* summarizes the key elements of the Residue Monitoring Plan.

**Figure 6: Key Elements of the Residue Monitoring Plan**



The European Commission has a set of legislation which regulates the monitoring of residues in food products. The Decision 2001/159/EC (modified in Decision 2001/487/EC) stipulates that honey (and all products of animal origin) must be checked for:

- residues of veterinary drugs and antibiotics / antiparasitic (Group A),
- residues of pesticides (Group B) such as organochlorine compounds (including PCBs – polychlorinated biphenyls), organophosphorus compounds, pyrethroids, carbamates,
- heavy metals,
- other miscellaneous substances.

It is important to note that the EU does not authorise the use of antimicrobial drugs for treatment of honey bees in the EU. Therefore no EU maximum residue limit of the substance is established for honey. This means if there is any presence of detectable residues in the consignments of such substances in imported honey, the consignments will be immediately rejected and the country of export may be subjected to a temporary ban. The EU Directive 91/414 Section 2.5.3 regulates the use of pesticides in the context of apiculture: “. . . no authorization will be granted if the hazard quotients for oral or contact exposure of honeybees are greater than 50, unless [...] there are no unacceptable effects on honeybee larvae, honeybee behaviour, or colony survival and development after the use of plant protection products ...”. In April 2013 the EC imposed a temporary ban of the three neonicotinoid insecticides that are particularly considered as damageable for bees and pollinators. *Table 10* presents a detailed breakdown of residues of substances to be tested and permissible levels for honey as required by the EU.

According to Directive 96/23 the sampling frequencies for residue tests are based on the annual national production eligible for export. For honey, the number of samples to be taken each year must be at least 10 per 300 tonnes of annual production of honey for the first 3,000 tonnes and one sample for every additional 300 tonnes. The EU allows samples of honey to be taken at any point in the honey production chain provided it is possible to trace the honey back to the original producer. The official samples for honey are to be taken in accordance:

Group B 1 and Group B 2 (c): 50 % of the total number of samples,

Group B 3 (a), (b) and (c): 40 % of the total number of samples.

The balance: 10 % must be allocated according to the experience of the countries, giving particular consideration to mycotoxins.

**Table 10:** Breakdown of residues of substances to be tested and permissible levels for honey

GROUP OF SUBSTANCES TO BE MONITORED	COMPOUND or MARKER RESIDUE	Max Permissible level
<b>A6. CHLORAMPHENICOL</b>	Chloramphenicol	Absent
<b>A6. NITROFURANS</b> Nitrofurantoin metabolite Furaltadone metabolite	AHD AMAZ	Absent

Furazolidone metabolite Nitrofurazone metabolite	AOZ SEM	
	Streptomycin	Absent
	Sulphonamides (i.e. Sulfadimidine Sulfadiazine Sulfadimethoxine Sulfadoxine Sulfamerazine Sulfanilamide Sulfamethoxypyridazine Sulfamethoxazol Sulfathiazol Trimethoprim)	Absent
	Tetracyclines (i.e. Tetracyclin Oxytetracyclin Chlortetracyclin Doxycyclin)	Absent
	Tylosin	Absent
<b>B2c. CARBAMATES</b>	Carbaryl, Carbofuran, Propoxeur	0.01 mg/kg
<b>B2c. PYRETHROIDS</b>	Cyfluthrin, Cyhalothrin, Fluvalinate, Cypermethrin	0.05 mg/kg
	Deltamethrin	0.03 mg/kg
	Permethrin	0.01 mg/kg
<b>B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES i.e. ANTIPARASITIC</b>	Cymiazol Amitraz	Absent 0.2 mg/kg
	Flumethrin Tau-fluvalinate	Absent Absent
<b>B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBS</b>	Aldrin, Dieldrin, Chlorobenzilate, DDT, Endosulfan, HCH, Lindane, Heptachlor, Hexachlorobenzene	0.01 mg/kg
	Vinclozolin	0.05 mg/kg
<b>B3b. ORGANOPHOSPHORUS COMPOUNDS</b>	Caumaphos	0.1 mg/kg
	Malathion	0.02 mg/kg

	Phosalone	0.01 mg/kg
<b>B3c. CHEMICAL ELEMENTS</b>	Lead	Absent
	Cadmium	Absent
	Mercury	Absent
	Arsenic	Absent
	Iron	Absent
	Zinc	Absent

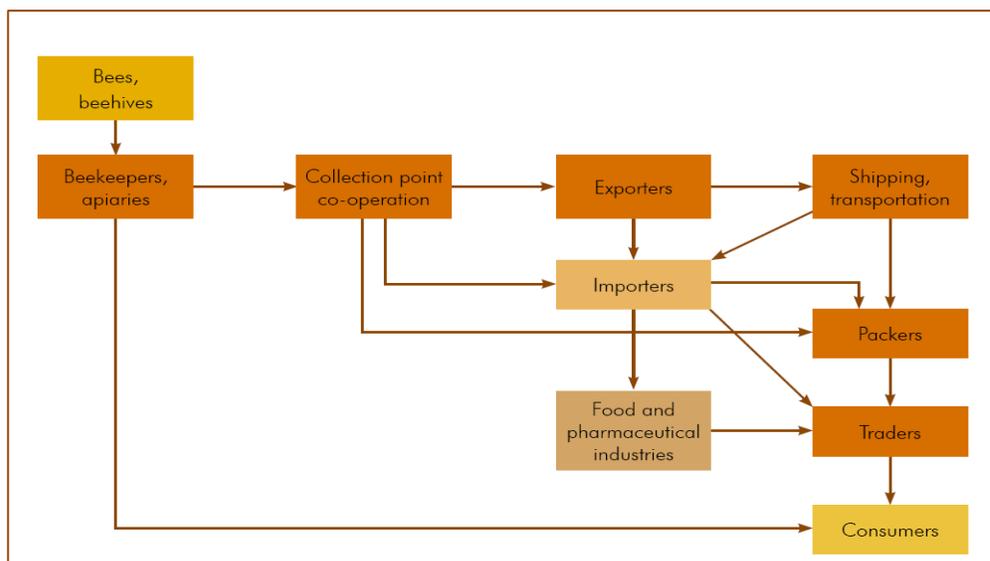
Note: The EU does not allow the import of products that are treated with stilbenes, thyrostats and estradiol, steroid hormones and beta agonists. Antimicrobial drugs are not authorised for the treatment of honey bees in the EU and thus there is no establishment of EU MRL. Any residue from above mentioned substances is not permitted at all and the consignment will be rejected completely.

### Tracing Contamination

Traceability of a product is a crucial part of monitoring residues and contaminants in food products including honey. It is the ability to trace the point at which any residues or contamination could have entered into a food product (supply chain). Traceability is a tool that allows for remedial action to be taken if food becomes contaminated. Standard 22005:2007 of the International Organization for Standardization (ISO) gives the principles and specifies the basic requirements for designing and implementing traceability systems at any step in the feed and food chain. The European Union regulations on traceability came into force in January 2005 and importers must identify the origin of their products.

The traceability in honey sector begins with the documentation of each beehive and its identification of the stages of harvesting and processing, transporting and storing (through the supply chain) until the honey reaches the final consumer. Tracking the flow of honey from beehive to the point of sale would need good collaboration and networks between the actors at each stage of the production and distribution chain which is shown in *Figure 7*. The actors in the honey supply chain include beehives and beekeeping equipment suppliers, beekeepers, honey processors, storage container suppliers, distributors, storage holders, wholesalers, and retailers need to record information at each step to track the flow of the honey. This is to ensure that the targeted and accurate withdrawals could be traced if contamination or other food safety issues are identified. Hence the need of proper records on each container of honey supplied to collection centres is important. Examples of documents for each actor to be filled and maintained are given in *Annex 7. Table 11* illustrates the types of information to be documented by beekeepers, collection centres, honey processors, traders, and distributors on stocks of honey they handle.

**Figure 7: Stages of the Honey Supply Chain (Source: QSI)**



**Table 11: Traceability information required to be documented by each actor**

Actors	Information required
Beekeepers	<ul style="list-style-type: none"> <li>• Labelling of hives and position of colonies</li> <li>• Origin of honeybee queens</li> <li>• Feed (floral, sugar syrup, pollen substitute, etc.)</li> <li>• Wax origin, date of exchange</li> <li>• Disease control measures, drugs used</li> <li>• Date of honey extraction</li> <li>• Honey treatment, processing, and storage</li> <li>• Delivery of honey</li> </ul>
Collection centres / cooperatives	<ul style="list-style-type: none"> <li>• Origin of the honey suppliers</li> <li>• Delivery of honey</li> <li>• Honey treatment/processing, e.g. mixing, clearing, homogenisation, filtration</li> <li>• Storage time and condition</li> </ul>
Exporters / Importers	<ul style="list-style-type: none"> <li>• Origin of the honey: suppliers name, address, date, quantity, lot number</li> <li>• Delivery of honey: name/address of the transportation enterprise, date, quantity, lot number</li> <li>• If special commissions are assembled:               <ul style="list-style-type: none"> <li>- registration of sub-lots</li> <li>- new lot/batch number</li> </ul> </li> <li>• for Shipping additionally:               <ul style="list-style-type: none"> <li>- container number</li> </ul> </li> </ul>

	(e.g. via SSCC - Serial Shipping Container Code) - location of the container - destination port
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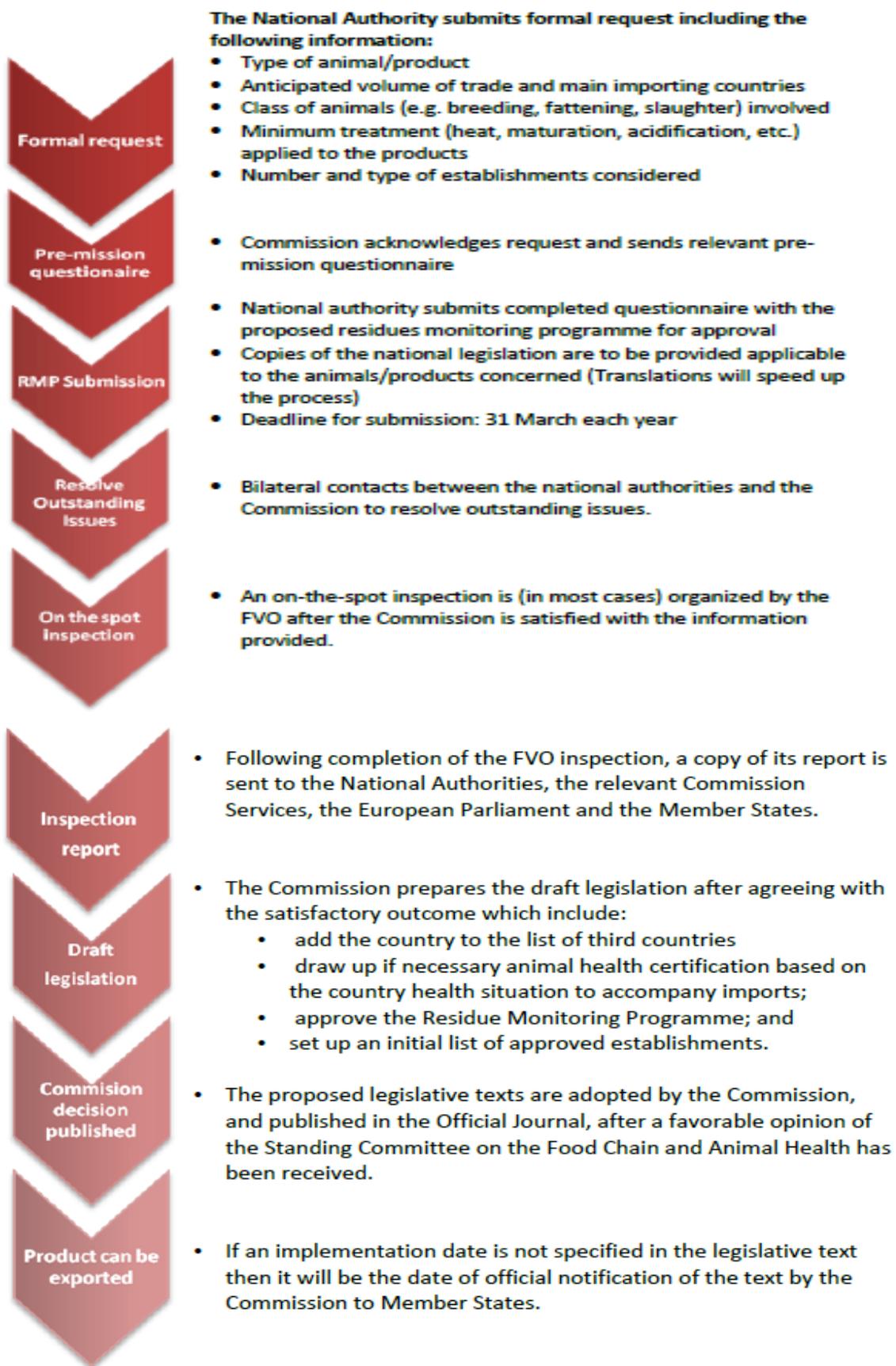
## Procedures for Enlisting in the Third Country List

There are 8 keys steps involved in the application to become a candidate of the Third Countries List. According to Mr. Ghislain Marachal, who is responsible for international relations in the EU DG Health and Food Safety, the process normally will take about 3 to 6 months (excluding the period of outstanding issues that are prior to be resolved) to reach a decision.

A brief description of the sequence of individual steps and actions to be followed where a Third Country seeks approval is given below. *Figure 8* summarizes the sequence of the procedures.

For most commodities, where a request for approval is received by the Commission, a preliminary questionnaire (see *Annex 5*), relating to the animals/products in question, will be sent to the national authorities. This is designed to assess whether EU requirements can be satisfied and to gather information prior to a possible on-the-spot inspection by the FVO (Food and Veterinary Office located in Grange, Ireland)

In most cases, an on-the-spot inspection by the Commission inspection service of the Health and Consumers Directorate General, DG SANCO (FVO) is required before approval can be considered. This is designed to evaluate whether the animal and public health situation, the official services, the legal provisions, the control systems and production standards, etc., meet EU requirements. When the information provided by the National Competent Authority is considered satisfactory, and the FVO inspection leads to a favorable recommendation, the Commission will adopt the necessary legislation to grant approval for imports after receiving a favorable opinion of the Standing Committee on the Food Chain and Animal Health (comprising representatives of the Chief Veterinary Officers of the Member States). Approvals may cover all or parts of a Third Country, reflecting the animal and public health situation and the nature of the animals/products for which approval is sought.



## 4.2 Organic Certified Honey and its Requirements

As illustrated in the chapter “The Honey Market in the EU”, the expanding market niche of organic honey creates a good market access opportunity for third countries who want to export honey to EU, especially for countries like Nepal, where the Himalayan honeys are perceived as pure and exotic. Organic honeys also command a price premium of 10-30% over conventional honey depending on the types of honey produced.

In addition to market opportunity and price premium, organic honeys could directly be imported into EU without the approval as a candidate in the Third Countries List if the products meet the EU organic requirements. This means organic honey producers who have already the potential to export, could directly do so without going through the hassle of governmental bureaucracy, which may be time consuming.

### EU Organic Honey Requirements

The production of organic honey is covered by the Regulation 2092/91<sup>12</sup> which states the characteristics of the hives' treatments and the quality of the environment, the conditions for extraction, processing and storage of beekeeping products, and systematic documentation. Organic products from both EU and non-EU countries are also subject to compliance of rules that are set out in Regulation (EEC) No 2092/91 and Regulation (EC) No 834/2007 on organic production and labelling of organic products to enable such products to be sold in EU. Upon successfully certified by a Third Party Control Body, the organically produced honey could be prepared for export. *Figure 9* briefly describes the production system and requirements for organic beekeeping.

Besides complying with the organic regulations, imported organic products must also obtain a Health Certificate which is a minimum mandatory requirement for all import goods in the EU. Importers of organic products must also register with a control body or a control authority. All consignments of organic products imported from countries outside the EU, excluding the European Economic Area and Switzerland, must be accompanied by a Certificate of Inspection (see *Annex 8*). This certificate can be issued by:

*Organic honey could be directly exported without being a candidate of the Third Country List*

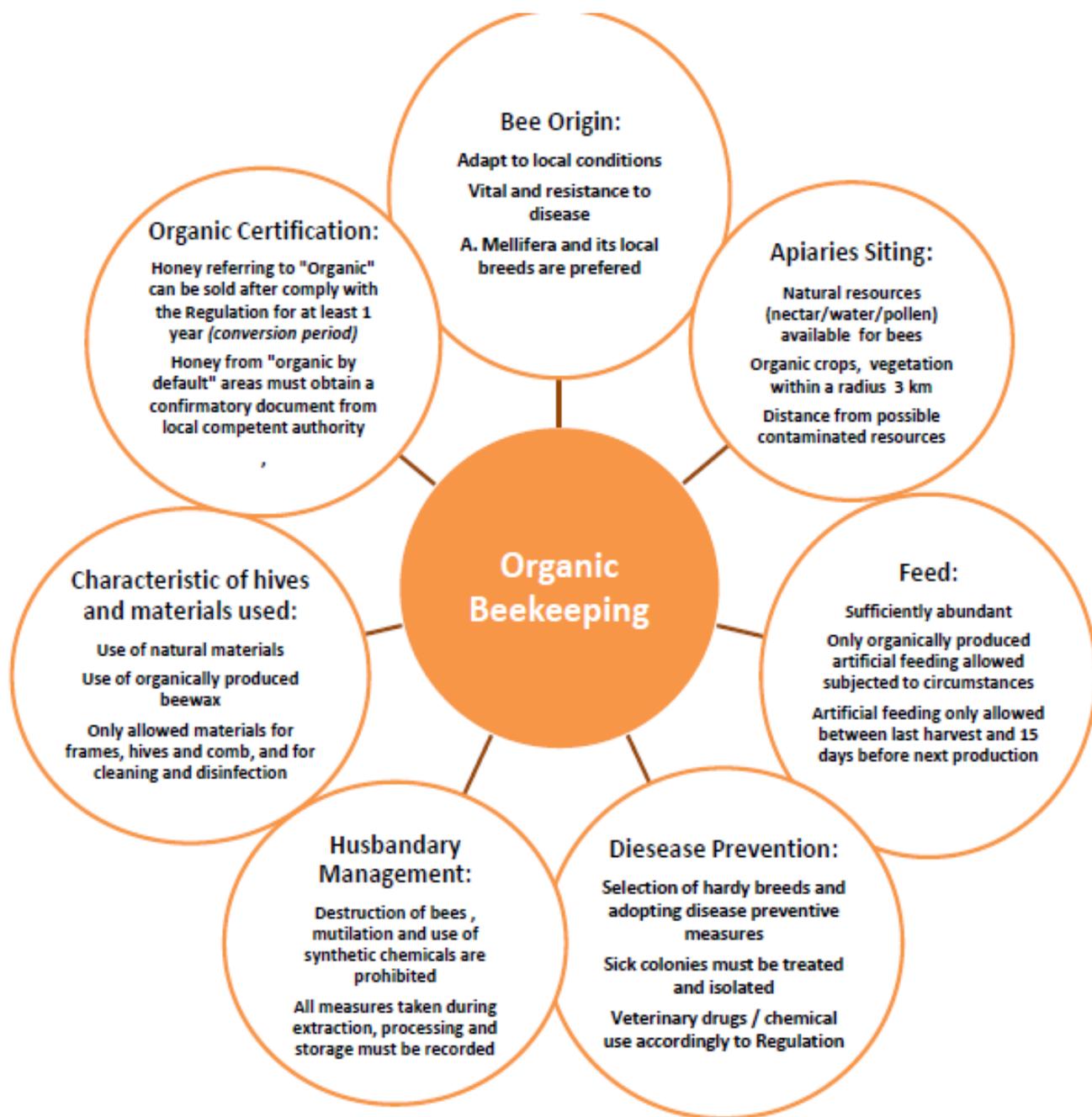
- a control body recognized by the EU
- the control authorities or control bodies authorized by a country recognized by the EU
- the control authorities or control bodies authorized by the competent authority of the authorizing Member State, in case of import authorization

<sup>12</sup>EU Commission DG Agriculture and Rural Development. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1991R2092:20060506:EN:PDF> (page34-37)

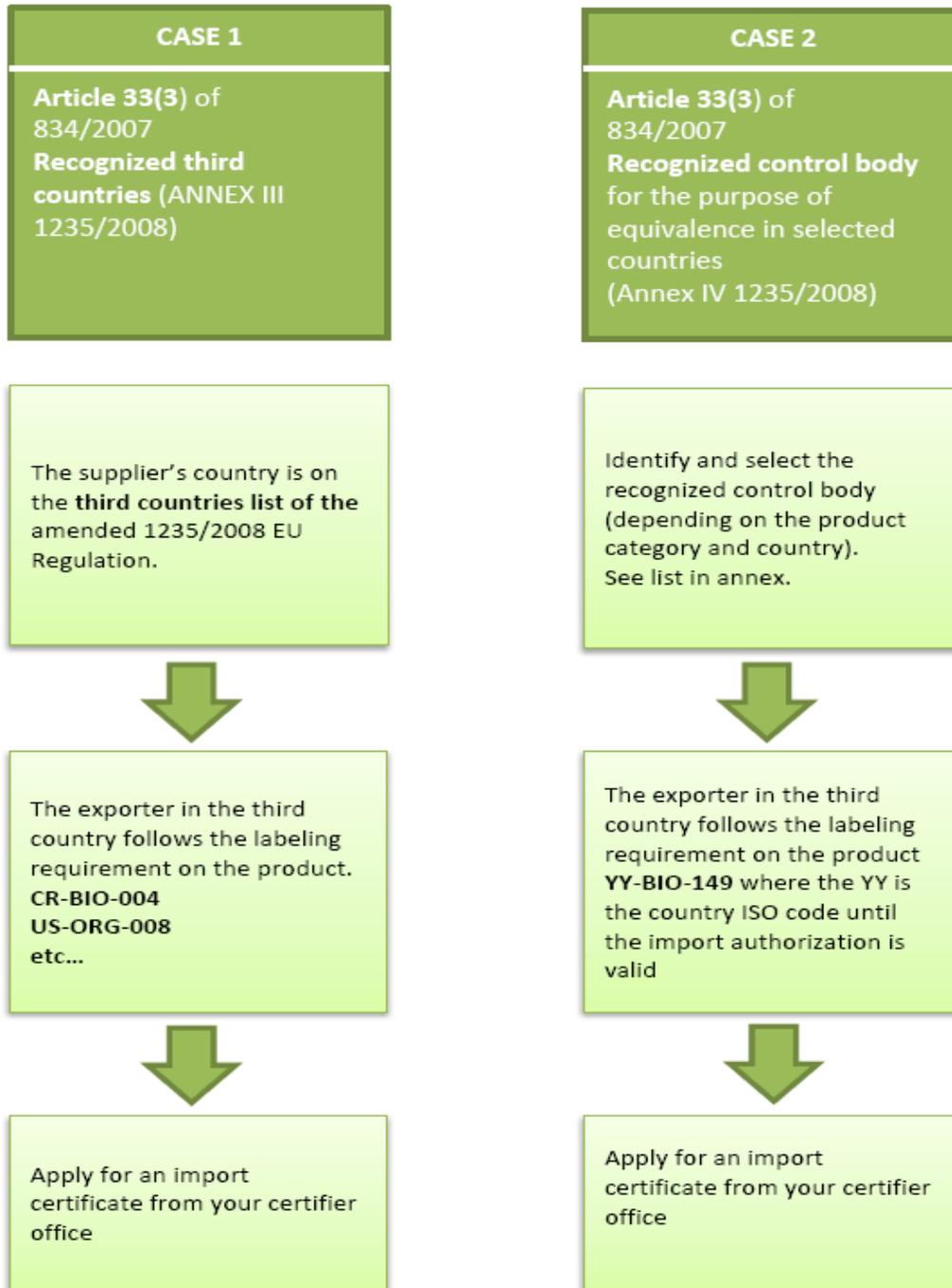
The original Certificate of Inspection must be presented together with the imported organic products to the relevant Member State's authority (e.g. local authority at the port of arrival). After validation of the certificate, the products can be released for free circulation in the Union. The European Union has equivalence arrangements with several third countries to facilitate the exchange of organic products as set by Commission Regulation EC 1235/2008 Article 33(3). These arrangements enable European consumers to choose from a wide range of organic products whilst providing export opportunities for EU producers. The recognised equivalence agreement countries are: Argentina, Australia, Canada, Costa Rica, India, Israel, Japan, New Zealand, Switzerland, Tunisia and the United States of America as well as members of the European Economic Area (Norway and Iceland).

On the other hand, The European Union has also accepted control authorities or control bodies for certifying organic production outside the Union according to equivalent production rules. These control authorities or bodies are authorized to issue documentary evidence attesting that the organic products and organic operators comply with organic rules equivalent to those of the EU as well as certificates of inspection for export of organic products to the EU. Therefore Third Countries who wish to export organic products into EU could select and apply to the control bodies for such purpose. As Nepal is not part of the Recognized Third Country Equivalence Agreement, the certificate of inspection can only be issued by an accredited control body that is approved by EU for the products and country. At present only one control body (namely Control Union which is based in Netherland) is approved by EU for certifying organic honey production in Nepal.

**Figure 9:** Elements of Organic Beekeeping



**Figure 10:** Procedures for export organic products into the EU from non-EU countries



NOTE: In the case of Nepal, Case 2 is referred. **Control Union** (of Netherland) is identified as the only recognised control body for Nepal.

### 4.3 Health Certificate

Food safety is a legal requirement within the EU which is regulated by the EC Regulation 853/2004. It is laid down by the EU rules that EU importers are responsible for the food originating from other countries is safe when it is placed on the EU market. Hence, the importers will require and expect that their food suppliers have production methods in place that guarantee food safety at every stage of production. In addition, as part of EU import requirement which applies for both market access options (i.e. Third Country List and Organic Certified), the submission of Health Certificates (see *Annex 9*) at the port of entry is mandatory. The attestation requires the implementation of food safety measures that are assessed by the Competent Authority in accordance to the HACCP principles. The Health Certificate is issued after the results of the assessment report are satisfactory. An example for an assessment report is attached as *Annex 10*.

### 4.4 HACCP – Hazard Analysis Critical Point

HACCP is an assessment tool that can assure food safety. It is a preventive approach to food and pharmaceutical safety that identifies potential physical, chemical, and biological hazards in production processes and designs measures to reduce risks to safe levels. HACCP is concerned with preventing hazards rather than inspecting finished products.

Honey is classified as an animal product by the EU. Honey however is considered an extremely “safe” food when compared with other animal products such as milk or dead fish. Honey naturally resists microbial activity and it can be kept for a long time without refrigerator. The main human health hazards associated with honey are chemical contamination (which can be derived from unclean equipment, contamination from cleaning chemicals and toxic substances present in the honey factory) and physical contamination (such as nuts, bolts, nails, broken glass, dust, debris, insects, pieces of wood). Sensible care and common sense can avoid these hazards.

It is important to understand that HACCP is used to control and manage significant hazards and not every day or general hazards. Therefore, HACCP does not cover very basic hygiene practices such as hand washing and general cleaning. It is assumed that all countries that aspire to export food products to the EU have their own national regulations about the hygiene and handling of food products, and it is imperative that honey exporters adhere.

#### Legal basis - Obligations for EU buyer

#### [EU Regulation \(EC\) 853/2004](#)

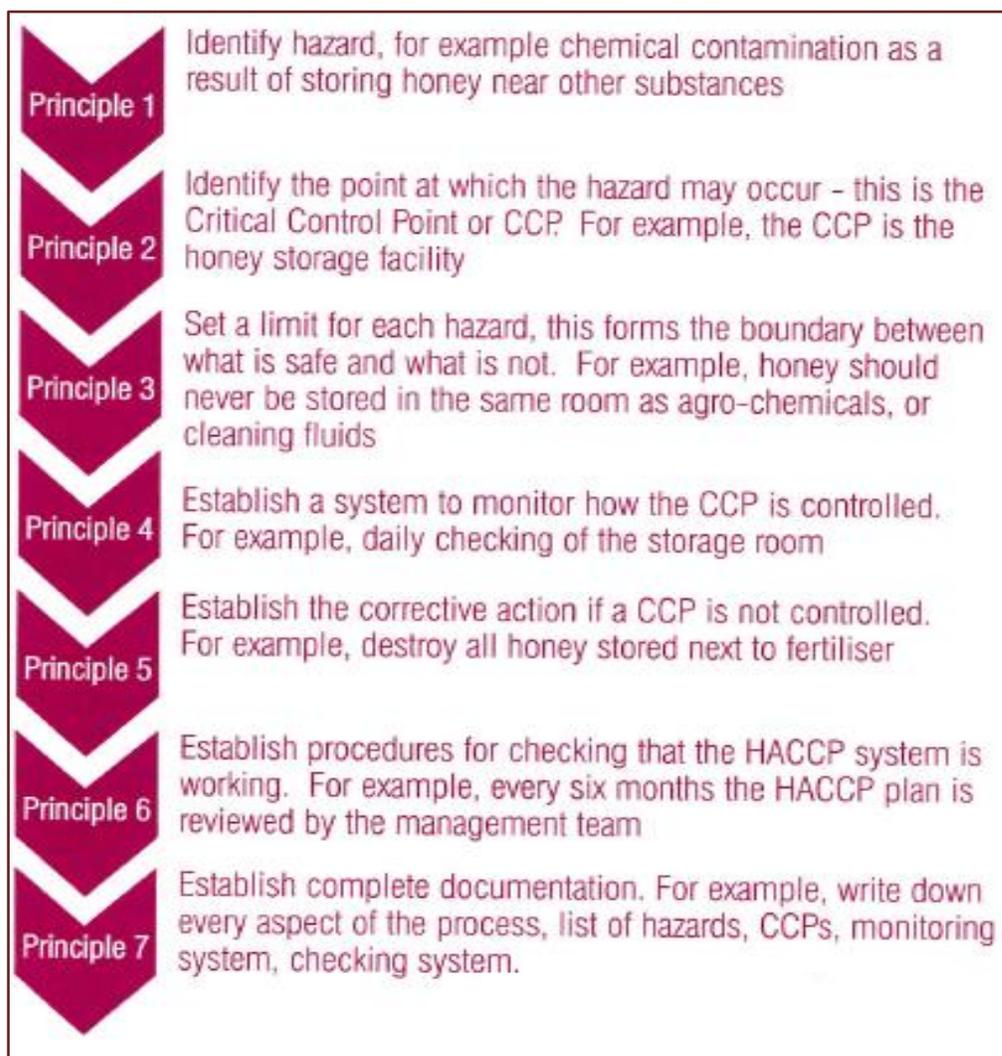
defines the hygiene procedures for food at all stages of the production process, from primary production to sale to the EU consumer (so-called “from-farm-to-fork approach”). At all stages, the person/organisation responsible for the food must make sure to lay down hygiene measures. Permanent procedures should be based on the HACCP methodology which assures that hygiene targets are achieved. Governmental agencies responsible for food safety in the EU (“food safety authorities”) control if the aforementioned food business operators indeed practice the hygienic procedures as described in the Regulation.

## The HACCP Plan

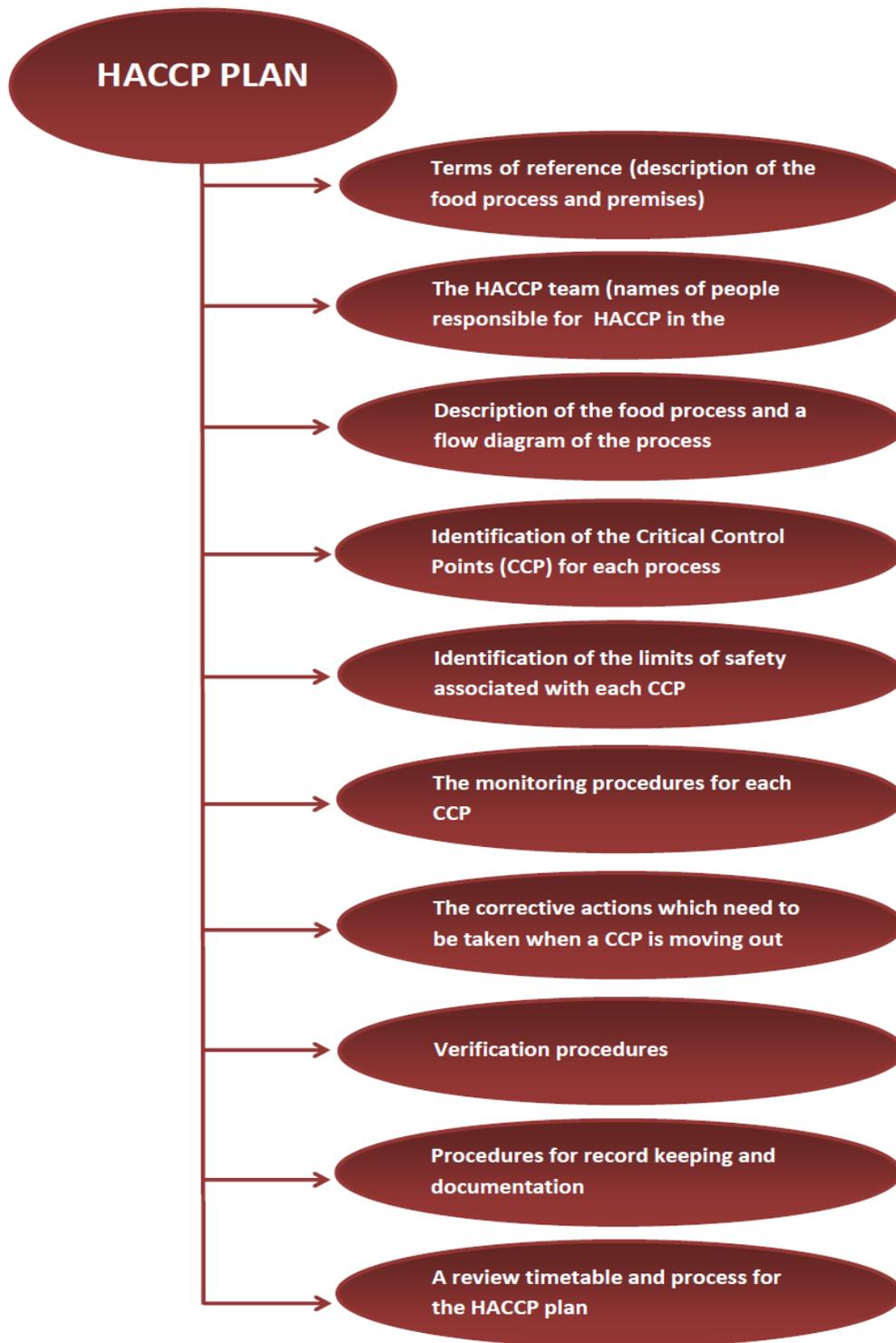
The HACCP plan sets out how the HACCP process is implemented in all food processing premises. Some food safety authorities provide templates or forms, which can be used to develop a complete HACCP plan. For the beekeeping sector, a HACCP plan could be applied but it is not an EU requirement.

However, other safety assurance processes apply to primary production. The supplier and the supply system may be covered within the HACCP plan of a honey buyer. For example, the purchase of honey may be set as a CCP and maybe controlled by a company that decides to buy honey only from approved beekeepers - those whom they know follow the proper apiary management practices. Therefore it might be useful to ask statutory food safety authorities for templates or ask your EU buyer for an example of the template that they use. *Figure 11* summarizes the HACCP principles for beekeeping and *Figure 12* illustrates the key elements of a HACCP plan.

**Figure 11:** HACCP Principles for Beekeeping



**Figure 12:** Structure of the HACCP Plan



## Chapter V: Lessons Learnt from the Honey Sectors of Ethiopia and Uganda

This chapter describes how the honey sub-sector in the two African countries, which had no export experience of honey to the international market prior to the year 2005, developed themselves as honey exporters from non-EU countries.

### 5.1 Ethiopia's Honey Sector

Since 2002 three African countries have successfully managed to transform their honey sector, namely Zambia, Uganda and Ethiopia. The central issue of their sector development strategies was the introduction of international quality standards and food safety regulations which allowed them to become a member of the EU Third Country List. Today there are recognized suppliers for high quality organic and fairtrade table honey to the EU and other developed markets. Honey production and productivity has been increased too. Nepal's honey sector can tremendously benefit from the experience – both the successful interventions as well as the challenges- of these countries.

The most important strategies to fulfil the EU import requirements for Third Country Listing of these countries were:

- Selection and clear definition of the responsibilities of the Competent Authority which was provided with sufficient resources
- Revision of the National Apiculture Policy and honey standards
- Formulation of the Standard Operating Procedures
- Establishment and empowerment of a National Apiculture Development Board/Association
- Setting up national analytical laboratories
- Consequent focus on certification: organic, fairtrade , HACCP, ISO standards
- In general, strong commitment, active cooperation and organization of all honey stakeholders as the Government, private sector and the development organizations In Ethiopia

In Ethiopia an action plan was produced and “Honey Quality Working and Value Chain Coordination Groups” were established, which oversaw the application process. One international and three national specialists were assigned to assist the process. The entire procedure was also assisted and funded by international development agencies; however the main driving power came from the private sector. The strong commitment, motivation and innovation of an export company was crucial to motivate the entire sector and building the linkages with the European importers. It was helpful to include test results of samples analysed by an accredited laboratory already during the application phase for the RMP.

Beekeeping has been practiced in Ethiopia for centuries and currently the country is a leader in Africa in terms of volume of honey and waxes produced and traded. It is an important non-agriculture activity that is highly complementary to agricultural and horticultural production involving 1.4-1.7 million beekeepers. The bulk of honey produced was destined for the local market to be used in Tej, the traditional Ethiopian honey wine. According to the Central Statistical Agency (CSA 2010/2011) the annual total production of honey accounts for 53,000 tonnes. This amounts to only 8.6% of the total potential national production<sup>13</sup>.

In 2005, Ethiopian beekeepers were producing only relatively small quantities of high-quality table honey. The chairman of the “Honey and Other Bee Products Value Chain Coordination Group” approached SNV for assistance in registering Ethiopia on the EU Third Country List. In 2007, the accreditation process began and after approximately 11 months, at an overall cost of about € 20,000, which included residue analyses (costs about € 12,000), Ethiopia was accepted as a candidate in the list.

The consultant interviewed various stakeholders in Ethiopia, e.g. honey associations (Ethiopian Apiculture Board), donor organisations (GIZ, SNV) as well as honey processors and exporters (e.g. Beza Mar Agro Industry: <https://www.youtube.com/watch?v=kom6Duq2pdk>).

Strategies and activities which lead to the success can be summarized as follows:

- Selection and clear definition of the responsibilities of the Competent Authority which was provided with sufficient resources
- Revision of the National Apiculture Policy and honey standards
- Formulation of the Standard Operating Procedures
- Establishment and empowerment of a National Apiculture Development Board/Association
- Setting up national analytical laboratories
- Consequent focus on certification: organic, fairtrade , HACCP, ISO standards
- In general, strong commitment, active cooperation and organization of all honey stakeholders as the Government, private sector and the development organizations In Ethiopia
- Skills improvement training for beekeepers aimed at increasing the production of quality honey
- Establishing a business innovation fund to 349 out growers
- Provision of technical support to beekeepers and producer organisations
- An international conference “Developing business in bee products”, hosted in Addis Ababa by the Ethiopian Honey and Beeswax Producers and Exporters Association on January 16-18, 2007.
- A side event “Ethio-Millennium Agro Industry Fair”, also hosted by the Ethiopian Honey and Beeswax Producers and Exporters Association (Addis Ababa, January 16-20, 2007).
- The presentation of Ethiopian specialty honeys at the International Slow Food Fair in Stuttgart, Germany (June 14 -16, 2007).

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<sup>13</sup> SNV, 2012. Innovations in scaling honey value chain in Ethiopia.

- SNV and its partners Ethiopian Apiculture Board (ETB), Triodos Facet and Profound developed a 5 years up-scaling programme, called ASPIRE – “Apiculture Scaling-up Programme for Income and Rural Employment

## Achievements

- More than 8000 honey producers were trained and produced high quality honey (2011).
- Beza Mar Agro Industry became the first processor to export table honey to the EU, increasing its share of organic table honey exports from 30 tonnes in 2008 to about 400 tonnes in 2014.
- Between 2008 and 2010, six honey processors exported 400 tonnes of Ethiopian honey, mainly to the EU
- The commitments with a number of EU companies created income opportunities for more than 10,000 producers.
- Processing costs at Beza Mar went down by 0.36 US\$ per kg due to improved production technologies and efficiency.
- Currently new markets are accessed (USA, Japan) and up-scaling measures are introduced (export of labelled honey jars).
- New de-centralised processing centres will be established in 2015.

## Challenges in Ethiopia

After several years of successful sector development and export, there had been some crisis too. A case of honey adulteration was discovered, resulting in a serious warning from EU authorities. Also some of the exporting companies refused to pay their shares for the certification fees.

## Lessons learnt for Nepal

For Nepal this means to consider the inclusion of contractual procedures for a stepwise reduction of subsidies and regulatory procedures which deal with cases of violating common agreements. Detailed recommendations are compiled in *Section 7* “The Nepal Honey Road Map”.

## 5.2 Uganda’s Honey Sector Development

Like in Ethiopia bee farming in Uganda is an important seasonal activity that has predominantly remained rudimentary and unexploited, yet it has tremendous potential for widening Uganda’s export base. The majority of beekeepers in Uganda are small scale producers mainly using traditional hives and indigenous management practices to maintain their bee colonies. It is estimated that there are about 2 million hives in Uganda 87% of which are traditional log hive

with about 66% of them getting colonized per season<sup>14</sup>. Production of table honey prior to year 2005 was estimated around 580 tonnes and bee wax was about 24 tonnes per annum. Realising the potential of Uganda to export 500,000 metric tonnes of honey per year, the Uganda government through relevant ministries, private sector and Office of the Prime Minister had initiated to reorganise the industry. Consequently, an umbrella body, The Uganda National Apiculture Development Organisation (TUNADO) has been formed and is recognised by the National Apiculture Policy (NAP). TUNADO is empowered to coordinate and act as a central link between the private sector and government agencies working on the sector.

In 2005, Uganda was accepted as a candidate of the EU Third Country List for exporting honey after successfully implementing National Residue Monitoring Plan. Since then Uganda is exporting honey and bee products to the EU, USA, Japan and South Africa. At present, Uganda is estimated to be producing 5,000 Metric Tonnes of honey annually and of this production volume, only 1,800 metric tons are of exportable quality. It is estimated that over 1,200,000 beekeepers are active in Uganda and an estimate of over 700,000 colonized beehives countrywide.

### **Strategies and Steps taken**

In order to achieve its goal to enter the international market and to alleviate poverty by increasing the household income through apiary industry, following strategies and steps have been taken by the beekeeping stakeholders in Uganda in 2004 – 2005 to fulfil the EU import requirements for Third Country Listing:

- Establishment of a National Residue Monitoring Plan
- Recognition of the Department of Livestock Health and Entomology (MAAIF) as the competent authority
- Development of a apiculture policy and revision of the honey standards
- Formulation of the Standard Operating Procedures
- Establishment and empowerment of The Uganda National Apiculture Development Organization (TUNADO)
- Setting up of two national analytical laboratories, i.e. Chemiphar that has international accreditation for honey and the Uganda National Bureau of Standards (UNBS)
- Setting plans to make the sector commercially viable to export 50% of the estimated annual production
- Development of specific interventions to accelerate the growth of the sector such as:
  - Strengthening the policy environment
  - Sector reorganisation for improved production
  - Modernization of production systems
  - Investment Promotion
  - Establish and maintain quality assurance programmes

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<sup>14</sup> Kilimo Trust, 2012. Development of Inclusive Markets in Agriculture and Trade (DIMAT): The Nature and Markets of Honey Value Chains in Uganda.

- Export promotion

Besides adopting the strategies above, the existing internal factors in the subsector also helped to boost the development. They are:

- Strong linkages and integration along the chain between local artisans and producers, producers and retailers and processors and retailers.
- Availability of local artisans to supply affordable improved bee hives and practices
- Availability of a significant number of large off-takers/players in the sub-sector that can facilitate efficient access to markets (domestic and export)

## Achievements

The below points summarise what have been achieved by the honey subsector after a decade of interventions carried out by the relevant stakeholders:

- The Government of Uganda has two statutory instruments (SIs) on Apiculture:
  - The Animal Diseases (Declaration of Bees as Animals) Instrument, 2004. No.72;
  - The Animal Diseases (Control of Bee Diseases) Instrument, 2004 No. 73: The National Residue Monitoring Plan (NRMP) for honey
- Uganda is recognised as a candidate of EU Third Country List (2005 till present)
- Increase of honey production from 580 tonnes (2005) to approximately 5000 tonnes (2012)
- Increase of export volume to international market from 30 tonnes (1995) to 1800 tonnes in 2012
- The Uganda National Apiculture Development Organization (TUNADO) is the lead agency coordinating all activities of organizations and individuals keeping bees and producing honey and other products
- Tested and relatively affordable technologies (improved bee hives) are available for bee keepers
- Existence of two companies dealing with packaging materials for honey

## Challenges

Although the sector has shown much progress in the past decade, there are challenges for the Uganda honey sector to overcome. Following are the challenges identified:

- Slow implementation of the National Apiculture Policy
- Weak enforcement of standard rules and quality assurance systems results in mistrust
- Limited mechanisms for coordination and information sharing among organizations and partners supporting the value chain
- The bureaucracy at UNBS for certification has resulted in difficulties for producers and processors to obtain the certifications

- The unstructured trade system and standards has led to side-sellings by some beekeepers
- Weak linkages with extension services and research and development.
- The technology brought by the development agency is not locally adapted
- Limited number of extension workers to disseminate updates and information in the sector
- Low level of private sector investment in medium to large scale beekeeping, particularly in commercial production, value addition, packaging materials and sector promotion

### **5.3 Lessons Learnt (Ethiopia and Uganda)**

Reviewing the achievements gained and challenges faced by both Ethiopia's and Uganda's honey sector, the following points are considered recently:

- Build and strengthen an evidence-based multi-actor platform for advocacy. For example more support for speedy certification, enforcement of standards and support for human resources
- Quality enforcement and adherence
- Develop a structure trade by strengthening the linkages between producers, processors and developing a marketing brand to avoid site selling
- Develop and strengthen value chains institutions in good governance
- Development of improved technologies that are locally adapted
- Development of efficient dissemination of market updates and information about new technologies
- Good coordination among the organisations and development partner agencies that facilitate in the sector

## Chapter VI: Conclusions and the “Nepal Honey Road Map”

### Accessing the “Giant” EU Market

There are two options to access the EU honey market for countries outside the EU, namely

1. being a candidate in the Third Country List and/or
2. the export of certified organic honey.

From the review of the EU requirements for the Third Country List, the non-EU countries would need to ensure that its legal provisions such as legislations, standards and policies regarding food safety, animal production systems, hygiene practices etc. are equivalent to the ones of the EU. It is mandatory for the non-EU countries to submit a Residue Monitoring Plan (RMP) annually which requires a clear and detailed documentation along the supply chain. Details of the RMP and further requirements such as labelling, packaging and traceability documentation can be obtained through *Chapter 4*.

The second option to enter the EU market is through the export of certified organic honey which complies with the EU organic requirements. The honey production system for this option would be based on organic standards which are recognised by the EU and audited by a third party control body. For Nepal, the company Control Union, which is based in the Netherlands is currently the only approved certification and control body to certify organic honey from Nepal.

It is also to be noted that for both options, a Health Certificate is required at the entry port to prove the honey production system is at least in accordance with the HACCP principles.

### Opportunities and Gaps

The SWOT analysis has pointed out that Nepalese honey has a good potential (see strengths and opportunities) to access the EU honey market. The main barrier to the export lies in the country’s lack of accredited laboratory testing facilities. A temporary solution may be the use of neighbouring countries’ laboratories such as in India or even testing at European labs. This may increase the costs, but could solve the problem in the short term. In addition to that it is timely for the government of Nepal to upgrade its food safety legislations and food standards to be on par with the international standards. Such approach would give an assurance to the importing countries on the quality of the products. Besides, it will help to gain trust from both domestic and international consumers.

The most appropriate way to export Nepalese honey is to cooperate with specialised and experienced importing firms that either are experts for “pioneer supply structures in developing countries” and/or are focused on organic or fairtrade business structures.

## 6.1 The Nepal Honey Road Map

The Nepalese honey sector needs to be prepared for the competition on international level. The following list provides an overview of possible intervention areas.

### Upgrading the National Policies

In order to enable honey to be marketed in international markets in particular the EU, it is a critical need to expedite and upgrade the policy formulation process. Following interventions could speed up the process:

- Upgrade the national honey quality standards to be on par with the EU honey standards.
- Review of national policies related to food safety, human and animal health and export which is necessary to ensure that the legal provisions and standards meet the EU requirements.
- Step-up the enforcement of food safety monitoring along the supply chain.
- A mandatory for all food producers and processors to implement food and health measures according the HACCP guidelines or the ISO Standard 22000:2005.
- The Competent Authority together with the National Federation of Nepal Beekeepers shall establish a national bee/honey advisory one-stop centre. Such a centre will among others seek to enforce uniform standards and best practices within the sector.

### Establishment and Maintaining Quality Assurance Programmes

The existing National Residue Monitoring Programme for honey needs to be developed further. A Health Hazards Prevention Programme is in need to be implemented at any stage in the food chain. Clear guidelines for each implementing institution and adequate controls should be in place. It is also important that an efficient monitoring programme is developed to provide a guarantee not only for the export countries' consumers but also for domestic consumers. The monitoring activities should include:

- Disease control and sampling procedures as per Good Hygiene Practice, Good Manufacturing Practice and HACCP
- Records about traceability, permitted chemicals, etc. should be kept from the source of production.
- Strict implementation of the Residue Monitoring Plan.
- Deployment of skilled inspectors to ensure quality and safety of products at all critical points along the supply chain.
- Empowerment of officers of the Competent Authority to draw samples from the various honey collection centres, honey processing units, and designated laboratories to verify the analysis data and take appropriate action in case of non-compliance in the drawing of samples or testing of honey.

- Further steps should be taken to upgrade the laboratory facilities with latest technologies. This would help to obtain the accreditation by an international body.
- The methods of AOAC, Codex Alimentarius and other internationally recognised methods must be adopted and uniform measurement techniques should be developed.
- Regular trainings to personnel resources (laboratory technicians) about safety issues, new requirements for residues, standards and updates of global food safety and health issues should be undertaken.
- Develop and upgrade refineries, quality control units and storage facilities

### **Baseline Assessments**

- Defining and identify the honey route which includes the documentation on the geographical and botanical origin of the honey.
- Profiling existing and potential producers, processors and exporters in the supply chain.
- National assessment and identification of beekeeping farms. Filing geographical information and production data (bee populations, production volume, kind of honey, potential for organic/fairtrade certification, existing processing technologies, human and financial resources, infrastructure and other socio-economic parameters).

### **Organization, Linkages and Networks**

- Establishing networks at national level. This network could include private organisations such as processors, potential exporters, progressive beekeepers, scientists, and official members from line departments.
- Supporting the organizational level of farmers. Providing extension service for farmer groups, associations and cooperatives. Establishing and training specialized farmer organizations e.g. for export, organic or fairtrade certification and marketing.
- Establishing business relations and linkages with development finance institutions that could provide finance and credit arrangements to producers to enable them to acquire equipment and technologies

### **Establishing Private-Public-Partnerships (PPPs)**

- Identifying potential producers, cooperatives/processors and exporters that are willing to improve their production systems for export
- Support for exporters and producers in export financing, trade fairs, distribution channels
- Support for market research, B2B linkage and visit programmes and trade missions

## Education and Awareness Programmes

The need for producer education/awareness is of utmost importance. Capacity development programmes could include topics like:

- Information about production technologies like controlling HMF, moisture content, the use of antibiotics, storage and transportation conditions, exposure to high temperatures, etc.
- Awareness activities and lobbying directed towards policy makers and legislators over the importance of the apiculture sector and its impact on poverty alleviation in the country.
- Training farmers into the use of modern equipment for production and handling at all levels of the value chain
- Training farmers about management and book keeping methods
- Training beekeeping stakeholders on traceability documentation and good hygiene practices

### 6.2 Recommended Next Steps (Action Plan)

The goal for the “next steps” is to achieve an agreement with the EC for being accepted for the Third Country List for Honey Imports at the end of 2015. The major steps could be:

1. Initiation Workshop (at least one day). Schedule: End of March 2015
  - Definition of the task force: organisation, members, responsibilities, action plan, time lines , etc.
  - Presentations about the status quo from the line departments
  - Clarification about the structure and content of the application: NRMP / formal request to EC / pre-mission questionnaire
  - Gap-analysis: Identification of the weaknesses and bottlenecks (SWOT).
  - Institutional assessment: Condition of the laboratory, HAPCC, etc.
  - Critical assessment of the honey supply chain
  - Addressing the traceability and quality issues
  - Reviewing food safety and health related legislations and standards
  - Identifying the tasks and responsibilities of the “Honey Export Support Group” (donors, consultants)
  - Recommend solutions and the way ahead
2. Sending the formal request for the NRMP to the EC. Schedule: End of March 2015
3. Prepare residue analysis (at least 10 samples to send to an accredited laboratory in India or Germany). Schedule: End of March 2015
4. Sending the pre-mission questionnaire and the draft NRMP. Schedule: End of April 2015
5. Implementation of necessary improvement measures (see the chapter “Nepal Honey Road Map”). Schedule: April to November 2015

6. Design and implementation of process supporting projects (see chapter “Project Innovations” below). Schedule: April to November 2015

## Export Support Group

While being in Nepal the consultant visited potential donors/supporters who might be interested to be a member of the Honey Export Support Group. The list of the contacted organisations is shown in

*Table 12.* It is recommended to address also other organizations like UKaid, SDC Switzerland or MEDEP. It is also suggested to include those organisations into the invitation database for the next interactions /workshops of this programme.

**Table 12:** Potential Members of the Honey Export Support Group

ID	Organization	Description	Contact	Email
1	SNV Nepal	RESUME grant programme (a cooperation with INCLUDE is already established)	Mr. Piet Visser (Senior Advisor Value Chain Development) Mr. Padam Bangdari	pvisser@snvworld.org
2	Multi Stakeholder Forestry Promotion (MSFP) Nepal	Involved in value chain development for honey in some districts	Mrs Stuty Maskey (to be replaced by Dr. Kalyan Gauli end of March 2015)	s-maskey@msfp.org.np
3	Gandaki International Pvt. Ltd.	Honey processor and exporter	Mr. Bhusan Das Shrestha Executive Business Manager	Bhusanshrestha100@hotmail.com
4	ICIMOD Nepal	Previous advisor for the NRMP project in 2008	Dr. Surendra Raj Joshi	Surendra_joshi@icimod.org

## 6.3 Project Innovations

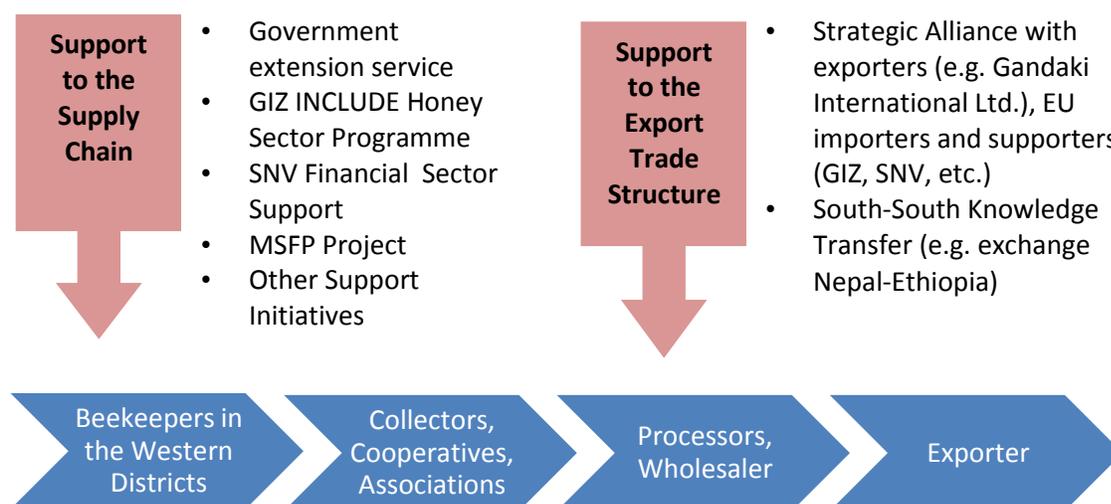
The application for the Third Country List and its implementation also needs supporting measurements which could underpin the improvement process and can lead to more efficiency and sustainability of the project. Some project innovations are briefly described herewith:

## Initial Pilot Project “Link to Nepal Honey Export”

Besides an optimized institutional structure for food safety and hygiene and improved test facilities, a well-organized and reliable honey supply structure is equal important for the export.

Various programmes are currently undertaken to support the local, regional and national honey value chain. Together with their counterparts, GIZ-INCLUDE and the organizations mentioned in *Table 12* are implementing honey support activities in various Western districts, i.e. the distribution of thousands of bee hives to poor farmers. The production of those newly introduced bee hives can substantially add to an initial honey shipment to the EU. The proposed pilot project will be based on this ground work and links the production facilities with honey processors, wholesalers, exporters and importers from the EU. The goal is to ensure sustainable supply quantities and to secure the product quality after the export linkages have been established. Due to the complexity of the support activities, an intensive cooperation and coordination among the support group has to be established. A good example is the cooperation of GIZ-INCLUDE (technical support) and SNV (financial support) for the honey production development in Western districts of Nepal. *Figure 13* basically shows some key elements of the “Link to Honey Export” project.

**Figure 13:** Support initiatives linking honey producers with exporters / EU importers



## South-South Knowledge & Skills Exchange Programme

This study found rather good pre-requisites for a South-South exchange programme between developing countries with experience in international honey trade (e.g. Ethiopia or Uganda) and Nepal. “Learning from others” could be very fruitful for both sides due to “structural similarities” of their honey sectors. All stakeholders surveyed in Ethiopia showed substantial interest in a “Strategic Regional Honey Project”. The programme could include the organisation of workshops and field visits joined by Ethiopian experts (e.g. from the Government and the private

sector) in Nepal, as well as a study tour for Nepal stakeholders to Ethiopia. To discuss possible co-operations, it is recommended to approach GIZ and SNV in Addis Adaba directly.

## **Certification and Biodiversity: The Organic / Fairtrade Pilot Project**

Labelling and certification of honey is playing a crucial role in the EU. In particular organic and fairtrade labelled honeys are high in demand. Experts predict a 50 to 90 % share of certified honey in the mid and long-term. The public discussions about the degrading biodiversity, environment pollution through intensive agriculture and food contamination is boosting this development. Following this trend Ethiopia exports only organic (and partly fairtrade) honey to the EU.

Therefore Nepal should be prepared and develop “alternative and green” honey value chains as early as possible. A good organic potential has Chiuri honey, which is mainly harvested in the mid-hill regions where the application of agrochemicals is still low. However, organic honey can also be produced at selected locations in the Southern districts. Recently Organics International (IFOAM) and Fair Labelling Organisation (FLO) have developed certification schemes which are adapted to smallholder farming in developing countries. The project will also consider the (side) effects on the biodiversity when promoting *Apis Mellifera* bee hives. The bee species was introduced in Nepal only a few years ago.

In a first step of the project it is recommended to carry out a feasibility study, which also includes an analysis of previous experience with organic certification, i.e. the certification efforts undertaken by Gandaki International Pvt. It also will build on the results from research activities undertaken by GIZ-INCLUDE as well as other support organisations like SDC, MEDEP and ICIMOD.

## **Nepal Honey Label**

Nepal honey enjoys a good international reputation. However this is endangered due to an increasing number of cases of adulterations which causes a decrease in product quality. The main reason is the often illegal import of cheap honey from India and China via the green borders to Nepal, where it is often blended with local products. A honey label, which ensures the origin and the quality of the product, could help to build trust and distinguish from fake products. The label will include a logo or hologram which can be used as a marketing tool.

## **The Nepal Honey 4-Pillars Approach (NH4P)**

A well-established honey sector consists mainly of four pillars:

1. The private sector: Bee keepers, marketing or commercial associations and cooperatives, wholesaler, processors, exporters. The main tasks are:
  - Production and marketing
  - Capacity development and finances

- Quality assurance
2. Local bee keeping groups, informal associations on local and district level. Tasks are:
    - “On-top” production
    - Routine quality control and analysis
    - Insurances and social “maintenance”
    - Youth education and training
    - Publications and PR work
    - Lobbying and advocacy
  3. A functioning institutional structure
  4. A well-developed R & D structure , e.g. Bee Research Centers

In Nepal there is a lack of informal bee keeping and marketing structures as well as institutional and commercial R & D infrastructure. This project addresses the weaknesses mentioned mainly under item 2) and 4) and build up a balance among all four pillars.

#### 6.4 Strategy Matrix Template

This or a similar strategy matrix template can be used for planning and monitoring the interventions and activities while preparing the export strategy.

<b>Intervention Area</b>	<b>Key Actions</b>	<b>Implementing Institution</b>	<b>Timeline</b>	<b>Budget</b>
Strengthening and upgrading policies	<ul style="list-style-type: none"> <li>○ Upgrade and review policies and standards</li> <li>○ Enforcement of standards and policies</li> <li>○ National bee advisory one-stop centre</li> </ul>			
Establishing and maintaining quality assurance programmes	<ul style="list-style-type: none"> <li>○ RMP and health hazard prevention programme</li> <li>○ Risk alert system</li> <li>○ Strict control system</li> <li>○ Practise traceability</li> </ul>			

	<ul style="list-style-type: none"> <li>○ Empowerment of qualified officers</li> <li>○ Deployment of inspectors</li> </ul>			
Upgrading beekeeping infrastructure in accordance to international standards	<ul style="list-style-type: none"> <li>○ Upgrade the laboratory facilities</li> <li>○ Laboratory methods in accordance to international standard methods</li> <li>○ Regular trainings to human resources</li> <li>○ Upgrade refineries, quality control units, storage facilities</li> </ul>			
Baseline assessments	<ul style="list-style-type: none"> <li>○ Honey route</li> <li>○ Profiling producers, processors, exporters</li> <li>○ Traceability records for raw material procurement</li> <li>○ Existing knowledge of beekeeping</li> </ul>			
Organisation and networks	<ul style="list-style-type: none"> <li>○ Bee-based networks at a national and state level</li> <li>○ Forging close ties with development finance institutions</li> <li>○ Supporting the organizational level of farmers (e.g. for export, organic, fairtrade)</li> </ul>			

	certification)			
Education and awareness programmes	<ul style="list-style-type: none"> <li>○ Producers and processors on good hygiene practice, good manufacturing practice and HACCP</li> <li>○ Traceability practice</li> <li>○ Beekeeping techniques i.e. organic honey production</li> </ul>			
Establishing PPPs	<ul style="list-style-type: none"> <li>○ Identify potential producers, cooperatives/ processors and exporters for PPP</li> <li>○ Export financing, trade fairs, distribution channels</li> <li>○ Market research and trade missions</li> </ul>			

## Chapter VII: Validation Workshop

### 7.1 Background

In February 2013, the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) initiated a two and a half year programme, titled Trade Promotion Programme (TPP), in close cooperation with the Government of Nepal - Ministry of Commerce and Supplies (MoCS) as well as the private sector to implement the Nepal Trade Integration Strategy (NTIS) in a more effective and successful way.

The NTIS prepared by the Government of Nepal (GoN) with the major objective of taking advantage of Nepal's favorable market access conditions has achieved success in improving the coordination with various stakeholders facilitating export promotion activities and mobilising Aid for Trade (AfT) resources. The joint Nepal-German Trade Promotion Programme aims to improve the implementation of the NTIS. The Programme covers three areas of action: (i) strengthening the private sector and business-service providers within the 3 selected export value chains Honey, Medical and Aromatic Plants (MAPs) as well as Silver Jewelry, all three represent priority sectors of the NTIS; (ii) supporting the dialogue between the public sector and the private sector on trade matters and (iii) empowering the National Implementation Unit (NIU) with regard to coordination and fund mobilisation skills.

Despite being a land-locked country, Nepal has promising potential for integrating itself into the global and regional economy. It counts with one of the most favorable market access conditions: its membership to the World Trade Organization (WTO), where least-developed countries (LDCs) are accorded special market access opportunities; its membership to the Agreement on South Asian Free Trade Area (SAFTA); and a bilateral free trade agreement with India. These are further buttressed by duty-free and quota-free export conditions being offered by various advanced developing countries. However, Nepal has been failing so far in converting these potentially attractive market access opportunities to market entry.

Honey is one of the 19 priority sectors within the NTIS with production potential of 10,000 tons; however the actual production is estimated around 1,600 tons only. Honey has an increasing domestic consumption and export destination is currently mainly to India, Bangladesh, China and the Gulf countries. Currently there is only little registered export of honey and hive products to other countries thus large and very attractive markets like the US, the European Union (EU) or Australia are so far not tapped or are neglected.

Looking at the present context, Trade Promotion Programme initiated a study on "Facilitating EU Third Country Listing for Nepali Honey" with the support of an international expert. A half day workshop was organized on February 19, 2015 to share the findings of his study.

## 7.2 Objectives of the Workshop

The objectives of the workshop were:

- To share the findings of the study on Facilitating EU Third Country Listing for Nepali Honey among public and the private stakeholders To create awareness about processes and the steps to be followed for facilitating EU third country listing for Nepali honey
- To validate the findings of the study
- To develop an institutional steering structure
- To develop an action plan for the next steps

## 7.3 Participants of the Workshop

Altogether 21 participants including representatives of both government and private sectors participated in the event. The list of participants is provided below:

**Table 13:** List of Participants

SN	Name	Organisation	Position	Contact no	E-mail
1	Bhusan Das Shrestha	Gandaki Bee	E.B.M.	9803014967	<a href="mailto:bhusanshrestha100@hotmail.com">bhusanshrestha100@hotmail.com</a>
2	Deepak Gyawali	NBSM	Chemist	9841379692	<a href="mailto:gyawalideep@gmail.com">gyawalideep@gmail.com</a>
3	Dr. Peter Richter	TPP	Chief Technical Adviser	5555289	<a href="mailto:peter.richter@giz.de">peter.richter@giz.de</a>
4	Dr. Pradyumna R. Pandey	MoAD	Senior Agri. Economist	9851125554	<a href="mailto:pandeypr4@gmail.com">pandeypr4@gmail.com</a>
5	Durga Bdr. Bohara	CHEAN	Member & Consultant	9803267195	<a href="mailto:dbbohara@gmail.com">dbbohara@gmail.com</a>
6	Durga Dutta Regmi	GIZ	Program Officer	9851152295	<a href="mailto:durga.regmi@giz.de">durga.regmi@giz.de</a>
7	Gajendra Kumar Poudel	DFTQC	Lab. Chief, CFL	9841315563	<a href="mailto:pgajendra@gmail.com">pgajendra@gmail.com</a>
8	Ganesh Dawadi	Freelancer	Rtd. DDG	9841364722	<a href="mailto:ganeshdawadi@gmail.com">ganeshdawadi@gmail.com</a>
9	Jagannath Sharma	DOIED	Industrial Entomologist	9840068256	<a href="mailto:jn_2065@yahoo.com">jn_2065@yahoo.com</a>
10	Jagdish Bhakta Shrestha	DOIED	Program Director	9841268265	<a href="mailto:jagadishbshrestha@gmail.com">jagadishbshrestha@gmail.com</a>

11	Kanchan Kumar Nayak	DFTQC	SFRO	980328689 5	<a href="mailto:kanchan.nayak@yahoo.com">kanchan.nayak@yahoo.com</a>
12	Lekha Mani Dhakal	TPP	Program Officer	985119168 2	<a href="mailto:lekha.dhakal@giz.de">lekha.dhakal@giz.de</a>
13	Maier Judith	GIZ	Intern	986056908 2	<a href="mailto:judith.maier@giz.de">judith.maier@giz.de</a>
14	Mohan Krishna Maharjan	DFTQC	SFRO	984133991 1	<a href="mailto:mkmaharjan@gmail.com">mkmaharjan@gmail.com</a>
15	Nawa Raj Dahal	DFTQC	SFRO	984134259 7	<a href="mailto:nawarajdahal123@gmail.com">nawarajdahal123@gmail.com</a>
16	Poonam Thapa	PTB	SPO	985115967 1	<a href="mailto:poonam.thapa@gmail.com">poonam.thapa@gmail.com</a>
17	Shambhu Bdr. Karki	NBCCU	Member	984177808 5	
18	Rajendra Gautam	FNBK	Chairman	985506487 6	<a href="mailto:gautamrajendra@hotmail.com">gautamrajendra@hotmail.com</a>
19	Saroj Kumar Chaudhary	DFTQC	FRO	984916968 2	<a href="mailto:sarojkchaudhary0007@gmail.com">sarojkchaudhary0007@gmail.com</a>
20	Schuhmann Franziska	GIZ	Trade Advisor		<a href="mailto:franziska.schuhmann@giz.de">franziska.schuhmann@giz.de</a>
21	Klaus Linkenheil		Intl. Consultant	491609924 7005	<a href="mailto:asiapura2@gmail.com">asiapura2@gmail.com</a>

## 7.4 Proceeding of the Workshop

The workshop was divided into two sessions. In the first session, a welcome and introduction of the participants was followed by the sharing of objective and the presentation of the findings of the study. In the second session, there was a plenary discussion and group work for action plan preparation and then the presentation of the action plan. The workshop was concluded with the closing remarks. The agenda of the workshop is provided below:

**Table 14:** Agenda of Workshop

Time	Activity
09:30 – 10:00	Registration of the participants
10:00 – 10:15	Welcome and opening remarks by Dr. Peter Richter, CTA, Trade Promotion Programme Introduction of the participants
10:15 – 11:15	Presentation on findings of the study by Mr. Klaus Linkenheil / questions and answers

11:15-11:45	Group work/Plenary discussion
11:45 – 12:00	Presentations of group work/plenary discussion
12:00 – 13:00	Next steps- Action plan preparation
13:00 – 13:15	Closing remarks by Dr. Peter Richter
13:15	Lunch

### **Introduction and welcome**

In the welcome session Dr. Peter Richter, Chief Technical Adviser of the Trade Promotion Program welcomed all the participants in the workshop. He expressed that the study was carried out to know the pre-requisites for the implementation of Residue Monitoring Plan for Nepali honey to enter the European markets. This study would help to increase knowledge and the awareness level among the stakeholders involved in the honey sector. Being a member of the EU Third Country List would increase the export of high value honey from Nepal. Besides, fulfilling the prerequisites would improve the quality of Nepali honey. He also said that this study provides an overview of successfully implemented honey production programmes in Ethiopia and Uganda. Both countries recently succeeded to enter the EU Third Country List which has boosted their exports. So this information will be very useful for the honey producing sector in Nepal too.

### **Presentation on Findings of the Study by the International Expert**

Mr. Klaus Linkenheil, an international expert who was assigned to carry out the study on Facilitating EU Third Country Listing for Nepali Honey presented his findings. The presentation included the following slides (some of the slides are in report already):



## Workshop on

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# “Facilitating EU Third Country Listing for Nepali Honey”

19 February, 2015  
Hotel Summit  
Kathmandu

Organized by:



Implemented by  
**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

## MAIN TOPICS of the STUDY

- Why Export to EU?
- Nepal's (Export) Honey Sector
- The EU Market, Prices, Importers
- Options for Accessing the EU Markets
- Third Country Listing and Organic Certification
- Residue Monitoring Plan
- Legal Provisions and Production Standards in the EU
- Other Requirements for Export
  - HACCP Standards
  - Traceability
  - Health Certificate
- Lessons learnt from other Countries
- The Honey Road Map
- The Roadmap for Organic Honey





## Why Not Export to EU?

- ✂ The EU is the most difficult market to access
- ✂ *Third Country Listing* is bureaucratic and cost intensive
- ✂ Export Certification includes risks which can lead to de-listing and waste of investments
- ✂ The Nepal honey sector is not yet 'ready' for export adventures
- ✂ There are attractive markets just around the corner
- ✂ Nepal Authorities have more important tasks to shoulder
- ✂ Supply chain is too small in volume, remote and not well organized



## EU Market

- ✂ The EU has only 60% honey self-sufficiency, 40% imported
- ✂ Major exporters: China, Argentina, Mexico
- ✂ Newcomers: Zambia, Uganda, Ethiopia, Vietnam
- ✂ Imports are increasing, EU internal production is decreasing
- ✂ Germany is the leading importer (50% share), followed by UK, France and Belgium
- ✂ A single EU market access strategy is difficult due to cultural & market diversity
- ✂ High quality, mono-floral, single origin, organic and fairtrade honeys are in demand and highly priced (3-5 times higher prices compared to conventional poly-floral honey)
- ✂ Lower qualities used for industrial purposes ('Bakers' honey' mainly from China)



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## Nepal's (Export) Honey Sector

- 🐝 Production about 1,500 MT in 2012
- 🐝 Potential estimated 10,000 MT
- 🐝 Mainly poly-floral from Apis Cerana and Melifera bees, wild honey in the mid-hills
- 🐝 Commercial production mainly in southern districts, marketed through Cooperatives, Associations and 'Dabur Ptd'
- 🐝 Informal 'exports' to India and China
- 🐝 Recently small but increasing commercial exports to Bangladesh, US, Japan, Taiwan, Malaysia and Middle East (62.9 MT in 2013)



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## Options for Accessing the EU Market

- 1) Qualifying as a Candidate of the Third Country List
- 2) Complying with the EU Organic Requirements and Standards



## Legal Provisions and Production Standards in the EU

### Main EU instruments for regulating food safety in the honey sector

- Directive 96/23/EC (Monitoring substances and residues in live animals and animal products)
- Directive 2001/110/EC, amended by Directive 2014/63/EU (specifies additional honey requirements including composition criteria)
- Regulation 2377/1990, Regulation 37/2010 and amended by 470/2009 (Pharmaceutical substance residues)
- Regulation 178/2002 (Food safety)
- Regulations 852/2004, 853/2004, and 854/2004 (Hygiene)
- Regulation 396/2005 (Pesticide residues) amended by 149/2008
- Regulation (EU) No 1169/2011 on the provision of food information to consumers (FIC)



## Requirements for both Cases Third Country Listing / Organic Certification

- HACCP Standards/Certification or other international Food Safety and Hygienic Standards
- Traceability and Labelling of the entire Value Chain
- Health Certificate

## HACCP PLAN

### The Purpose

is to identify any risks associated with the production, extraction, filtration, packing, transportation and storage

### The Plan consists of the following

Hazard Analysis  
Critical Control Poin  
Critical Limits  
Monitoring  
Corrective Actions  
Verification  
Documentation



## Health Certificate Requirements

- A Health Certificate is mandatory (EC Regulation 852/2004)
- Implementation of food safety and hygienic procedures has to be assessed and certified by the National Competent Authority in accordance with HACCP principles.





## Lessons learnt from other Countries

- Since 2002 Zambia, Uganda and Ethiopia successfully export honey to EU
- Similar structure as in Nepal
- Third Country Listing has transformed their Honey Sectors



## Their Strategies to implement the RMP

- Selection of the Competent Authority with sufficient resources
- Revision of the National Apiculture Policy & Honey Standards
- Establishment and empowerment of National Apiculture Development Boards/Associations
- Setting up National Reference Laboratories
- Consequent focus on quality and certification: organic, fairtrade, HACCP, ISO standards
- In general, strong commitment, active cooperation and organization of all honey stakeholders as the Government, private sector and the development organizations
- In Ethiopia: An Action Plan was produced and Honey Quality Working and Value Chain Coordination Groups established
- The application was supported by a high-level expert team





## Their Challenges

- Cases of honey adulterations discovered from Ethiopian honey exports
- Exporting companies refused to pay the certification fees
- Resulted in a serious warning from EC authorities

## Lessons learnt for Nepal

- Stepwise reduction of subsidies for exporters
- Regulatory procedures which deal with cases of violating common agreements



**THE 6<sup>th</sup> NATIONAL  
MONITORING PLAN FOR RESIDUES IN  
HONEY FROM ETHIOPIA**

*presented by*

**The Animal Health Regulatory Directorate**

*under*

**THE MINISTRY OF AGRICULTURE (MoA)**

**Addis Ababa, Ethiopia**

**March 2013**

## The Honey Road Map (1)

- Identify and review food safety and health related legislations and standards e.g. Food Act (1966) and honey standards, Animal Health and Livestock Services Act 1998, Pesticides Act 1991, National Honey Standard, measurements to be taken for non-compliance, etc.
- Identify and entirely describe the Competent Authority and Authorised Competent Agencies and their responsibilities. Make sure that they have sufficient resources.
- Identify and profiling potential beekeepers, processors/honey cooperatives, exporters
- Set up a *Pilot Honey Export and Third Country Listing Group* assisted by international and national experts and consultants.
- Describe plans and efforts to implement HACCP and ISO certification procedures

## The Honey Road Map (2)

- Set up expected export volume (suggested 300 tonnes), identify target clients / countries
- Address the traceability and quality issues within the group
- Trainings for documentation, HACCP, ISO standards, quality production, storage and transportation
- Dissemination of manuals for national bee keeping standards, HACCP, GAP
- Entirely describe the accredited laboratories and processes for sample testing (in Nepal and India). In order to reduce costs for residue testing a sharing system between the laboratory in Nepal and Indian laboratories could be considered.
- Prepare samplings for residue analysis. Include the results already to the initial NRMP to be sent to the EU authorities. Using an European laboratory will be an asset.
- Compile the documents required and draft the RMP (strictly using guidelines and templates from the EU Commission)



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## The Road Map for Organic Honey

- Identify, profile and organise beekeepers / processors
- Checking the economic feasibility (according to the certification body Control Union, initial costs for group certification are approx. 3,500 €, depending on the size of the group and the travel distance to the farmers).
- Trainings about organic beekeeping, production standards, documentation, agro practices (disease prevention, husbandry management, input material used), HACCP principles
- Identify importers (there are possibilities for PPPs)
- Approach an Accredited Control Body (Control Union in this case), apply for inspection
- Compile the results of inspection / attestation from the control body and the Health Certificate from the Competent Authority.



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## Templates and Manuals



### Imports of animals and food of animal origin from non-EU countries:

*Provision of guarantees  
equivalent to EU requirements  
on residues of veterinary medicines,  
pesticides and contaminants*





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für internationale  
Entwicklungsprojekte



EUROPEAN COMMISSION  
HEALTH AND CONSUMERS DIRECTORATE-GENERAL  
Directorate D - Animal health and welfare

SANCO/7166/2010

**General guidance on EU import and transit rules  
for live animals and animal products from third  
countries**

After the presentation, the floor was opened for the question answer session where specific questions were addressed by the respective stakeholders.

## Plenary Discussion and Brain Storming

The topic for the plenary discussion and brain storming were following:

- Identification of responsibilities of the stakeholders
- Action Plan/Next steps
- Formation of a Task Force
- Formation of institutional organogram
- An intensive discussion among the participants about developing an Action Plan for the next steps
- Formation of Task Force and also the formation of institutional arrangements followed by presentations of the participants and a plenary discussion on each of the draft documents for the finalization.

Following the Plenary Discussion, the responsibilities were assigned to the Concerned Agencies and Action Plan was prepared. Furthermore, a Taskforce was proposed and Institutional Arrangement was drafted.

**Table 15:** Responsibility of the Concerned Agency

SN	Organisation	Responsibility
1	Ministry of Agricultural Development	Resource allocation and assessment , fund mobilization
		GAP validation, implementation and capacity building
		Amendment of food law ( as a support agency)
		Lead role for the preparation of national residue monitoring plan
		Coordination with departments under MoA, honey association and
		Coordination with donors and other development agencies for bee keeping
		Policy formulation, finalization and implementation
		Coordination, explore domestic and international market
2	DFTQC	Recruitments of honey inspector

		Develop the competency in testing and accreditation
		Amendment of food law in compliance with international food law
		To check the quality of honey by testing the required parameters
		Develop sampling guidelines for the sampling of honey
		Develop training manual on good hygienic practice for bee keepers
		Establishment of national reference lab
		Develop inspector check list for honey processing inspectors
		Development of GMP requirements for honey processors
		Formulation of GMP/HACCP guideline for honey processing unit
		Harmonization of standard to codex/EU
		Revision of existing food laws/regulation/standards
		Export certification (Health)
		Capacity building of labs and inspectors
3	Nepal Bureau of Standard and Meterology	Formulation of national standard ,eg. GAP, national standard of honey, harmonization of international / regional standards
		System certification. e.g. HACCP, ISO 9001, ISO 2200 etc.
		Product certification . e.g. NS certification
		Testing and calibration services
4	Directorate of Industrial Entomology Development (DOIED)	Policy initiation
		Training programme
		Honey production back stopping (facilitation)
		Scaling up honey production programme through DADO's
		Coordination for pasture management
		Quality control for resource supplies
		Gate way for honey sector development

5	Gandaki International Private Limited (Exporter)	Implement bee keeping related activities / trainings
		Develop contractual bee keeping practices
		Focus more on branded (bottle) honey rather than raw honey
		Develop backward and forward linkages with bee keepers/association/groups/cooperatives
6	Federation of Nepalese Bee Keepers	To unite beekeepers in one umbrella organization
		Provide technical knowledge for beekeepers
		Can take initiatives to make one brand i.e. Nepal Honey
		Lobby and advocacy for bee keeping related favorable policy
		Linkages and coordination with related stakeholders
7	Central Honey Entrepreneurs Association (CHEAN)	Advocate policy level on behalf of bee keepers and honey traders
		Promote Nepalese honey domestically and internationally
		Train bee keepers to go to commercial entrepreneurs
		Try to maintain fair competitive honey market and quality control
		Support to make link between bee keepers and honey traders
8	FNCCI /AEC	Coordination with private sectors
		Issues the certificate of origin
		Explore domestic and international market
9	Department of Agriculture	Regulate import, sales and distribution and application of pesticides
		Recommend pest management practices
		Preharvest inspector of honey bees/hive
		Registration of Bee Keeper
10	Department of Livestock Services	Regulate import, sales and distribution and application of Vet. drugs
11	Plant	Plant protection

	Protection Directorate	Pesticide management
12	MoCS	Coordination of implementation of key measures of the NTIS (Honey priority Sector)
13	National Seed Quality Control Center (NSQCC)	Seed certification
		Seed Import - export regulation

**Table 16:** Action plan

S.N	Activity	Responsible Body
1	Coordination with donors, MoF, MoCS and private sectors	Ministry of Agricultural Development
2	Establish national project implementation unit ( PIU) in MoAD	
3	Finalization /validation of honey GAP	
4	Implementation of NRMP through DFTQC, DoA and DoLS	
5	Start organic certification with OCN , other agencies both national and international	
6	Revision/Approval of NRMP	
7	Coordinate value chain actors ( Association, Govt. and others)	
8	Policy facilitate for Lab accreditation under MoAD departments ( DFTQC,DoA,DoLS,NARC)	
9	Formulate and finalisation of honey policy	
10	Registration of bee keepers	DoA/DOIED
11	recommend pest management practices	
12	Pre harvest inspection of bee hives (pesticides + vet. Drugs)	
13	Initiate / Facilitate bee promotion policy	
14	Collaborate /Assist for traceability	
15	Collaborate for residue monitoring	
16	Implementation of pesticide act., plant protection act	

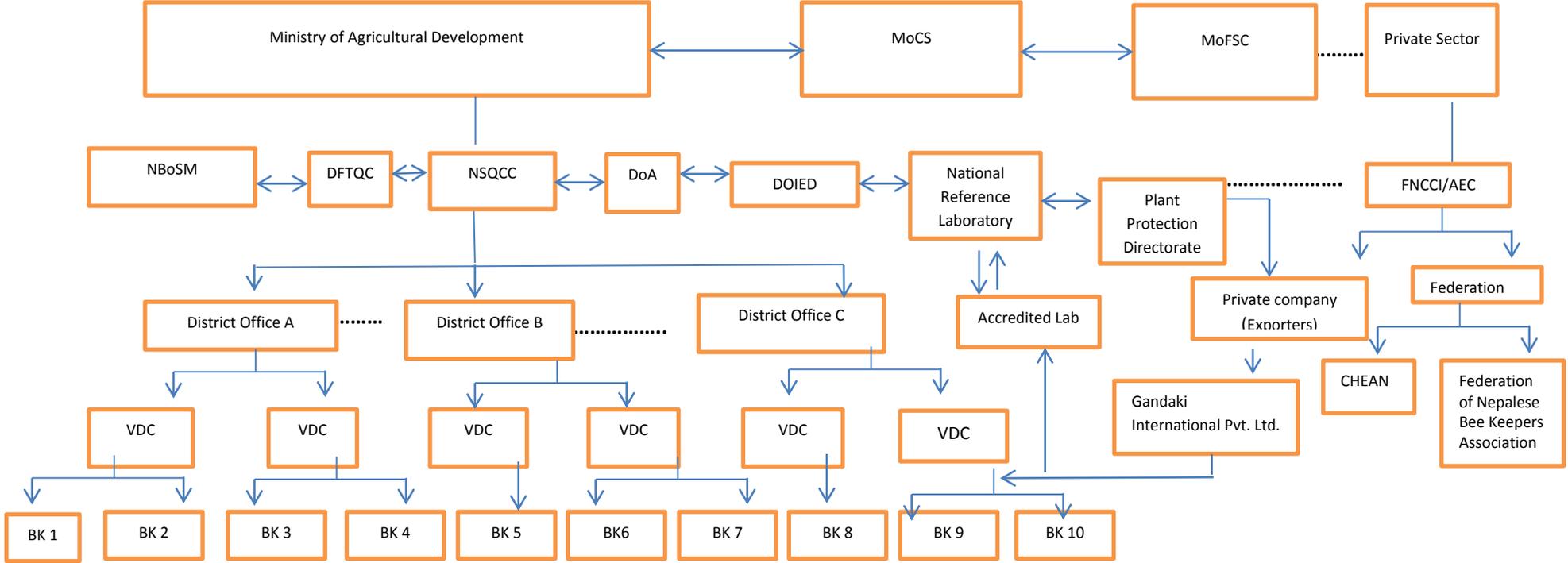
17	Amend laws related to pesticides (application, registration and manufacturing,	
	Making capable to export requirements of honey in EU	
18	Prepare beekeeping related policies	
19	Monitoring of pesticides application	PPT
20	Licensing of honey processor	Central Food Lab (DFTQC)
21	Testing of samples /issues health certification	
22	Recommend GMP/HACCP practices	
23	Collect Honey Samples from different regional market for honey	
	Test in Lab	
24	Post-harvest inspection Honey processing (GMP,HACCP)	
25	Post-harvest ( value chain)	
26	Apply for accreditation for contaminant parameters	
27	Sample of Honey	
28	Training for analysis for skill development testing of contaminant parameters	
29	Monitoring of residue	
30	Initiate research in bee keeping and honey quality	NARC
31	Conduct training for bee keepers	FNBK
32	Increase quality and quantity of honey	
33	Increment of production	
34	Amend laws related to veterinary drugs making compatible to export requirement of honey in EU	Department of Livestock Services (DoLS)
35	Product and system certification	NBSM
36	Formulation of national standard	

**Table 17:** Proposed Taskforce

<b>Task Force Members</b>	
1	MoAD - Chair
2	DoA/DoIED
3	DFTQC - Member Secretary
4	DoLS
5	NARC
6	GIZ (Donors)
7	Honey Association
8	Entrepreneurs Representatives

Task force: Deadline 15 March 2015

### Draft Institutional Arrangements



..... Loose bond – learning sharing  
 ——— Strong bond – working together

## Closing remarks

Dr. Peter Richter thanked all the participants for their active participation in the workshop despite the workshop on a public holiday. He was grateful for preparing an Action Plan, the categorisation of stakeholder responsibilities, the formation of a Task Force and the formation of institutional arrangements. He also added that, this is a good opportunity and the time that Nepali honey stakeholders should take initiatives to enter the EU market as there are also possibilities to identify other donors who can invest in this sector.

## Annexes

### Annex 1: National Honey Associations in the EU

	<b>Association</b>	<b>Country</b>
1.	Darbo AG	Austria
2.	Meli	Belgium
3.	Hunajainen SAM Oy	Finland
4.	Syndicat français des miels	France
5.	Honig-Verband e.V.	Germany
6.	SETSEM	Greece
7.	Magyar Mézkereskedők és Csomagolók Egyesülete	Hungary
8.	A.I.I.P.A.	Italy
9.	De Traay B.V.	Netherlands
10.	CORPO Sp. z o.o. S.K.A.	Poland
11.	Apisland LDA	Portugal
12.	Medex d.o.o.	Slovenia
13.	Asemiel	Spain
14.	Narimpex AG	Switzerland
15.	British Honey Importers & Packers Association	United Kingdom

## Annex 2: Major Honey Players and Importers in the EU

1. Breisamer & Ulrich <http://www.breitsamer.de>
2. Fuersten-Reform <http://www.fuersten-reform.de>
3. Allos <http://allos.de/> (major organic importer and distributor)
4. GEPA Fair Handelshaus <http://www.gepa.de> (major importer of fairtrade honey)
5. Stute <http://www.stute-nahrungsmittelwerke.de> (packer for private label products)
6. Tuchel & Sohn <http://www.tuchel-sohn.de>
7. Walter Lang Honigimport <http://www.honigimport.de> (supply for industry honey)
8. Honig-Verband e.V. <http://www.honig-verband.de>
9. Meli <http://www.meli.be> (importer for fairtrade certified honey)
10. Weyn's Honing <http://weyns-honing.com> (packer)
11. Bijenhof <http://www.bijenhof.be> (importer and packer specialized in private label in Belgium)
12. Maya Fair Trade <http://www.maya-ft.be> (specialized in fairtrade products-Belgium)
13. Bernard Michaud <http://www.lunedemiel.fr> (major importer in France)
14. Naturalim <http://www.naturalim.com>
15. Alter Eco <http://www/altereco.com>
16. Rowse Honey <http://www.rowsehoney.co.uk> (major importer and packer in UK)
17. Tropical Forest Products <http://www.tropicalforest.com> (specialized in importing specialty honey)
18. Fuerst Day Lawson <http://www.fdl.co.uk> (major honey importer and packer in UK)
19. Kimptons <http://www.kimpton.co.uk>
20. Etco International Commodities <http://www.etco.co.uk>
21. Honningcentralen <http://www.honning.no> (major importer and distributor in Norway)
22. Honey International <http://www.honeyinternational.nl/> (importer and distributor in Netherlands)

## Annex 3: Honey Composition Criteria according to EU Standard Requirements

### 1. Sugar content

#### 1.1. Fructose and glucose content (sum of both)

- blossom honey not less than 60 g/100 g
- honeydew honey, blends of honeydew honey with blossom honey not less than 45 g/100 g

#### 1.2. Sucrose content

- in general not more than 5 g/100 g
- false acacia (*Robinia pseudoacacia*), alfalfa (*Medicago sativa*), Menzies Banksia (*Banksia menziesii*), French honeysuckle (*Hedysarum*), red gum (*Eucalyptus camadulensis*), leatherwood (*Eucryphia lucida*, *Eucryphia milliganii*), Citrus spp. not more than 10 g/100 g
- lavender (*Lavandula* spp.), borage (*Borago officinalis*) not more than 15 g/100 g

### 2. Moisture content

- in general not more than 20 %
- heather (*Calluna*) an baker's honey in general not more than 23 %
- baker's honey from heather (*Calluna*) not more than 25 %

### 3. Water-insoluble content

- in general not more than 0,1 g/100 g
- pressed honey not more than 0,5 g/100 g

### 4. Electrical conductivity

- honey not listed below, and blends of these honeys not more than 0,8 mS/cm
- honeydew and chestnut honey and blends of these except with those listed below not more than 0,8 mS/cm
- exceptions: strawberry tree (*Arbutus unedo*), bell heather (*Erica*), eucalyptus, lime (*Tilia* spp.), ling heather (*Calluna vulgaris*), manuka or jelly bush (*leptospermum*), tea tree (*Melaleuca* spp.)

### 5. Free acid

- in general not more than 50 milli-equivalents acid per 1 000 grammes
- baker's honey not more than 80 milli-equivalents acid per 1 000 grammes

### 6. Diastase activity and hydroxymethylfurfural content (HMF) determined after processing and blending

#### (a) Diastase activity (Schade scale)

- in general, except baker's honey not less than 8
- honeys with low natural enzyme content (e.g. citrus honeys) and an HMF content of not more than 15 mg/kg not less than 3

#### (b) HMF

- in general, except baker's honey not more than 40 mg/kg (subject to the provisions of (a), second indent)
- honeys of declared origin from regions with tropical climate and blends of these honeys not more than 80 mg/kg

Annex 4: Countries eligible to export honey to the European Union (Third Country List from 2014)

Argentina	El Salvador	Madagascar	Serbia
Australia	Ethiopia	Mexico	Switzerland
Armenia	French Polynesia	Moldova	Thailand
Brazil	Ghana	Montenegro	Taiwan
Bosnia & Herzegovina	Guatemala	New Caledonia	Tanzania
Canada	Israel	New Zealand	The Former Yugoslav Republic of Macedonia
Cameroon	India	Nicaragua	Turkey
China	Jamaica	Pitcairn Islands	Ukraine
Chile	Kyrgyzstan	Russia	Uganda
Cuba	Lebanon	San marino	United States
			VietNam
			Zambia

## Annex 5: Pre-Mission Questionnaire

### 1. GENERAL INFORMATION

1.1. Name of country .....

#### 1.2. Geographical issues

Please provide a map of ..... showing the following features:

- national borders
- internal administrative borders (regional and local)
- borders of any approved disease control areas (regionalisation)
- main cities/towns
- main roads/railways
- main geographical features (rivers, mountain ranges)
- sites of:
  - headquarters of State Veterinary Service (SVS)
  - regional and local offices of SVS
  - central and regional official laboratories
  - approved border inspection posts (airports, sea ports, land crossings)

### 2. LIVESTOCK POPULATION

Please complete the table for holdings and livestock numbers in Annex I to this report (information should be given for the last 3 years):

### 3. LEGISLATION

Give the titles of the national legislation which is considered to provide equivalent health controls/guarantees to those laid down in the relevant EU legislation (indicating the title and name of the EU legislation in each case) for each of the sections included in this questionnaire. These should indicate clearly the animals and commodities covered by the cited legislation. Legislation controlling the use and distribution of veterinary medicines and medicated feedstuffs, residues monitoring and permitted Maximum Residue Limits (MRLs) should be included.

Copies of the above legislation should be provided.

#### **4. ANIMAL HEALTH SITUATION**

##### **4.1. Animal health legislation**

- (1) Indicate the species covered by the definition of "livestock".
- (2) Give a list of notifiable diseases (OIE list, others)
- (3) Give details of legal obligations to notify suspect outbreaks of OIE listed diseases.
- (4) Give details of any legal requirements for the control and eradication of OIE listed diseases.
- (5) Give details of any compensation payments made available to farmers etc when animals are slaughtered for disease control/eradication purposes.

##### **4.2. Routine animal health controls**

- (1) Describe any routine monitoring programmes for the presence of OIE listed diseases.
- (2) Give details of controls over the use, feeding and disposal of waste food, including controls over waste food coming from international transport.
- (3) Give details of any vaccination programmes in operation in respect of OIE listed diseases.

##### **4.3. Disease notification**

Describe existing procedures for notification to:

- OIE
- European Commission

of outbreaks of former OIE list A diseases.

If no such procedures currently exist, indicate what action will be taken to ensure notification in the future, and indicate the timetable for its implementation

*NB. OIE membership, and a formal commitment to notify outbreaks of former OIE list A diseases to the European Commission and Member States is a requirement for all third countries seeking to export to the European Union).*

- (4) What action is required of farmers, private veterinarians, etc who suspect an outbreak of former OIE list A disease?
- (5) Give dates and details of the outbreaks of all OIE listed diseases within the last 5 years.
  - in farmed livestock population

- in wild animal population

#### **4.4. Disease outbreaks (former OIE list A diseases)**

- (1) Give details of any written guidelines available to the official services for dealing with outbreaks of former OIE list A diseases.
- (2) In the event of a former OIE list A disease outbreak:
  - indicate the sampling and testing procedures used to identify and confirm presence of the causative agent.
  - describe the actions taken to control the disease situation in and around any holdings found to be infected with a former OIE list A disease (where these vary with the disease concerned, the differences should be clearly signalled).
  - indicate the control and/or eradication procedures (e.g. vaccination, stamping out, partial slaughter/vaccination etc) that would be taken.
  - describe the procedures used to confirm that an outbreak has been successfully controlled/eradicated, including any restrictions on restocking.
- (3) Give details of the presence of any vector populations that might facilitate the spread of former OIE list A diseases.
- (4) If former OIE list A diseases are found in only part of the country, please indicate the reasons (e.g. natural boundaries, intervention by the official services etc) why this is considered to be the case. Details of any artificial internal barriers, e.g. game fences etc, should be provided.

#### **4.5. Vaccination**

- (1) Describe the legal rules applicable to the use of vaccination against animal diseases.
- (2) Give full details of any routine vaccination programmes against OIE listed diseases.
- (3) Where vaccination is practised, give details of any controls over the type (e.g. live, dead), strains, production, use, storage and distribution.

#### **4.6. Pre-export checks**

- (1) Checks carried out on farms of origin in relation to animal health status

### **5. COMPETENT AUTHORITY CONTROL SYSTEMS**

#### **5.1. Management structures**

Give the name, responsibilities and contact details of the Directors of:

- Animal Health Services

- Public Health Services (food safety)
  - Controls on veterinary medicines and medicated feedstuffs
  - Laboratory Services
- (1) Describe the structure of the above services, and provide an organigramme of each service. The procedures for co-ordination and co-operation between the above services should be given. The management lines from central to regional to local services should be clearly indicated.
  - (2) Indicate to whom the Directors report, and their relationship with the relevant government Ministers.

**5.2. Independence of the official services**

- (1) Describe the procedures that are in place to ensure the independence of the above services.
- (2) What links exist between the official services and private or quasi-governmental bodies?
- (3) What powers of investigation and enforcement are given to the official services?

**5.3. Resources**

*NB. The following information should be given separately for the central, regional and local levels of the official services.*

- (1) Financial
  - Indicate the budget available for the operation of routine health controls, of any special health programmes and for dealing with health emergencies.
  - Indicate the proportion of the budget provided by government, and that provided by other sources (the status of any other sources should be clearly indicated).
- (2) Personnel

Complete the following tables.

Permanent staff						
	Veterinary staff		Administrative staff		Technical staff*	
	Filled posts	Vacant posts	Filled posts	Vacant posts	Filled posts	Vacant posts
Central service						
Regional service						
Local service						
Border controls						

Laboratory service						
- central laboratory						
-regional laboratories						
* Staff employed as animal or public health auxiliaries, acting in support of veterinary staff in the performance of technical duties						

Contract and temporary staff						
	Veterinary staff		Administrative staff		Technical staff*	
	Filled posts	Vacant posts	Filled posts	Vacant posts	Filled posts	Vacant posts
Central service						
Regional service						
Local service						
Border controls						
* Staff employed as animal or public health auxiliaries, acting in support of veterinary staff in the performance of technical duties						

### (3) Equipment

Indicate the type and quantity of equipment (e.g. vehicles, radios, disease control equipment, disinfectant sprays, humane slaughtering equipment, protective clothing etc.) available at regional and local offices for the performance of routine and emergency veterinary controls.

### 5.4. Personnel

What rules apply to the private/professional activities of permanent officials (veterinary and auxiliaries) outside their official duties?

Which official duties may be undertaken by private veterinarians/auxiliaries?

What rules are in place to ensure the independence of private veterinarians/auxiliaries carrying out official duties?

### 5.5. Recruitment & training

Describe the recruitment procedures for veterinary and technical staff.

Describe the minimum qualifications (and years of experience, where appropriate) required for veterinary and technical staff.

Give details of routine or special training programmes available for newly recruited and established veterinary and technical staff.

Give details of the arrangements for continued professional development of veterinary and technical staff.

#### **5.6. Legal/enforcement powers**

Indicate the enforcement powers and sanctions available in the event of non-compliance with national legislation. This should indicate which branch(es) of the official services has/have the power to initiate and follow-up prosecutions.

Provide details of all prosecutions, and their outcomes, undertaken by the official services in the veterinary and food safety sectors in the last three years.

#### **5.7. Prioritisation of controls (routine programmes)**

Describe any formal, written, system for the identification and prioritisation of veterinary and food safety controls operated by the official services. Examples of this system should be provided, with particular reference to the sector(s) for which EC approval is being sought.

Indicate whether regular reviews are undertaken of the prioritisation systems. Details of the frequency and nature of these reviews should be provided.

Describe the procedures for modifying the prioritisation system to take account of changes in the health situation, and/or the results of the official control findings.

#### **5.8. Documentation of controls (routine programmes)**

Provide details of written official control programmes at national, regional and local levels.

Provide examples of the documented results of these programmes, and of the action taken in response to these results.

Provide details of any internal or external audit system designed to monitor the operation of these control programmes.

#### **5.9. Laboratory service**

*NB. See also section 11 of the questionnaire, dealing with specific laboratory issues.*

Indicate the number and sites of laboratories included in any official network. The status of the laboratories (private/official) should be given. Describe the duties of the central laboratory and regional/local laboratories in the veterinary and food safety sectors.

Describe the management structure of the laboratory service, and its relationship to the central veterinary services.

Describe any links with international or EU reference laboratories. This should include participation in ring tests, exchanges of officials etc.

#### **5.10. Import controls**

*NB. This section relates to the operation of controls over imports of animals and animal products into the third country. See also section 10 of the questionnaire, dealing with specific import control issues*

Is the official service responsible for import controls part of the official services described in section 5.1, or is it an independent body?

If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central veterinary services.

Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts

How are imported products destined for use in the manufacture of EU-export eligible products identified?

#### **5.11. Animal disease notification & control systems**

*NB. See also section 4 of the questionnaire, dealing with specific animal health issues.*

Indicate which OIE listed diseases are the subject of official controls.

Indicate the legal requirements for the notification of suspicion and/or outbreaks of the above diseases.

Give details of any routine surveillance programmes for the above diseases.

Give details of any documented programmes to respond to outbreaks of former OIE list A diseases.

#### **5.12. Chemical food safety controls**

*NB. See also section 13 of the questionnaire, dealing with specific food safety issues.*

Indicate which food-borne chemical risks are required to be notified to the official services

Describe the procedures in place for co-operation/co-ordination between the responsible Ministries/Agencies when a food-borne disease by a chemical risk is identified in either the human or animal population.

Give details of any documented programmes to respond to food-borne diseases by a chemical risk.

Describe the system in place for the recording of food-borne diseases by a chemical risk.

#### **5.13. Microbiological food safety controls**

- (1) Describe any monitoring and/or control programmes in operation for zoonotic agents in animals and foodstuffs.
- (2) Give details of national legislation covering:
  - obligation to notify suspect/confirmed cases in feed, animals and foodstuffs
  - action required of farmers, private veterinarians, etc
  - action required of official services
- (3) Give results of recording systems for food-borne zoonotic cases in feed, animals and foodstuffs in the last 3 years.
- (4) Give details of any documented contingency plans, and the procedures in place, for the investigation and control of food-borne zoonotic outbreaks (2 or more cases linked by the same source of infection) in human populations.
- (5) Give details of routine and emergency consumer awareness campaigns.

#### **5.14. Residue controls**

Where not already done, please provide a copy of the national residues monitoring programme in fulfilment of the provisions of Council Directive 96/23/EC.

#### **5.15. Controls on the use and distribution of veterinary drugs**

- (1) Is the sale, or use in any animal species, of stilbenes or substances having a thyrostatic action permitted? (See Council Directive 96/22/EC).
- (2) Which veterinary drugs are banned for use in food producing animals (including equidae)? Is the sale or administration to farm animals of substances having an oestrogenic, androgenic, gestagenic action or of beta-agonists permitted? If so, under what conditions?
- (3) Which veterinary medicines are 'prescription only medicines'? What provisions exist in the legislation as regards the "extra label use" of veterinary drugs in food-producing animals?
- (4) Where the use of Hormone Growth Promoters is permitted, describe any system in place to identify animals produced without their use.
- (5) Describe the controls on the production and distribution of medicated feedstuffs.

- (6) Provide a list (vademecum) of all registered authorised veterinary drugs and premises for medicated feedingstuffs with the name of the veterinary drug, active substance, type of treatment (oral, injection etc), the withdrawal period and which species are concerned.

#### **6. FARM REGISTRATION**

- (1) Describe the system used to register livestock holdings. Any exemptions from this system should be clearly indicated.
- (2) Describe the method used to identify individual holdings.
- (3) Describe the system for the recording of farm registrations.

#### **7. ANIMAL IDENTIFICATION**

- (1) Describe the system for the identification of all classes of farm animals (cattle, sheep, goats, pigs, farmed game). Any exemptions from this system should be clearly indicated. Information on recording systems for the identification of animals should be given.

In particular, give details of the type of mark used (tags, tattoos etc), whether they allow individual animal or only farm identification, maximum age of animals at first identification, responsibility for application of marks, on-farm and official records of marks, re-application of lost marks, special marks for suspect or diseased animals etc.

- (2) Indicate any special rules for identification of pedigree animals.
- (3) Describe the official controls and records maintained to monitor the operation of the animal identification systems.
- (4) Indicate how the system allows traceback of animals and carcasses to their farms of origin.

#### **8. MOVEMENT CONTROLS**

- (1) What controls exist over the movement of animals and animal products between regions of different health status?
- (2) Indicate if there is any official system for the authorisation of animal movements.
- (3) Give details of any requirements for the recording of animal movements (either by farmers, market authorities or the official services).
- (4) What additional controls are applied to animals with officially recognised disease-free status?
- (5) What additional controls are applied to animals despatched from farms which are not officially recognised to be free of specific diseases?

- (6) Describe the system for the updating and checking of movement record registers.
- (7) Describe the system for recording animal movements into and out of markets, and the procedures in place to avoid contact between animals of different health status.
- (8) Give details of any systems for the registration and authorisation of livestock vehicles and hauliers.
- (9) What records of animal movements are hauliers required to maintain?

## 9. CERTIFICATION

- (1) Describe the official controls over printing, storage and distribution of blank certificates. In particular, who is responsible for maintaining supplies of blank copies of certificates?
- (2) Describe the procedures for the completion of certificates.
- (3) Describe the procedures for the signature of certificates. In particular, who is responsible for signature?
- (4) Describe the procedures for the withdrawal or amendment of signed certificates.
- (5) Give details of any written instructions made available to certifying officials.
- (6) Give details of who is responsible for producing and checking support documentation for certificates.
- (7) Describe the procedures to be followed when the final health certificate that accompanies consignments exported to the EU is produced and signed.
- (8) Describe the controls over the movement of consignments within the country before final export to the EU.

## 10. IMPORT CONTROLS

*NB. This section relates to the operation of controls over imports of animals and animal products into the third country.*

- (1) Describe the general controls over the import of live animals and animal products (legislation, approved countries and processing establishments, issue of import permits, quarantine requirements, animal and public health guarantees, certification, pre- and post-import testing etc).
- (2) Describe any controls on the import of animals having been treated with growth promoters.

- (3) Describe the type and frequency of checks carried out on imports of live animals and animal products at the point of entry into the country and/or their final destination.
- (4) Indicate the status and responsibility of the official in charge of import controls at border inspection posts.
- (5) Describe the action available under legislation, and actually taken, when an illegal import is detected.
- (6) Give details of any guidance given to officials, and the outcome of checks undertaken.
- (7) Describe the procedures for controls undertaken over animals and animal products that are:
  - entering the country
  - transiting the country

#### **11. LABORATORY OPERATIONS**

- (1) What procedures exist for the official accreditation of laboratories?
- (2) Give details of the financial resources available to the official laboratory network.
- (3) Give details of the type of tests undertaken by the laboratories in respect of the diagnosis and routine monitoring for former OIE list A diseases.
- (4) Is live virus handled in respect of former OIE list A diseases? If so, what precautions are in place to avoid accidental escape?
- (5) Give details of any ring tests organised and operated within the laboratory network, and/or with laboratories in other countries or international reference laboratories. What procedures are in place in the event of unsatisfactory results from these tests?
- (6) Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO etc. that exist in, or planned for, the laboratory system.
- (7) What procedures are in place for maintenance of equipment and replacement of reagents?
- (8) Describe qualifications of, and training programmes for, laboratory staff.

#### **12. ZONOSSES AND FOOD POISONING CONTROLS**

- (1) Describe any monitoring and/or control programmes in operation for zoonoses and food poisoning organisms.
- (2) Give details of national legislation covering:

- obligation to notify suspect/confirmed outbreaks
  - action required of farmers, private veterinarians, etc
  - action required of official services
- (3) Give results of recording systems for outbreaks of zoonoses and food poisoning in the last 3 years.
  - (4) Describe any system in place for the rapid identification and notification of outbreaks of zoonoses and food poisoning.
  - (5) Give details of any documented contingency plans, and the procedures in place, for the investigation and control of outbreaks of zoonoses and food poisoning in animal and human populations.
  - (6) Give details of routine and emergency consumer awareness campaigns.

**13. FOOD SAFETY STANDARDS (IN RELATION TO SECTORS FOR WHICH EXPORT APPROVAL IS SOUGHT, IF APPLICABLE)**

*NB. The following questions should be answered in relation to the sector(s) for which approval to export to the EU is being sought (if applicable).*

**13.1. Production details**

The following information for each individual food processing establishment which is to be proposed for approval for the EU market should be provided.

- approval number
- trading name
- full address
- name of the official veterinarian in charge of the establishment
- type and volume of all products from the establishment
- type and volume of products intended for export to the EU
- confirmation by the official service of compliance with EU standards

**13.2. All food processing premises**

- (1) What national legislation is in place that will ensure equivalent standards to those laid down in EU legislation?
- (2) Give details of official control programmes, including internal audit systems for the official services, in the food safety sector. In particular, information on systems for the prioritisation and documentation of these programmes, and their results, should be provided.

- (3) Indicate the frequency and nature of official controls over the operation of processing establishments.
- (4) Describe the procedures for the granting, suspension and withdrawal of approval for processing and storage establishments.
- (5) Indicate the procedures for the monitoring of layout and structural conditions in establishments.
- (6) Describe controls over the use of health marks.
- (7) Describe controls over the use of health certificates.
- (8) What arrangements are in place for the provision of medical certificates for food handlers?
- (9) Describe the nature, frequency and extent of official controls within establishments.
- (10) Give details of the procedures in place to ensure traceability (back to farm level) of animal products intended for human consumption.
- (11) Indicate the legal requirements for water quality and safety.
- (12) Give details of any "own-check" systems (including HACCP) that operators and processors are required to implement. This should include the role of the official service in the development and checking of these systems.
- (13) Provide copies of any official guidelines and/or instructions on:
  - water testing programmes
  - cleansing and disinfection of establishments
  - pest control programmes
- (14) What access do the official services have to production records?
- (15) What action are operators and processors required to take if a serious threat to animal or consumer health is identified? What is the role of the official services in such cases?
- (16) What systems are in place to provide for the training of company operatives?
- (17) What are the qualifications, training and role of official auxiliaries in processing establishments? Indicate any restrictions on their activities. Indicate if the auxiliaries are paid by the processor or by the official services.

**Note to competent authority**

This questionnaire should be completed and returned to:

Mr Michael Scannell, Director

Food and Veterinary Office

Grange, Dunsany

Co. Meath

Ireland

E-mail: [Michael.Scannell@ec.europa.eu](mailto:Michael.Scannell@ec.europa.eu)

Where any questions cannot be completely answered, this should be clearly indicated, and the missing information provided before the start of any FVO mission.

# Annex 6: Templates for the RMP for Honey

## REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY		DATE						
YEAR OF PLAN IMPLEMENTATION								
ANIMAL SPECIES / PRODUCT	<b>HONEY</b>							
National PRODUCTION DATA in TONNES (referring to the previous year)		EU EXPORT DATA in TONNES (referring to the previous year)						
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	1637	<p>See instruction sheet, note 4. If a split system is in place for exports to the EU, actual export data may be entered in this cell. If there is no split system, and honey from ALL FARMS is eligible for export to the EU, national production data must be entered in this cell. NB: Sample rate is 10 per 300 tonnes of annual production for the first 3000 tonnes and 1 sample per additional 300 tonnes. For a more detailed description of the options see hyperlink.....&gt;</p> <p><a href="#">Sampling levels and frequencies</a> </p>						
NUMBER OF SAMPLES	ACCORDING TO EU REQUIREMENTS	MATRIX ANALYSED	SCREENING METHOD	CONFIRMATORY METHOD	SCREENING METH. DETECTION LIMIT (µg/kg)	CONFIRM. METH. DETECTION LIMIT (µg/kg)	LEVEL OF ACTION if a concentration above which a result is deemed non-compliant (µg/kg)	LABORATORY
MINIMUM PLAN	55	ACCORDING TO CODEX ALIMENTARIUM						
OTHER								
GROUP OF SUBSTANCES TO BE MONITORED	NUMBER OF SAMPLES	COMPOUND or MARKER RESIDUE	SCREENING METHOD	CONFIRMATORY METHOD	SCREENING METH. DETECTION LIMIT (µg/kg)	CONFIRM. METH. DETECTION LIMIT (µg/kg)	LEVEL OF ACTION if a concentration above which a result is deemed non-compliant (µg/kg)	LABORATORY
A6 Chloramphenicol + Nitrofurans + Nitroimidazoles CHLORAMPHENICOL NITROFURANS Nitrofurantoin metabolite Furazolidone metabolite Furazolidone metabolite Nitrofurazone metabolite	MIN							
	PLAN	5						
B1 ANTIBACTERIAL SUBSTANCES	14							

GROUP OF SUBSTANCES TO BE MONITORED	NUMBER OF SAMPLES		COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	CONFIRMATORY METHOD	SCREEN METH. DETECTION LIMIT [µg/kg]	CONFIRM. METH. DETECTION LIMIT [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	LABORATORY
	MIN	PLAN								
B3a + B3b + B3c	22									
B3b) ORGANOCHELORINE COMPOUNDS INCLUDING PCBs										
B3b) ORGANOPHOSPHORUS COMPOUNDS										
B3c) CHEMICAL ELEMENTS										

Check calculation of total of minimums

35

The number of samples to be taken each year must at least equal to 10 per 300 tonnes of the annual production for the first 3 000 tonnes of production and one sample for each additional 300 tonnes. The following breakdown must be respected: - Group B.1 and Group B.2 (c): 50 % of the total number of samples, - Group B.3 (a),(b) and (c): 40 % of the total number of samples. The balance (10 %) must be allocated according to the experience of the countries.

Since Council Directive 96/23/EC has come into force, problems with unauthorised use of chloramphenicol and nitrofurans have occurred world-wide. Consequently, Member States have been asked by the Commission to include these substances in their national residue control plans. Third countries are therefore requested to do the same.

In order to facilitate the breakdown of samples and ensure that the correct number of samples are tested, the spreadsheet has made the following calculations which distributes the balance of samples between each of the (sub) groups in the following way:

The balance of the total number of samples (10%) is allocated to Group A6

- Of the samples to be tested for Group B1 and B2c, the samples are allocated equally between both subgroups

Annex 7: Examples of Documents for Honey Traceability

<b>Delivery of Bees/Queens</b>
--------------------------------

Date	Supplier/ Charge-Number	Complaints	Measure	Sign

<b>Disease control/-prophylaxis</b>
-------------------------------------

Date	Colony	Disease/ Method	Measure	Remark	Sign

<b>Delivery of Honey</b>
--------------------------

Date	Customer Charge-Number	Complaints	Measure	Sign

<b>Control of Honey extraction / Storage</b>
--

Date	Water content measured	If necessary: Mixture with Charge No.	Measure at exceeding humidity level	Sign

<b>Storage time</b>
---------------------

Date	Place	Complaints	Measure	Sign

## Annex 8: Template of Certificate of Inspection

### CERTIFICATE OF INSPECTION FOR IMPORT OF PRODUCTS FROM ORGANIC PRODUCTION INTO THE EUROPEAN COMMUNITY

1. Issuing body or authority (name and address)	2. Council Regulation (EC) No 834/2007, Article 33(2) <input type="checkbox"/> or Article 33(3) <input type="checkbox"/> or Commission Regulation (EC) No 1235/2008, Article 19 <input type="checkbox"/>	
3. Serial number of the certificate of inspection	4. Reference No authorisation under Article 19	
5. Exporter (name and address)	6. Control body or control authority (name and address)	
7. Producer or preparer of the product (name and address)	8. Country of dispatch	
	9. Country of destination	
10. First consignee in the Community (name and address)	11. Name and address of the importer	
12. Marks and numbers. Container No(s). Number and kind. Trade name of the product	13. CN codes	14. Declared quantity
<p>15. Declaration of body or authority issuing the certificate referred to in box 1.</p> <p>This is to certify that this certificate has been issued on the basis of the checks required under Article 13(4) of Regulation (EC) No 1235/2008 and that the products designated above have been obtained in accordance with rules of production and inspection of the organic production method which are considered equivalent in accordance with the provisions of Regulation (EC) No 834/2007.</p> <p>Date _____</p> <p>Name and signature of authorised person _____ Stamp of issuing authority or body _____</p>		

# Annex 9: Health Certificate

## MODEL HEALTH CERTIFICATE FOR IMPORTS OF HONEY AND OTHER APICULTURE PRODUCTS INTENDED FOR HUMAN CONSUMPTION

COUNTRY		Veterinary certificate to EU	
Part I: Details of dispatched consignment	1.1. Consignor Name  Address Postal code Tel No.		1.2. Certificate reference number 1.2.a
			1.3. Central Competent Authority
			1.4. Local Competent Authority
	1.5. Consignee Name  Address Postal code Tel No.		1.5.
	1.7. Country of origin	ISO code	1.8.
	1.9. Country of destination		ISO code
	1.10.		
	1.11. Place of origin  Name Address		1.12.
	1.13. Place of loading		1.14. Date of departure
	1.15. Means of transport Aeroplane <input type="checkbox"/> Ship <input type="checkbox"/> Railway wagon <input type="checkbox"/> Road vehicle <input type="checkbox"/> Other <input type="checkbox"/> Identification: Documentary references:		1.16. Entry BIP in EU
1.17.			
1.18. Description of commodity		1.19. Commodity code (HS code)	
		1.20. Quantity	
1.21. Temperature of product Ambient <input type="checkbox"/> Chilled <input type="checkbox"/> Frozen <input type="checkbox"/>		1.22. Number of packages	
1.23. Identification of container/Seal number		1.24. Type of packaging	
1.25. Commodities certified for Human consumption <input type="checkbox"/>			
1.26.		1.27. For import or admission into EU <input type="checkbox"/>	
1.28. Identification of the commodities			
Species (Scientific name)		Treatment type	Approval number of establishments
		Manufacturing plant	Number of packages
			Net weight

COUNTRY

Honey and apiculture products

<b>Part II: Certification</b>	II	<b>Health attestation</b>	II.a	Certificate reference number	II.b
	<p>I, the undersigned, declare that I am aware of the relevant provisions of Regulations (EC) No 178/2002, (EC) No 852/2004 and (EC) No 853/2004 and certify that honey and apiculture products described above were produced in accordance with those requirements, in particular that they</p> <ul style="list-style-type: none"><li>— come from (an) establishment(s) implementing a programme based on the HACCP principles in accordance with Regulation (EC) No 852/2004,</li><li>— have been handled and, where appropriate, prepared, packaged and stored in a hygienic manner in accordance with the requirements of Annex II to Regulation (EC) No 852/2004</li></ul> <p>and</p> <ul style="list-style-type: none"><li>— the guarantees covering live animals and products thereof provided by the residue plans submitted in accordance with Directive 86/23/EC, and in particular Article 29 thereof, are fulfilled</li></ul>				
<b>Notes</b>					
<b>Part I</b>					
— Box reference I.11: Place of origin: name and address of the dispatch establishment.					
— Box reference I.15: Registration number (railway wagons or container and lorries), flight number (aircraft) or name (ship). Separate information is to be provided in case of unloading and reloading					
— Box reference I.19: Use the appropriate HS codes: 04.06, 04.10					
— Box reference I.23: Identification of container/seal number: only where applicable.					
<b>Part II:</b>					
— The colour of the stamp and signature must be different to that of the other particulars in the certificate.					
<b>Official inspector</b>					
Name (in capitals): Date Stamp			Qualification and title: Signature:		

## Annex 10: Example of Assessment Report in Accordance to HACCP Principles

### ASSESSMENT REPORT FOR INFRASTRUCTURE AND EQUIPMENT FACILITIES

Name of the processing establishment	: M/s.			
Address of the processing establishment	Address: District: State: Country: India. Ph. Fax: E.mail:			
Address of the Regd. Office	Address: District: State: Country: India. Ph. Fax: E.mail:			
Scope of assessment	: On-site verification to adjudge suitability of the infrastructure and equipment facilities of the establishment for processing, handling and storage of honey			
Date(s) of assessment	:			
Opening Meeting Location and date				
Closing Meeting Location and date				
Name of IDP members	Designation	Organization	Opening Meeting (Sign)	Closing Meeting (Sign)
Name of Representative(s) of the establishment	Designation	Organization	Opening Meeting (Sign)	Closing Meeting (Sign)

<b>Section-I: Information</b>		
<b>A</b>	<b>General</b>	
1	Name of the Chief Executive (MD/Mg. Partner/Proprietor) (Give Contact Numbers and E-mail, if any)	
2	Is the processing plant owned or leased by the applicant	Owned/leased
3	If leased, name of the plant owner, plant name and address.	
4	Month and Year of Construction	
5	Month and Year of last major alterations	
6	Month and Year of Commercial Production	
7	Approval requested for export to (Countries)	All countries including European Union / Countries other than EU.
8	Scope of approval. Name(s) of the product(s).	
9	Additional activities, if any, in the same premise and other than the products mentioned above.	
10	Annual production during the previous year (a) Honey (Within the scope of approval) (b) Others (specify)	
11(a)	Total exports during the last one year Financial Year Destinations (Countries) Quantity FOB Value in Rupees in Lakhs.	
(b)	Total Import during last one year Financial Year Importing Countries Quantity	
12	Whether all year production or seasonal production	
13	Number of working hours and shifts per day	
14	Number of working days per week. Specify weekly holiday	
<b>B.</b>	<b>Information on Structure of the Establishment</b>	
15	No. of vehicles the establishment has for transportation of raw materials, finished products, water(if applicable)  1) Insulated Vehicle 2) Non-insulated vehicle 3) Three wheelers 4) Water tanker	No.      Capacity      Regd. No.
16	Does the establishment hire outside vehicles?	
17	Is there any cold/ambient storage for storage of food products?	

	Specify numbers and storage temperatures.	
18	Are there storage facilities for in-process honey? Specify type of storage facility and temperature of storage	
19	Whether the unit have heating facility to reduce the moisture content of the honey? If yes, specify method and capacity of Chilling.	
20	Is there facility for filtration of honey? Specify their capacities.	
22	Whether there is packing room for honey separate from processing activities and storage?	
23	Is there adequate integrated storage facility for finished honey? Specify type of storage, purpose, number of storages and capacity of storage.	
<b>C.</b>	<b>Information about personnel</b>	
33	Number of veterinarian/ technologists and available in the establishment	
34	Name, designation, qualifications and experience of the personnel qualified and responsible for developing, implementing and maintaining HACCP-based procedures.	
35	Name, designation, qualifications and experience of the veterinarian(s) and technologist(s) supervising the processing and other related operations	
36	Name, designation, qualifications and experience of the qualified personnel, conducting microbiological and chemical analysis	
37	Number of supervisors apart from the above, responsible for processing and handling of food products and maintenance of sanitation and hygiene in the establishment and honey production separately.	
38	Number of male workers in the processing establishment in each shift.	
39	Number of female workers in the processing establishment in each shift.	

<b>Section-II: PRIMARY PRODUCTION AND RAW MATERIAL</b>		
<b>A</b>	<b>Hygiene Provisions and record keeping in Honey Production and handling</b>	
1(i)	Whether the establishment has identified bee keeping farms/collection centres ?	
(ii)	Are bee keeping farms/collection centres owned or contracted by the establishment?	
(iii)	Whether the details of all bee keeping farms/collection centres supplying raw honey provided?	
(iv)	Are infected bee hives or suspected of being infected, isolated to avoid other bee hive's honey?	

(V)	Are bee hives/bees undergoing medical treatment and likely to transfer residues to the honey identified & not used for human consumption?	
Vi)	Is there any infrastructure for educating farmers for clean & wholesome honey production?	
Vii)	Are there any incentive given to the farmers for clean & wholesome honey production?	
<b>B</b>	<b>Requirement for Premises &amp; Equipment</b>	
1	Are there adequate measures to protect honey production against any contamination?	
2	Is the premise for storage of honey protected against vermin and have adequate separation from premises?	
3.	Are the surfaces of equipment that are intended to come into contact with honey (utensils, containers etc.) washable and non toxic?	
4	Are the Bee keeping farms/ honey collection centre under supervision/controls of the unit to ensure the wholesomeness of the raw honey procured?	
<b>C.</b>	<b>Hygiene During honey collection and transport</b>	
1	Are there adequate measures to control contamination arising from the air, soil, water, feed, fertilizers, veterinary medicinal products and biocides and the storage, handling and disposal of waste in honey production and associated operations?	
2	Are there controls to prevent use of prohibited antibiotics/pharmacological substances and Chemicals?	
3	Are there adequate measures relating to animal health and welfare that have implications for human health, including programmes for the monitoring and control of diseases and bee parasites in honey production and associated operations?	
4	Is there cleaning and where necessary, disinfecting of facilities used in connection with raw honey production and associated operations, including facilities used to store and handle honey?	
5	Is there cleaning and where necessary, disinfecting of container, utensils, tanks etc. intended for transporting raw honey ,	
6	Is the water used potable or clean, where necessary, to prevent contamination?	
7	Are the personnel trained on health risks and the personnel, handling raw in good health?	
8	Is there prevention of animals and pests from causing contamination?	
8	Is the waste and hazardous material handled and stored properly to prevent contamination?	

9	Is there prevention of the introduction and spreading of contagious diseases transmissible to humans through food, including taking precautionary measures when introducing species of bees and reporting suspected outbreaks of such diseases to the competent authority	
10	Are the samples (water, honey, etc.) drawn for relevant analyses that have importance to human health and records maintained?	
11	Are there appropriate actions on account of the results of any relevant analysis carried out on samples taken from the bee hives or collection centres or other samples that have importance to human health?	
12	Is there correct use of veterinary medicinal products?	
13	Is there appropriate remedial action when informed of problems identified during official controls?	
14	Are there records relating to measures put in place to control hazards in an appropriate manner?	
15	Are there records of nature and origin of floriculture fed to the honey bees?	
16	Are there records of veterinary medicinal products or other treatments administered to the bees, dates of administration and withdrawal periods?	
17	Are there records of the occurrence of diseases that may affect the safety of honey?	
18	Are there records of other relevant reports on checks carried out on raw honey?	
19	Is honey from beehives showing clinical signs of bee disease/parasites used for human consumption?	
<b>D</b>	<b>Staff Hygiene</b>	
1	Does person performing collection of raw honey wear suitable clean clothes, gloves and maintain high degree of personal hygiene and is medically fit for the purpose?	
2.	Are there suitable facilities near place of Bee Keeping farms/collection centres for washing hands and arms?	

<b>Section-III: GENERAL HYGIENE REQUIREMENTS</b>		
<b>A.</b>	<b>General requirements for premises and infrastructure</b>	
1.	<b>Premise</b>	
(a)	Whether it has defined curtilage and roads around the building concreted or tarred or turfed?	
(b)	Is it kept clean and maintained in good repair and free from swamps, stagnated water, dumps, rodent harbourage, other animals, environmental contaminations like smoke, objectionable odours, dust, etc., etc.?	

2.	<b><u>Layout, design, construction, location and size of food premises:</u></b>	
(a)	Does it permit adequate maintenance, cleaning and/or disinfecting, avoid or minimize air-borne contamination and provide adequate working space to allow for the hygienic performance of all operations?	
(b)	Does it protect against the accumulation of dirt, contact with toxic materials, the shedding of particles into food and the formation of condensation or undesirable mould on surfaces	
(c)	Does it permit good food hygiene practices, including protection against contamination and, in particular, pest control	
(d)	Where necessary, does it provide suitable temperature-controlled handling and storage conditions of sufficient capacity for maintaining food at appropriate temperatures and designed to allow those temperatures to be monitored and, where necessary, recorded.	
(e)	Is it kept clean and maintained in good repair and condition?	
3	<b><u>Lavatories</u></b>	
(a)	Are there an adequate number of flush lavatories available and connected to an effective drainage system?	
(b)	Are the lavatories opened directly into rooms in which food is handled?	
4	<b><u>Washing facilities:</u></b>	
(a)	Are there an adequate number of washbasins available, suitably located and designated for cleaning hands at all entry points and in food handling areas?	
(b)	Are the washbasins for cleaning hands provided with hot and cold running water, materials for cleaning hands like detergent, disinfectant, etc. and for hygienic drying e.g. single use towels?	
(c)	Are the facilities for washing containers separate from the hand-washing facility?	
(d)	Are there feet disinfections facilities like foot dip provide, wherever applicable?	
5	<b><u>Ventilation:</u></b>	
(a)	Is there suitable and sufficient means of natural or mechanical ventilation?	
(b)	Is the mechanical airflow from a clean area to a contaminated area?	
(c)	Are the ventilation systems constructed as to enable filters and other parts requiring cleaning or replacement, readily accessible?	
6	Do the sanitary conveniences have adequate natural or mechanical ventilation?	
7	Do the premises have adequate natural and/or artificial lighting?	
8	<b><u>Drainage facilities</u></b>	
(a)	Are they adequate for the purpose intended?	
(b)	Are they designed and constructed to avoid the risk of contamination.	
(c)	Where drainage channels are fully or partially open, are they designed as to ensure that waste does not flow from a contaminated area towards or into a clean area, in particular an area where foods likely to present a high risk to the final consumer are handled?	
(d)	Is there adequate slope to drains ?	
(e)	Are open drains covered by grids?	

9	<b><u>Change room facilities</u></b>	
(a)	Are adequate separate changing facilities (change room and facilities therein), where necessary, provided for personnel handling raw material, unprocessed products and processed products?	
(b)	Is there separate facility for male and female workers?	
(c)	Whether changing room facility is integrated into the plant layout properly?	
(d)	Does the changing room have smooth walls, floors and washbasins with soaps, disposable towels, nail brushes and non-hand operable taps?	
(e)	Whether there is arrangement for	
i)	Change of footwear	
ii)	Keeping street clothes separately	
iii)	Lockable cupboards	
iv)	Collection of soiled working clothes	
v)	Gumboots	
vi)	Headgear and wherever necessary gloves/ mouth cover	
(f)	Is there suitable in-house arrangement to launder the working clothes of the workers?	
10	Is there storage for cleaning agents and disinfectants in areas where food is not handled?	
<b>B.</b>	<b>Specific requirements in rooms where foodstuffs are prepared, treated or processed</b>	
11	Design and layout to permit good food hygiene practices, including protection against contamination between and during operations	
(a)	<b><u>Floor</u></b>	
i)	Are the surfaces maintained in a sound condition and easy to clean and, where necessary, to disinfect?	
ii)	Is it impervious, non-absorbent, washable and non-toxic materials or appropriate to prevent contamination?	
iii)	Do they allow adequate surface drainage?	
(b)	<b><u>Walls</u></b>	
i)	Are the surfaces maintained in a sound condition and are easy to clean and, where necessary, to disinfect?	
ii)	Is it impervious, non-absorbent, washable and non-toxic materials or appropriate to prevent contamination and does have a smooth surface up to a height appropriate for the operations?	
(c)	<b><u>Ceiling</u></b> : Are the ceilings (or, where there are no ceilings, the interior surface of the roof) and overhead fixtures constructed and finished so as to prevent the accumulation of dirt and to reduce condensation, the growth of undesirable mould and the shedding of particles?	
(d)	<b><u>Windows and other openings</u></b>	
i)	Are they constructed to prevent the accumulation of dirt?	
ii)	Are those, which can be opened to the outside environment, where necessary, fitted with insect-proof screens, which can be easily removed for cleaning?	
iii)	Are, where open windows would result in contamination, kept closed and fixed during production?	
(e)	Are the <b><u>doors</u></b> easy to clean and, where necessary, to disinfect and have smooth and non-absorbent surfaces or appropriate to prevent contamination?	
(f)	<b><u>Surfaces (including surfaces of equipment)</u></b>	

i)	Are, in areas where food is handled and in particular those in contact with food maintained in a sound condition and are easy to clean and, where necessary, to disinfect?	
ii)	Are these smooth, washable corrosion-resistant and non-toxic materials or appropriate to prevent contamination	
12	<b>Cleaning facilities</b>	
i)	Are adequate facilities provided, where necessary, for the cleaning, disinfecting and storage of working utensils and equipment?	
ii)	Are these facilities constructed of corrosion-resistant materials, easy to clean and do they have an adequate supply of hot and cold water?	
iii)	Do the every sink or other such facility provided for the washing have an adequate supply of hot and/or cold potable water and kept clean and, where necessary, disinfected?	
iv)	Are the cleaning agents and disinfectants are stored separately under lock and key?	
<b>C</b>	<b>Transport</b>	
13	Are the conveyances and/or containers used for transporting honey kept clean and maintained in good repair and condition to protect food from contamination and are, where necessary, designed and constructed to permit adequate cleaning and/or disinfection?	
14	Are the receptacles in vehicles and/or containers used for transporting anything other than food where it may result in contamination?	
15	Are the conveyances and/or containers, where used for transporting anything in addition to food or for transporting different foodstuffs at the same time, has effective product separation?	
<b>D</b>	<b>Equipment requirements</b>	
16	Are all the articles, fittings and equipment with which food comes into contact	
(i)	effectively cleaned and, where necessary, disinfected at a frequency sufficient to avoid any risk of contamination?	
(ii)	constructed, of such materials and kept in such good order, repair and condition as to minimize any risk of contamination?	
(iii)	with the exception of non-returnable containers and packaging, constructed, of such materials and kept in such good order, repair and condition as to enable them to keep clean and, where necessary, disinfected?	
(iv)	installed in such a manner that does allow adequate cleaning of the equipment and the surrounding area?	
17 (i)	Is equipment, where necessary, fitted with an appropriate control device such as time, temperature, pressure, flow rate, etc. ?	
(ii)	Are the process control equipment and devices calibrated at regular intervals?	
18	Are the chemical additives, where have to be used to prevent corrosion of equipment and containers, used in accordance with good practice?	
<b>E</b>	<b>Food waste</b>	
19	Are the non-edible by-products and other refuse removed as quickly as possible from rooms where food is present so as to avoid their accumulation?	
20	Are the non-edible by-products and other refuse deposited in closable containers or any other appropriate foot operable container to prevent contamination?	

21	Are the containers made of an appropriate construction, kept in sound condition, easy to clean and, where necessary, to disinfect? 22 (i)	
	Is there adequate provision made for the storage and disposal of food waste, non-edible by-products and other refuse?	
(ii)	Are the refuse stores are designed and managed in such a way as to enable them to keep clean and, where necessary, free of animals and pests?	
23	Is all waste eliminated in a hygienic and environmentally friendly way in accordance with state pollution control board's consent and does not constitute a direct or indirect source of contamination?	
<b>F</b>	<b>Water supply</b>	
24 (i)	Is there documented water management system? Are the outlets identified and serially numbered in the plumbing layout diagram?	
(ii)	Is the water tested as per 98/83/EC or IS:4251 for potability, as applicable?	
25	Is there adequate supply of potable water, which is used whenever necessary to ensure that foodstuffs are not contaminated ( <i>clean water may also be used for external washing</i> )? What is the method of treatment?	
26 (i)	Is the non-potable water circulated in a separate duly identified system, where it is used for fire control, steam production, refrigeration and other similar purposes?	
(ii)	Is the non-potable water connects with, or allows reflux into, potable water systems?	
27 (i)	Is the recycled water used, if any, in processing or as an ingredient presents a risk of contamination?	
(ii)	Is it of the same standard as potable water, acceptable to the competent authority and will not affect wholesomeness of the foodstuff in its finished form?	
28	Is the steam used directly in contact with food likely to contain substance that presents a hazard to health or likely to contaminate the food?	
29 (i)	Is there appropriate measure to prevent contamination through back suction?	
(ii)	Is water storage tank easily cleanable and protected from outside contamination? State frequency of cleaning water tanks.	
<b>G</b>	<b>Pest control</b>	
30(i)	Are adequate documented procedures in place to control pests?	
(ii)	Whether bait map showing serially numbered bait stations provided?	
(iii)	Are adequate procedures in place to prevent domestic animals from having access to places where food is prepared, handled or stored?	
<b>H</b>	<b>Maintenance</b>	
31	Is there appropriate maintenance schedule for maintaining infrastructure and equipment facilities and records thereof?	
32	Whether all equipment labelled and marked?	
<b>I</b>	<b>Training</b>	
33	Are the food handlers supervised and instructed and/or trained in food hygiene matters commensurate with their work activity?	
34	Have the persons those responsible for the development and maintenance of the procedure for the operation of relevant guides received adequate training in the application of the HACCP principles?	

35	Are the persons those responsible for compliance with the requirements of national law trained?	
<b>J</b>	<b>Testing facility</b>	
36	Is there in-house testing facility for analysis of raw materials, in-process samples, finished products, hygiene and sanitation control samples, etc.?	

**Section-IV: Any other relevant information:**



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Commissioned by:

