



A Joint Workshop on

Quality Requirements in Honey Value Chain

Organized by

**Standardization, Metrology, Testing and Quality Assessment
(SMTQ) Forum, Nepal**

In collaboration with

**Support to Nepal in the field of Quality Infrastructure implemented by
Physikalisch-Technische Bundesanstalt (PTB)**

And

GTZ/Private Sector Promotion Project

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**Hotel Himalaya, Pulchowk, Lalitpur
Kathmandu**

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Executive Summary

The following report is a basic outline of the proceedings of the workshop on Quality Requirements in Honey Value Chain organized by Standardization, Metrology, Testing and Quality Assessment (SMTQ) Forum Nepal with the support of Nepalese-German Technical Cooperation Project “ Support to Nepal in the field of Quality Infrastructure” implemented by Physikalisch-Technische Bundesanstalt (PTB) and GTZ/Private Sector Promotion Project. The workshop was held on 14th February in Kathmandu with the objective to identify the issues relating to quality infrastructure taking honey value chain as an example. The specific objectives of the workshop were:

- To identify quality-related aspects in the honey value chain (standards+ testing + certification requirements + quality monitoring, etc.)
- To analyse the gaps and needed services
- To formulate the necessary further actions for assuring quality in value chain

The workshop was comprised of 3 sessions; 1) opening session that included opening remarks from the Chief Guest -Mr. Tek Bahadur Thapa, Secretary of Ministry of Agriculture and Cooperative and other dignitaries 2) Technical sessions that comprised three presentations and floor discussion, 3) Group work to identify the gaps in quality along the value chain, activities needed to fulfill the gaps and actor who can take care of the issue.

A total of 17 honey entrepreneurs and 34 representatives of government department and development agencies participated in the workshop. All of them participated actively during the plenary presentation and small group discussion. The list of participants is presented as an Annexure 1.

The workshop provided a detailed overview of the quality requirements at different level of value chain and suggested actions to be undertaken by actors themselves and the supporting agencies. The findings of the workshop provided an interesting outlook towards potential cooperation among existing service providers (DFTQC, NBSM, Private Laboratories, Beekeepers Association/Network) and the actors of the honey value chain (beekeeping equipment suppliers, beekeepers, honey processors and traders).

Introduction

Honey is one of the few products having direct impact on the economy of rural folks. It has high value as nutritious food and medicine, and is a good source of income for the small landholders and disadvantaged groups. Owing to its unique topography and great diversity of honeybees and floral resources, Nepal produces wide variety of specialized honey. However, at present, the market is the biggest constraint on the honey sub-sector in Nepal. The domestic market is very limited and the cost of honey production is quite high, which makes it difficult to compete for mass marketing. Though there is a good demand for specialty Nepali honey in EU and East Asia but due to the stringent rules and conditions set by honey importing countries, Nepali entrepreneurs do face lot of difficulties in exporting honey from Nepal. At present, Nepal is not on the list of developing countries from which the EU allows the import of honey (Council Directive 2004/432/EC). Another constraint on the export of honey is the requirement of importing countries of a test certificate from an internationally recognized accredited laboratory for necessary quality attributes along with antibiotics, pesticide residues and heavy metals content. At present, there is no Nepalese National Residue Monitoring and Control Plan in place, nor are adequate laboratory facilities available in Nepal under the single roof to test required quality parameters.

Besides honey, there are many other such areas where Nepalese traders do come across quality related problems. To solve these problems in the present context of global free trade and WTO regime, it has become absolutely important that the quality of the product and service is assured. And, quality can only be assured when there is a well-developed Quality Infrastructure (QI) in place. An effective quality infrastructure ensures that it has the access to international standards, technical regulations, guaranteed measurements, and a system of accreditation in testing, inspections and certifications including documented proof for conformity assessment procedures. All of these QI components cannot be addressed by any single entity and are the responsibility of the multiple disciplines at public and private. However, at the moment, institutionalized cooperation and coordination among QI service providers along with private organizations are very much lacking. It was therefore envisaged that a quality forum at the national level should be established in order to work as a push group or as a catalyst or as a mediator among different QI actors to establish effective quality infrastructure in Nepal and also, to advocate for the formulation of national quality policy followed by establishment of Quality Council to make decision on strategic quality issues. Accordingly, the forum aims to provide common platform for different relevant stakeholders, for the inter-linkage and coordination among them and to strengthen resource and information sharing for the benefit of all.

In this context, "**Standards, Metrology, Testing and Quality Assessment Forum Nepal**"; in short, "**SMTQ Forum Nepal**" has been registered to facilitate networking among the organizations involved in quality related matters. This forum is an independent, non-political, non-profit, non-stock and purely technical advisory body. It comprises national level experts or professionals who are very much dedicated, interested, and committed for the development of Quality Infrastructure in Nepal.

SMTQ Forum Nepal with the support from PTB project "Support to Nepal in the field of Quality Infrastructure" and GTZ/ Private Sector Promotion Project has organized one-day workshop in Kathmandu, Nepal. The main purpose of the workshop was to identify the issues relating to quality infrastructure taking honey value chain as an example.

Objectives

The objectives of the workshop are:

- Identification of quality-related aspects in the honey value chain (standards+ testing + certification requirements + quality monitoring, etc.)
- Analysis of gaps and needed services
- Formulation of necessary further actions (who can do what at different level of value chain; how the technical cooperation can support the service providers like NBSM, DFTQC, etc. to develop or improve user-oriented QI services; and how the actors in the value chain really use these services like standards, testing, calibration, etc. for their benefit.)

Participants

The workshop has involved key stakeholders including development agencies supporting honey sub sector, honey traders, beekeepers association and network, institutions related to Quality Infrastructure as well as GTZ/PSP and PTB professionals. A total of 17 honey entrepreneurs representing different level of value chain and 34 participants from government department and development agencies attended the workshop. The list of participants is presented as an Annexure 1.

Session I: Opening Remarks

Speakers:

Mr. Tek Bahadur Thapa, Secretary, Ministry of Agriculture and Cooperatives
Mr. Uttam Bhattarai, Director General, Department of Food Technology & Quality Control
Dr. Sita Ram Joshi, Officiating Director General, Nepal Bureau of standards & Metrology
Dr. Clemens Sanetra, PTB- Consultant
Mr. Poorna Prasad Manandhar, President, SMTQ Forum Nepal
Mr. Gopal Prasad Kafle, President, Apiculturists' Network Nepal

The workshop started with some welcoming words from Mr. Manandhar, President of SMTQ Forum Nepal. While welcoming all participants to the workshop, Mr. Manandhar provided a brief overview of SMTQ Forum and highlighted the need of organizing this workshop.

Director General of NBSM, Dr. Sita Ram Joshi elucidated NBSM's commitment towards developing quality infrastructure for assuring food safety and hygiene. In his statement, he emphasized the need of having effective networking and cooperation for the development of quality parameters and a national proficiency testing (PT) system. He also outlined the importance of strengthening the National Quality Policy and institutional set up of NBSM.

Mr. Uttam Bhattarai, Director General, DFTQC thanked the organizers for holding the workshop. He highlighted the quality issues need to be addressed for getting market access for honey in the European countries and shared the progress so far made by DFTQC in the field of quality

monitoring. He also shared the information on the existing bi-lateral support to DFTQC, and explicated the importance of adhering to quality.

Dr. Clemens Sanetra expressed his happiness about the level of sensitization and awareness about the quality infrastructure among the leading government departments; NBSM and DFTQC and congratulated SMTQ Forum for getting it registered within a short period of time. He pointed out some of the challenges that need to be addressed in the field of QI.



Secretary of MOAC addressing the workshop

Mr. Tek Bahadur Thapa, Secretary of the MoAC shared his fascinating experiences working with honeybees and highlighted the multi-purpose utility of honey and other bee products. He also explained the importance of quality, especially, given the context of WTO (World Trade Organization) requirements that Nepal needs to comply with. On behalf of the ministry, Mr. Thapa ensured to fully support any quality related technical assistance to DFTQC.

Mr. Gopal Prasad Kafle, President of Apiculturists' Network Nepal thanked the organizers for providing opportunity to him to chair the opening session. He expressed his happiness about the involvement of GTZ and PTB for upgrading quality infrastructure in Nepal, which in his opinion will help to get market access for honey and other products.

Session II: Technical Presentations

Following a tea/coffee break and some informal interactions, three technical presentations were made.

Dr. Surendra Raj Joshi provided an overview of honey sub sector in Nepal. His presentation looked into the status of beekeeping and honey production, the major issues faced by the honey entrepreneurs, the routes/channels followed by honey, the value chain perspective of quality management, the quality requirements at different level (inputs, production, processing, trade, consumption) of value chain. His presentation is attached as Annex 2a.

The second presentation was done by Dr. Clemens Sanetra, Consultant for PTB. He explained that for food safety and hygiene, products need to comply with the quality parameters set both at national as well as international level. There are numerous areas that need to be looked at when we talk about quality. Setting of standards is one of the tasks but for its enforcement there is a need to perform lot of task. Free Trade Agreements within the parameters of WTO regulations has outlined the need for technical competence, standardization, accreditation and traceability. Therefore, international requirements for successful participation in global trade revolve around Metrology, Standardization, Testing, and Quality Management. Be it for honey

or any other food commodities there are quality parameters that must be defined and tested with proficiency and accuracy to ensure customer protection as well as satisfaction.

The third presentation was made by Mr. Poorna Prasad Manadhar on current status of SMTQ in Nepal. His presentation looked in to areas such as what are the quality standards set for honey in Nepal; whether they comply with Codex and EU; what are the requirements for exporting honey to the EU, what quality infrastructures available in the country and who is doing what. His presentation showed it clearly that the mandatory standards set by DFTQC do not even correspond with the voluntary standards set by NBSM. It is interesting to note here that some of the quality parameters set by NBSM are more flexible than DFTQC (Annex 2c).



Mr. Manandhar presenting the technical paper on SMTQ

Comments and suggestions on technical presentations

There were number of comments and suggestions from the floor to the technical paper presenters. Some of the comments made by the participants were related to quality infrastructure while others related to coordination and networking.

Mr. Rabindra Adhikari, Vice President of Federation of Nepal Bee Keepers (FNBK) asked for the more details about the roles and responsibilities of SMTQ Forum and raised concern whether there is a possibility for FNBK to collaborate with SMTQ Forum.

Ms. Kanti Shrestha asked whether there is a possibility to set honeybee species specific standards for different honey. She also raised concern about the test methods for honey, which are labeled as unifloral honey, high altitude honey and so on.

Mr. Ganesh Dawadi from DFTQC asked what could be the types of honey that can be sold as niche product in the European market.

Technical presenters provided feedback to the queries made by the participants.

Session III – Group Work and Discussions

The afternoon was dedicated to the group work (Annex 3). The participants were divided into three groups, and a presenter was selected from each respective group to present the findings during the closure of the workshop. The groups worked around three lead areas:



Participants working in a small group

1. What are the gaps in quality infrastructure? Please identify them.
2. What are the actions required to ensure those gaps are fulfilled (what needs to be done)?
3. Who will take responsibility to carry out the activities and by when activities should be accomplished?

Working Group I – Actors working at the lower end of the value chain

Presenter – Mr. Laxmi Prasad Kharel

The participants of this group included the beekeepers, members of beekeepers cooperatives and federation and representative of organization promoting beekeeping. The issues discussed in the group were about beekeeping (colony management, feeding sugar syrup, provision of beekeeping equipment and use of medicines to control mites and diseases if required, migration of colonies, etc), harvesting of honey and primary processing (filtration, removal of excessive moisture etc). The result of group work is reflected in the below picture and also presented in Table 1:



Table 1: Working group-1 (beekeeping + processing + input supply)				
SN	Specific gaps	What can be done	Who could do it	By when
1	Bee keeping tools are not steel & food grade	Setting up of standards and monitoring plan; its enforcement; awareness campaign	NBSM, DFTQC for setting standards and monitoring plan and its enforcement	1 year
2	Comb foundation sheets are not always made out of pure bee wax		DOA (BDS, DADO, FNBK, Cooperatives, API-NET , Beekeeping Resource Centre for enforcement and awareness campaign	
3	List possible enamels used in hives is not available			
4	Thickness of the hives is not appropriate (less than 1-inch)			
5	Use of iron wire in the frame		2 year	
6	Use medicines and antibiotics	Inventory & guidelines required	DFTQC/NBSM(guidelines + Standards)	1 year
		Promotion of mechanical and biological control	DOA, FNBK, Cooperatives, API-NET	
7	Honey harvesting also from brood chamber and unsealed honey comb	Awareness, skill development	DOA, FNBK	
8	Pesticide use on bee forage	Awareness and enforcement of pesticide regulation	DOA(pesticide.reg.off) for inventory of pesticides etc	
9	Low quality feeding	Guidelines, Standards, Awareness and skill development	DFTQC (main responsible), NBSM,DOA, FNBK, Cooperatives, API-NET for guidelines and standards	
10	Honey harvest in open space		DOA (BDS, DADO, FNBK, Cooperatives, API-NET , Beekeeping Resource Centre for awareness	1 year
11	Honey squeezing			
12	Storage conditions are not suitable, poor bulk packing	Establishment of collection centres, laboratories and storage facilities	DOA, Cooperatives, DFTQC	1 year
13	Excessive moisture	Residue monitoring program	DFTQC	1 year
14	Overheating while processing	Quality container	DOA, FNBK, API-NET, Cooperatives, Resource centres	1 year
15	Lack of technical knowledge	Technical services and COC		
16	Lack of quality awareness			

Working Group II- Actors working at the upper level of Value Chain
 Presenter – Ms. Mahalaxmi Shrestha

The participants of Group II included honey processors and traders. The group discussed the issues of quality pertaining to honey processing, labeling, packaging, storage and marketing. The results of the group work are presented in the table below:



SN	Specific gaps	What can be done	Who could do it	By when
1	Lack of GMP, GBP/GAP, SOP	Code of conduct to be established(national)for GMP(G.P.P) GBP/GAP	API_NET,NBSM,DFTQC,FNBK, NBCCU	within 6 months
2	Type of packing + labeling (there are no guidelines)	Standardization of packaging and labeling	DFTQC,NBSM,FNBK,NBCCU,A PI-NET	within 1 year
3	Quality assurance mechanism(before procurement)	Access to cost effective quality analysis lab(on regional level)	Regionally established labs(set up-with coordination of API-NET,FNBK,NBCCU,other private stakeholders)	within 1 year
4	Lack of marketing	Creation of public awareness (on the benefits of honey, packaging, etc.)	VC actors, Government of Nepal (TPC etc)	within 6 months
		Participation n Organizing in National & international trade fair		
		advertisements for domestic and the international markets		
5	To focus on Niche markets (for exports) e.g. Chiuri, Himalayan/organic honey	export promotion & organic certification	VC actors + all related government agencies	within 1 year
6	To improve market access to the bee farmers to reduce production cost	Agro-Pro Construction	Departments of ROADS, National & private airlines	within 1 year

Working Group III- Service providers

Presenter- Ganesh Dawadi

Group III included the participants who represent the service providing organizations like, NBSM, DFTQC, NAST, SMTQ Forum and Private Laboratories. They discussed the constraints along the value chain from production to consumption. The group identified various constraints and suggested some actions to be taken within certain time frame. The findings of the group as reflected in the picture below are given in Table 3:



Table 3: Service providers (NBSM, DFTQC, private laboratories, etc)			
SN	What can be done	Who can do it	By when
1	Harmonization of standard and technical regulation with CAC	NBSM/DFTQC	Jun-08
2	Manpower, equipments and training upgrading	NBSM/DFTQC	two years in 1st phase & contineous improvement
3	Capacity enhancement of public and private lab(human resource and equipments)	DFTQC/DOA/SMTQ forum+ stakeholder	
4	Finalize the plan and proceed forward	Ministry of General Administration and Ministry of Finance	Dec-08
5	Double track system and vertical career development	SMTQ Forum	May-08
6	Coordination and cooperation among laboratories for reference samples, methods, proficiency testing	MOICS/MOAC + NPC	Dec-08
7	National quality policy has to be developed	DFTQC/DOA(IUCN/Dept.of plant resources)	Start by APRIL 2008
8	Data-base establishment	NBSM	Start by MARCH 2008
9	Preparation of conformity assessment and SOP	DFTQC,Beekeepers association(coordinated by DFTQC)/API-NET	Start by MARCH 2008
10	Establishment of documentation system at different levels	SMTQ Forum	To start by MAY 2008
11	Awareness creation with respect to quality assurance	All stakeholders	On-going

The group works were presented in the plenary for further discussions and consensus building.

Closing Remarks

Dr. Clemens Sanetra, Mr. Poorna P. Manadhar and Dr. Surendra Joshi made the closing remarks. There was a clear message emphasizing on the need for follow up of the action plan developed. Dr. Sanetra made it clear that the major responsibility lie on the actors of value chain, particularly to their network and association (API-NET Nepal, FNBK and CUBC) to assure the implementation of the action plan. Mr. Manadhar assured the participants that SMTQ Forum will facilitate coordination among existing laboratories for exploring inter-lab testing possibilities and extending for partnership and cooperation between donors and supporting agencies.

When closing the session, Dr. Surendra Joshi expressed his thank and gratitude on behalf of the organizers to all participants for their lively participation and making the workshop a success. Dr. Joshi also promised to circulate the proceedings among the participants and organize next meeting to follow up of the workshop.

Workshop Evaluation

The workshop provided a platform for honey entrepreneurs and professionals working in the field of QI in Nepal to interact and share about possibilities of joining hands to assure food safety and hygiene. The level of commitment made by the service providing organizations and the operators of honey value chain was worth to appreciate. Within a short period of time the participants have come up with some brilliant ideas and concrete action plan which would surely help to address the issue related to quality of honey and other agricultural products.

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Annex 1: List of Participants

SN	Name	Organization
A. Honey Entrepreneurs		
1	Mr. Daya Sagar Subedi (Sagar honey)	Sagar Beehive Industries Gaidakot, Nawalparasi Tel: 056-501156
2	Ms Mahalaxmi Shrestha (Pure honey)	The Beekeeping Shop Kumaripati Kathmandu Tel: 5547278
3	Mr. Dev Bahadur Gurung (Gandaki honey)	Gandaki Bee Concern Gongabu Kathmandu Tel: 4351093
4	Mr. Pawan Satyal	Garden Apiary Kathmandu Tel: 4372872
5	Hira Karki	Saran San Business Group Naxal, Kathmandu
6	Mr. Pramod Aryal, Chairperson	Namuna Beekeeping Cooperative Chitwan
7	Mr. Prem Sing (Natural pure honey)	N. Stone Bee Concern Lalitpur Tel: 5523853
8	Gyanendra Neupane	General Secretary, Central Union of Beekeepers Cooperative
9	Mr. Laxman Shrestha	Everest Herbs, Kathmandu, Nepal
10	Mr. Jaya Pradhan	Everest Herbs, Kathmandu, Nepal
11	Mr. Yubraj Shrestha	Shiva Shakti Beekeeping and Honey Products Bharatpur 10, Chitwan Tel: 520286
12	Mr. Rabindra Adhikari	Lekhnath Beekeepers Cooperative Tel: 9846036978
13	Mr. Ram Prasad Poudel	General Secretary, Federation of Nepal Beekeepers, Bharatpur, Chitwan
14	Sanjib Pokhrel	President, Fédération of Nepal Beekeepers, Bharatpur, Chitwan
15	Mr. Ganesh Basnet	President, Central Beekeepers Cooperative Union, Bharatpur, Chitwan
16	Mr. Dhruvatar Lamichhane	Dainty Honey Chitwan Tel: 9855058155
17	Hem Raj Devkota	Sagarnath Beekeepers Cooperative, Bhaktipur 2, Sarlahi
B. Subsector supporting agencies		
18	Dr. Dev Bhakta Shakya	Agro Enterprise Center FNCCI Building, Teku

		Kathmandu Tel: 4262260, 4262245
19	Mr. Laxmi Kharel	Beekeeping Development Section Godavari Tel: 5560738
20	Dr. Sita Ram Joshi	Officiating Director General NBSM
21	Mr. S. Subedi	NBSM
22	Mr. Gajendra K. Poudel	NBSM
23	Mr. L P Gupta	NBSM
24	Mr. Kul Prasad Sapkota	Standards Division NBSM
25	Mr. K B Shahi	NESS laboratory
26	Dr. Kanti Shrestha	Senior Scientist, NAST Khumaltar, Kathmandu
27	Mr. Gopal Prasad Kafle	President, Api-Net Nepal Kumaripati
28	Mr. Min Bahadur Gurung	ICIMOD Honeybee Project Khumaltar Tel: 5525313
29	Mr. Uttam Bhattarai	Director General DFTQC Babarmakhal
30	Mr. Ganesh Dawadi	Senior Food Research Officer DFTQC Babarmahal Tel: 4262741
31	Mr. Poorna P. Manandhar	SMTQ Forum
32	Mr. Rajendra Tuladhar	Laboratory
33	Dr. T B Karki	Former DG, DFTQC
34	Dr. T R Shakya	Department of Drug Control, Babarmahal, Kathmandu
35	Dr. Sri Krishan Shrestha	SMTQ Forum
36	Ms. Bhinu Shova Tuladhar	Forensic Laboratory, Khumaltar, Kathmandu
37	Dr. Iswar Lal Shrestha	Nepal Environment and Science Services Laboratory
38	Ms. Anu Joshi	GTZ/PSP
39	Ms. Dikchhya Bhattra	GTZ/PSP
40	Mr. Shameer Khanal	GTZ/PSP
41	Dr. Clemens Sanetra	PTB
42	Dr. Surendra Joshi	GTZ/PSP
43	Mr. Tek Bahadur Thapa	Secretary, Ministry of Agriculture & Cooperatives, Chief Guest for Opening Session

Annex 2: Technical Presentations

Annex 2a: Presentation of Dr. Surendra Joshi (Full presentation is available upon request)



An Overview of Honey Value Chain in Nepal

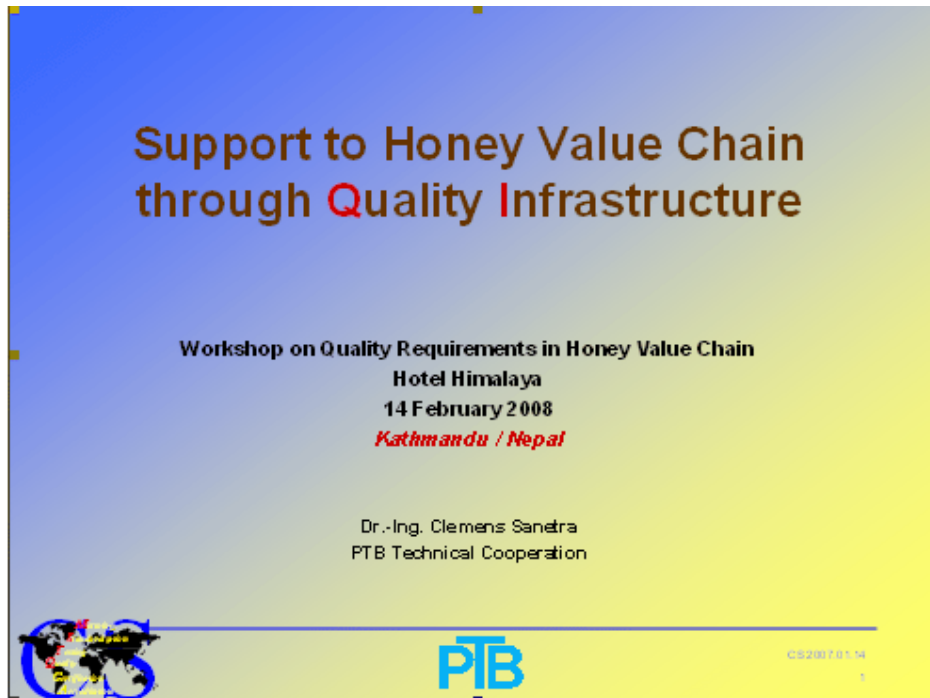


Surendra Raj Joshi

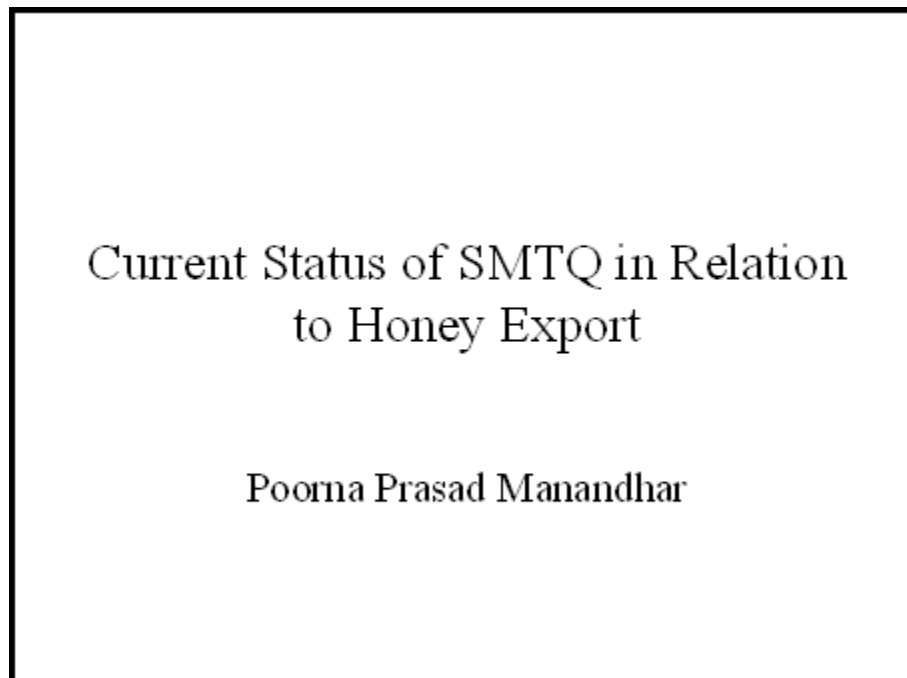
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Annex 2b: Presentation of Dr. Sanetra (Full presentation is available upon request)



Annex 2c: Presentation of Mr. Poorna P. Manandhar (Full presentation is available upon request)



Annex 3: Workshop Schedule

Time	Activities
Opening Session	
0930-0945	Registration & Welcome – Mr. Shameer Khanal, Workshop Facilitator
0945-0950	Objective of workshop and introduction to the Nepalese SMTQ Forum by Mr. Poorna P. Manandhar SMTQ Forum
0950-1000	Few words by Director General, NBSM
1000- 1010	Few words by Mr. Armin Hofmann, Programme Manager, GTZ/PSP-RUFIN & Dr. Clemens Sanetra, PTB
1010-1020	Few Words by DG, DFTQC
1020-1030	Opening Remark by Secretary, Ministry of Agriculture and Cooperatives
1030- 1040	Closing Remarks by Mr. G P Kafle, President, API-NET
1040-1100	Tea/coffee break
Technical Sessions	
1100 - 1125	An overview of honey value chain by Dr. Surendra Joshi
1125-1150	Quality Assurance in honey value chain by Dr. Clemens Sanetra
1150-1215	Current status of SMTQ in Nepal by Mr. Poorna P. Manandhar
1215 - 1245	Discussion
1245 -1300	Group formation to workout the strategy and to identify the required action
1300-1345	Lunch break
1345 - 1530	Group work
1530 -1545	Tea/coffee break
1545-1645	Presentation of group work & actions for the future
1645-1700	Closing of the workshop