THE HONEY VALUE CHAIN ANALYSIS:

CASE STUDY: SNV CENTRAL PORTFOLIO

(MOROGORO & DODOMA REGIONS)

BY

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ABSTRACT

This study examines honey value chain in SNV Central portfolio areas covered Morogoro and Dodoma regions. It draws from the experience of the Beekeepers from the districts of Morogoro rural, Mvomero and Kondoa.

The study specifically examines the key production, market constraints and opportunities within the value chain. It analyzes the existing market linkages and identifies the participants within the chain. The study also explores factors influencing the development of honey sub sector in the area.

A detailed account is made of the existing stakeholders involved in production, processing and marketing of bee products in the study area.

The honey value chain was very weak particularly in producer level and experiences many problems such as fragmentation, weak link among the stakeholders, low quantities, poor quality and other external factors like tariffs. Existing marketing channel is direct from the producers (beekeepers) to the consumers for food, for brewing local beer and medicinal purposes. There are no organized markets for collection and/or selling. More than 90% of honey produced is consumed locally.

The study winds up by assessing potential interventions that could be used to improve the honey value chain within the area, such as to build capacity to organisations dealing with honey production, assist natural resources department in the process of establishing beekeeping associations and facilitating linkage between producers, inputs and credits providers and other organisations.

DECLARATION

I, **MARIETHA ROMAN KASONGO**, do hereby declare to the Senate of Sokoine University of Agriculture that, this research paper is my own original work and it has not been submitted for a higher degree award in any other University

	30.03.2007
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The above declaration is confirmed

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Lastly I am grateful to all those who participated fully in completion of this work in which they are not mentioned by names.

DEDICATION

To my dear parents for the immense sacrifices and efforts they went through to ensure my success.

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ABBREVIATION

BDP	- Beekeeping Development Project
C.M.M.U.T	- Chama Cha Mazaingira na Maendeleo kwa Umma Tanzania
DAI PESA	- Development Alternatives Incorporated
DOBEC	- Dodoma Beekeeping Association
EPOPA	- Export Promotion of Organic Product from Africa
GNP	- Gross National Product
KOMLA	- 'Kopa Mzinga Lipa Asali'
KUBA	- Kondoa Union of Beekeeping development
MAMA	- Milama Anza Maendeleo
NBP	- National Beekeeping Programme
NGOs	- Non Government Organisation
PADEP	- Participatory Agriculture Development Program
PASS	- Participatory Agricultural Support Services
PFM	- Public Forest Management
PSD	- Private Sector Development
RLDC	- Rural Livelihood Development Company
SIDP	- Sustainable Industrial Development Policy
SNV	- Netherlands Development Organisation
SME	- Small and Medium Enterprise
SUA	- Sokoine University of Agriculture
TASAF	- Tanzania Social Action Fund
TBS	- Tanzania Bureau of Standards
URT	- United of Republic of Tanzania

CHAPTER ONE

1.0 INTRODUCTION

1.1 Back ground of SNV Organisation

SNV is a Netherlands – based, international development Organisation which works in more than 30 countries across the world. The Organisation provides capacity development services to local organizations working in developing countries to support their fight against poverty and promoting good governance.

In Tanzania SNV works in three zones (Portfolios): The northern zone covering Arusha, Manyara and Kilimanjaro regions, Central zone covering Dodoma and Morogoro regions and Lake zone covering Mwanza, Kagera, Mara and Shinyanga regions.

1.1.1 SNV mission

SNV is dedicated to a society where all people enjoy the freedom to pursue their own sustainable development. Our advisors contribute to this by strengthening the capacity of local organisations.

1.1.2 Organisation capacity

SNV Tanzania has selected good Governance, together with Market Access for Poor (MAP) as main themes of its advisory services; it assists organizations in diagnosing their current situation and improving their market position through internal and external change management. SNV assists clients externally by linking them to other service providers, market participants, and the partners. Typical expertise available within SNV includes: Micro finance, market linkages, business development, facilitation of advocacy and

lobbying, process facilitation, networking and linking, organizational strengthening, partnership building, coaching in the fields of planning, budgeting, monitoring and evaluation.

1.2 Background of the problem

Currently Tanzania has been concentrating on traditional crops like coffee, sisal cotton, cashew nuts, tobacco, tea and cloves as the major sources of foreign currency earning, with little emphasis on high value and competitive value chains. However it was noted that at the end of 2003, these traditional exports represented only about 20% of the value of goods exported from Tanzania. Other agricultural products which are grouped together like forestry products, livestock products, fish etc accounted for 46.6% (Yasoo, 2004). This reveals that traditional crops are no longer the only sector that can earn the bulk of foreign exchange.

Honey sub sector is one of examples of high value products in agricultural sector, which is non-traditional crop. It is non timber product, which can make quick wins and have low start up capital required. It can be marketed domestically as well as externally. It is a sustainable form of agriculture which is not detrimental to the environment. It is one of the examples in agricultural sector, which can be transformed from local production to the modern production. With involvement of all stakeholders including producers, processors, transporters, exporters etc honey sub sector can contribute a lot in the National Economy. In some countries like India it is the unique industry for development which supplements income to large numbers of rural people (Tripath 1998).

Beside of that importance of honey, there was very little exploitation of non timber forest products, including honey. Available reports had small information on opportunities and challenges of honey sub sector in relation to private sector. Many studies had been done on analyzing non traditional crops including fruits sub sector and oil seeds sub sector (SNV Portfolio team central, 2005), vegetables etc. However, little efforts have been done to develop the honey sub sector especially in Morogoro region.

Through this context SNV was encouraged to collaborate with private and public sectors to fulfill the millennium development goal of eradication of extreme poverty and hunger. This goal could be achieved through a sub sector market development approach (Competitive Value chain development approach), in which honey sub sector development could be one.

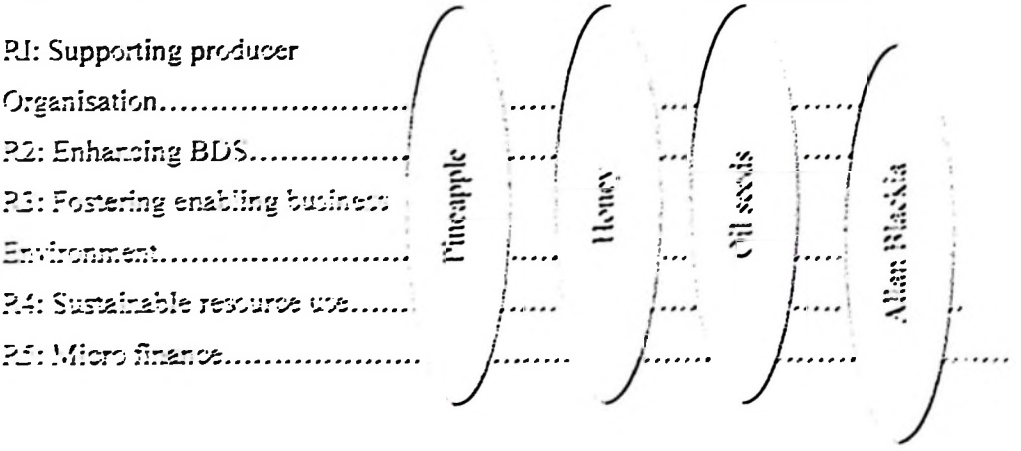
SNV Tanzania realized that, through its advisory support to different levels of private sector client organizations and their partners would contribute to increase in cash incomes to beekeepers in working areas.

1.3 Value chain development as a strategy in SNV areas

In Market Access for Poor (MAP) theme, promoting competitive and value adding market chain is one of the strategies that SNV use in order to achieve the impact area of sustainable production, income and employment for the poor. Other strategies are supporting producer associations, enhancing local business development for businesses, facilitating sustainable and inclusive resources use and facilitate access to financial services.

Based on sub sector selection for value chain development strategy made by the MAP advisors in SNV working areas; oil seeds, pineapple, honey and Allan Blackia Nuts chains was scored high rank and became priorities to intervene in SNV Central portfolio (see plate one value chain selection)

Figure 1: Value chain selection based on the SNV Central portfolio priorities



Keys: R1- R5 are strategies used by SNV to intervene certain chains.

According to the above diagram, R1 to R5 represent strategies in which SNV can collaborate with other development partners. For example by enhancing Business Development support SNV can collaborate with those business development sectors within the chains like Participatory Agriculture Support Services (PASS).

1.4 Goal of assignment

The goal of this assignment was to analyse the honey value chain in SNV central portfolio working areas, so that individuals, Community Based Organisations, development agencies and policy makers understand key of production, market constraints and opportunities within the honey value chain.

The assignment results were used to recommend SNV central portfolio the entry points to support their clients within its practice area that is to identify and support clients who perform a specific function within the honey value chain. The findings also will help other actors of development to design strategies for honey sub sector development.

1.5 Methodology

The assignment conducted by using sub sector analysis approach. It involved better understanding of sub sector farmers' key farm level production characteristics and establish the relevance of existing linkages between farm level decisions and the market structure. The approach used to identify constrains and opportunities for increasing the sub sector's productivity and identifying interventions to tap opportunities and reduces the constraints.

Detailed information was collected from Morogoro rural, Mvomero and Kondoa districts by holing discussions with beekeepers, organizations and different actors within the chain.

CHAPTER TWO

2.0 RESULTS OF ASSIGNMENT

2.1 Overview of Beekeeping activities in Morogoro and Dodoma regions

2.1.1 Morogoro region

Beekeeping activities in Morogoro seems to have come in the chart in the recently years. Table1 shows that the region had no single districts that even appear on the national map of honey producers in Tanzania. This may be due less and poor quality of honey production.

Table 1: High potential areas for honey and beeswax products

High producing area			Medium Producing Area			Un exploited areas		
District	Potential (Tons)	Actual (tons)	District	Potential (tons)	Actual (tons)	District	Potential (tons)	Actual (tons)
Kahama	4 000	500	Kondoa	3 000	300	Lindi	8 000	50
Mpanda	8 000	1 500	Kiteto	2 000	250	Songea	6 000	50
Sikonge	6 000	2 000	Babati	1 200	150	Iringa	5 000	40
Urambo	6 000	1 400	Kibondo	4 000	250	Biharamulo	4 000	15
Nzega	4 000	400	Handeni	3 000	150	Kasulu	4 000	5
Tabora	5 000	1 200	Kigoma	3 000	100	Newala	4 000	15
Chunya	6 000	400	Arumeru	1 500	100	Tunduru	4 000	15
Manyoni	8 000	600	Rufiji	2 500	50	Singida	3 000	5
Bukombe	5 000	800	Nkasi	1 500	50	Hai	2 500	5
Total	52 000	7 800		21 700	1 400		40 000	80

Source: National Beekeeping Programme, 2001.

2.1.2 Morogoro production trend

According to Morogoro Regional Profile (2002), production trend of honey with its relative's products was fluctuating year after year. More incremental seen in year 2000

when the production rose to higher amount of more than 75% compared to other past years (see table 2).

Table 2: Production trend for honey and beeswax in Morogoro region for 10 years.

Year	Modern hives	Traditional beehives	Beeswax Kgs	Tshs	Honey Kgs.	T.shs.
1993	1 419	11 570	3 800	NA	116 900	NA
1994	1 500	12 787	4 200	NA	127 150	NA
1996	232	6 584	1 776	2 663 250	41 860	41 86 000
1997	135	6 997	1 936	2 904 000	39 190	39 190 000
1998	160	7 544	2 828	4 242 000	40 850	40 850 000
1999	314	8 347	3 160	4 740 000	41 055	41 055 000
2000	537	22 762	17 884	26 826 000	265 170	265 170 000
Total	4 357	76 591	35 584	41 375 250	672 175	387 070 000

Source: Morogoro regional socio economic profile, 2002 and Morgoro Rural report
NA means the data were not available

2.1.3 Morogoro share of National honey and beeswax production

Taking the year 2000 production in Morogoro region and National production capacity in honey and beeswax, the share of Morogoro region is shown in table3.

Table 3: Morogoro share of National honey and bees wax production

	National in (tons)	Morogoro Production in (tons)	% in Morogoro (tons)
Honey	138 000	265.17	0.2
Beeswax	9 200	17.88	0.2

Source of data: NBP, 1999 and fieldwork, 2006

Tables (2&3) show that Morogogo had about 0.2% of total honey production in the country. Most of the total beehives in the region were in Kilosa district followed by Morogoro rural. In Kilosa awareness was raised by the IRISH project which emphasized beekeeping activities in the district for increasing income and conserving the environmental (Regional reports, 1999)

Traditionally, people in Morogoro Region had negative attitude in keeping animals including bees. However, through creating awareness they had started to change their attitudes.

2.1.2 Dodoma region (Kondoa district)

The condition of beekeeping activities in the two districts of Morogoro region were different from Kondoa district in Dodoma region see table (4a&ab). In Kondoa beekeeping activities were considered as traditional. For example; in Kondoa district only, the share of honey production in the national production was 26% in 2005. However the production capacity of Kondoa district per hive was low compared to the production in

Morogoro districts due to beekeeping production technology and semi- desert climate characteristics of the areas (FAIDA, 1999)

Table 4a: Kondoa share in National honey production

	National in (tons)	Kondoa Production in (tons)	% in Kondoa (tons)
Honey	138 000	35 892	26
Beeswax	9 200	44.25	0.5

Table 4b: Production trend for Honey and beeswax Kondoa district

Year	Total hives	Production			
		Honey	Value	Beeswax	Value
1999	84 800	30 000	15 000 000	18 400	27 600 000
2000	85 100	35 200	17 600 000	20 100	40 200 000
2001	126 000	56 000	28 000 000	43 000	86 000 000
2002	177 000	44 250	22 125 000	36 550	91 375 000
2003	177 000	55 400	27 700 000	40 250	100 625 500
2004	182 240	45 560	22 780 000	32 224	96 672 000
2005	204 060	61,212	61,212,000	35,101	105,303,000
Total	1 036 200	282 062	194 417 000	225 625	547 775 500

Source of data: Kondoa district Office, 2006

2.2 Characteristics of beekeepers in the study area

Most of beekeepers having modern hives were young aged between 23 and 45 years and most of them were the members of groups. Those having traditional hives were adults with age ranged from 50 to 70 years. This implied that formally youths were not actively involved in beekeeping activities, but now they are engaged more on this activity on a commercial basis. Traditionally, almost all beekeepers (95%) were peasant farmers and depended more on agriculture production as one of their dependable economic activities. Most of them had at least primary education.

This fact indicated that beekeeping was undertaken as an extra/side activity. The results also indicated that the education level is likely to have a positive impact on social and beekeeping economic intervention.

2.3 Production technology of honey and beeswax

Beekeeping practices in the study area were based on traditional knowledge on behavioural characteristics of the honeybees. Several types of hives were used. These were traditional, top bar and very few if any framed hives.

2.3.1 Traditional hives

Most of beekeepers were use traditional hives. These hives could be log, pots or bark. Hives are hung up on the tree branches where they are left to attract bee swarms. Areas where hives are kept are normally far from homesteads. Keeping beehives away from the villages has advantage of obtaining organic honey that is highly demanded. However could encourage poor management. Traditional hives was cost about Tshs. 36 000

involving labour charge. Production ratio of honey and beeswax of both log and bark hives was estimated at national level to be 15 kilogram and 1 kilogram respectively. Figure 2&3 shows examples of traditional hives found in Morogoro and Dodoma regions.

2.3.2 Transitional hives (Top bar hives)

These types of hives had owned by only few individuals especially those who educated and who are in group which got assistance from NGOs. They cost about Tshs 17 000 to 45 000 depending on the size and type of timber. The average production for transitional hives is 2 tins of 20 litres for crude honey and 1- 1½ tins for extracted honey per harvesting seasons. Its life span is estimated to be more than ten years.

Figure 2: One example of traditional hive used in Morogoro and Mvomero districts.

Figure 3. A picture showing one of the bark hives commonly used in the study areas.

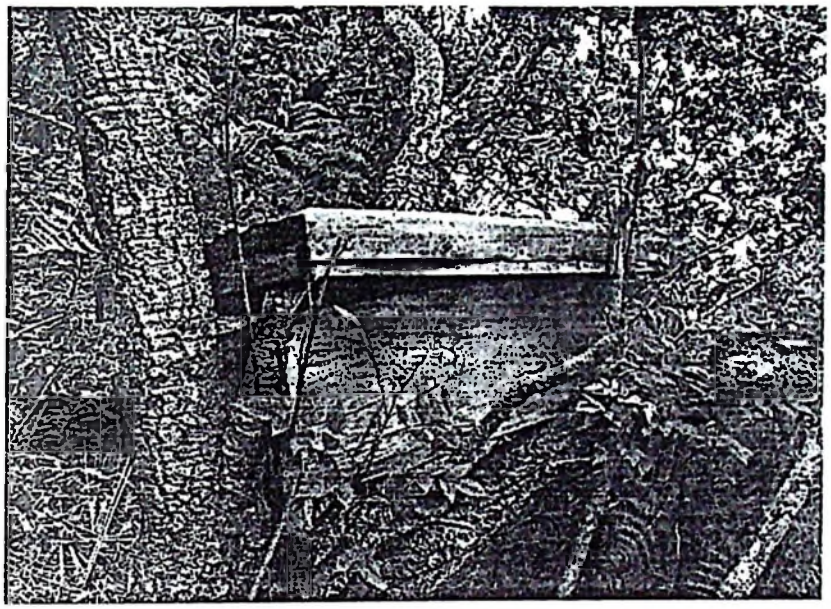


Figure 4. A picture showing one of the TTBH commonly used in other parts of the country

Experience from other areas show that a comb built on a bar weighs 2.1kilogram. Therefore a Tanzania Top Bar hive with 15 harvestable combs can produce 31.5 kilogram of crude honey (Mpuya, 2005).

2.3.3 Framed hives

These are the modern hives in which were used by very few people in Morogoro region. The technology was developed by Organisation known as KOMLA (Kopa Mzinga Lipa Asali). It has capacity of producing 200 litres of honey per year, and cost only about Tshs. 82 000.

2.4 Production of honey and beeswax in study area

Table 5 summarizes types of beehives, average quantity of beehives owned and production per beekeeper, and estimated total production of honey and beeswax in the Mvomero &

Morogoro rural (together) and Kondoa. It was estimated that there were about 1000 and 15,023 households respectively.

Table 5: Types of beehives, average hives and production per hive

Type of beekeepers	Type of hive	Hives range)	Average hive/beekeepers	Production/ hive/ year	
				Honey, (Lt)	Wax, Kg
Traditional hives	Individual	4-10	5	8	0.9
	Groups	4-10	5	10	1
Transition hives	Individual	1-2	2	10	-
	Groups	5-10	7	15	1
	Educated	30-60	40	20	-
Framed hives	Educated person	6	3	100	-

In the Table 5, it was estimated that total productivity was low compared to potentiality and official production figures. It was reported that, the transition hive could produce 30 litres of honey per time of harvesting (Extension bee staff, 2007). But current production per year not per season is only 10 to 20 liters of processed honey. It was explained that the cause of low production were inadequate awareness, technical know how, inadequacy of extension services, unreliable market, shortage of hives, high costs of beekeeping equipment, poor processing techniques and change of climatic conditions. Studies done by Kiwhele (1990), Masalu (1997), Senkondo (2005) and others revealed the similar problems facing the most beekeepers in the country.

2.4 Honey Harvesting

Normally honey harvesting was done twice a year. The big season that starts from May to July and small season that start from September to December. According to Beekeepers

honcy was flowing to the excellence from May to July and minor honey flows during October to January, depending on the flowering period of the most of the crops and ecological variations of the places. Harvesting was usually done at night, and should be done by more than two people for the security and nature of the activity itself.

2.5 Honey Processing

Most of beekeepers were processing honey locally. Some of them were not processing because most of the buyers require comb honey for making local brew. Some times the price of comb honey is higher than when you strain the honey. However its market is limited.

Few beekeepers in Dodoma were process, strain and packaging the honey. Most of techniques used to make local processing (to strain) were squeezing combs between hands, stirring to soften it and boiling. All these methods did not lead to high quality products of honey and sometimes honey was processed under unhygienic conditions.

2.6 Marketing

Internal marketing for honey and bee products in Morogoro region was not well established. There was limited information on marketing channels and potential of honey in surveyed areas. This was partly a reflection of low production and poor processing of honey. Honey produced lacks the standards that can readily attract buyers both locally and distant markets such as urban centers. Much of the honey was sold locally to the villagers and occasionally to businessmen who come into villages during market days. One group of Milama villages was sold their honey in shows like Nanenane.

In Dodoma there were big buyers like Fidah Husein, Mohamed Enterprises and Ministers (PMs) during Parliamentary meetings. In Kondoa districts most of buyers involved in trading beeswax than trading honey.

2.6.1 Demand and supply

The demand of honey was greater than supply both in rural and urban areas. Demand for honey as food and authentic ingredient in various foods and as a product with healing qualities is increasing. According to the buyers in the study areas, there was no honey thrown away by lacking purchasers. In Morogoro areas some buyers had many orders from purchasers and some of them had paid in advance. However the information from the producers in some areas was contradicted by saying that they remained with their honey for long time without being purchased. This was indication that there were no good relations between actors in the honey sub sector.

2.6.3 Price of bee products

The price of bee products was fluctuated widely depending on production, quality and type of honey. One litre of honey and beeswax were sold from Tshs of 3 000 to 4 000 and from Tshs of 4 000 to 4500 respectively in Morogoro region. In Kondoa the price was slightly low ranging from Tshs 2 000 to 2 500. Like many other seasonal crops, during harvesting season prices of bee products tend to fall and rise as the products become scarce.

Crude honey was sold to local brewers at a price ranging between Tshs. 20 000 to

35 000 for a 20-litre container when it is scarce and between Tshs. 10 000 to 15 000 when the product are abundant especially during harvesting season. Farmers preferred to sell more crude honey than strained honey. However the market for crude honey was limited.

2.6.4 International Market (external market)

African honey including Tanzanian's honey does not have a good reputation in the international honey trade. Many importers relied on African honey imports in the past, but they have discontinued the imports because of deficiencies in quality and supply. However honey importers are sensitive to development aspects of imports from Africa due to the fact that honey coming from Africa could comfortably compete with honey coming from other areas if it's potential could be fully taped. Germany and the United Kingdom had an interest in increasing their honey imports from African Countries (EPOPA, 2005). Currently Tanzania and Zambia are the most suppliers of honey to the European Union. Germany (The biggest honey importer in UE), United Kingdom and Belgium were important customers for Tanzanian's honey. Others are Middle East, Japan and The Netherlands (Philemon, 2006).

CHAPTER THREE

3.0 PARTICIPANTS, INSTITUTIONAL AND REGULATORY ENVIRONMENT IN HONEY VALUE CHAIN DEVELOPMENT.

The reviewed polices, institutional and other participants highlight a favorable environment for the promotion of production and trade in the beekeeping sector. Beekeepers, traders, individuals and organized groups will benefit from this favorable policy environment. Some of the policies, groups and other participants are summarized below.

3.1 Policies

3.1.1 National Beekeeping Policy 1998

The Government of Tanzania developed the National Beekeeping policy (NBP) in 1998. Its overall goal is to enhance the contribution of beekeeping sector to the sustainable development of Tanzania and the conservation and management of its natural resources.

3.1.2 National Forestry Policy, 1998

The National Forestry policy provides opportunities for beekeepers to practice beekeeping in forestry reserves.

3.1.3 Wildlife policy of Tanzania, 1998

Beekeeping activities are encouraged to be carried out in wildlife Management Areas by involving local communities. With special permission from director of Wildlife beekeepers are allowed to carryout beekeeping in game reserves and game controlled areas.

3.1.4 Village Land Act, 1999

The village Land Act 1999 allows beekeepers to be allocated land for beekeeping development.

3.1.5 The National Trade Policy (2003)

This policy is involved in lowering and/or removal of non-tariffs/tariffs barriers such as export tax on bee products, facilitation of import licensing and registration, development and enforcement of quality standards (through the Tanzania Bureau of Standards (TBS), export promotion and export facilitation.

3.2 Organizations

Table 6 shows some Organisations that assisted beekeepers to increase their production. Assistance provided could be trainings, hives, beekeeping' equipment etc.

Table 6: Honey sub sector supporting Organisation in Dodoma and Morogoro regions.

Organisation	Specific supporting functions
Sokoine University of Agriculture (SUA-Pantil)	Research, Training and Extension.
Women for Poverty alleviation in Tanzania (WOPATA)	Trainings, provision of Protective gears and Beehives.
Oxfam Intermon	- do-
Chama Cha Mazingira na Maendeleo kwa Umma Tanzania.(C.M.M.U.T)	Training in environment conservation, Equipment, training provision.
Public Forest Management (PFM)	- do-
World vision	-do-
Dodoma Beekeeping Company (DOBEC)	-do-
Rural Livelihood Development Company (RLDC)	Financial supporting
Participatory Agric. Development Programme(PADEP	Financial support and training
Small Industry Development Organisation-SIDO	- Financial and training
Tanzania National Park (TANAPA)	- Financial assistance
Inades Formation	- Networking and marketing
Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA)	- Trainings, networking, marketing policy.

3.3 Other participants in Honey value chains.

There were other participants involved in honey value chain. Their existence could enable the chain to be developed. They occurred as individual or like an institutions.

These were:

3.3.1 Extension Workers

These are Local Government staff within the Natural Resources and beekeeping divisions. Most of them were low cadre staff with some training in production and management of apiaries but lack skills in processing, packaging, storage and marketing. They were few in number compared to the needs and demands for their services. For example in Morogoro Rural and Mvomero districts there was only one Beekeeping Staff in each district. Other constraints faced this group were poor working conditions, especially transport facilities, working gears and tools.

3.3.2 Local Government Institutions

These are district and village governments. They were involved to implement policies and to develop and execute development plans in areas of bee keeping activities. It was observed that the councils had weak policy coordination, implementation and inadequate skilled personnel. Beekeeping did not feature as a priority economic activity in the district's development plans. For example the district decided to allocate hives to village council as a demonstration to all people in the village. But most of these bee hives were not used as planned due to poor supervision.

3.3.3 Central Government

Central governments also were involved in beekeeping activities directly or indirectly. Ministries of Natural Resources, Agriculture and Prime Ministries are among of them.

3.4 Honey Sub Sector Channels

Figure 5 explained honey sub sector map. It shows how the product channeled from the production to the final consumers. It involves several functions and the participants. In the study area the participants were researchers, extensionistis, producers, middleman, big buyers and associations. Functions were research, training, input supply, production, purchasing, processing, retailing and marketing to final consumers. The destination markets for honey were local table honey for low income, confectionary, export and supermarket.

There were about four channels of honey value chain identified in study area. These are:

Channel 1: Research to local table honey

This channel starts from the research to the local table honey. Most of the participants in this channel were beekeepers that had two main products to offer to the market; honey and beeswax. Some of them did all functions from production, processing, retailing and market their product to the local market.

Channel 2: Middlemen

Most participants in this channel were Middleman. They were few in the chain and they not involved in production function. They just purchase honey or/and beeswax and channeled it to confectionery market, where then the product used to make various products like biscuit, ice cream and other uses.

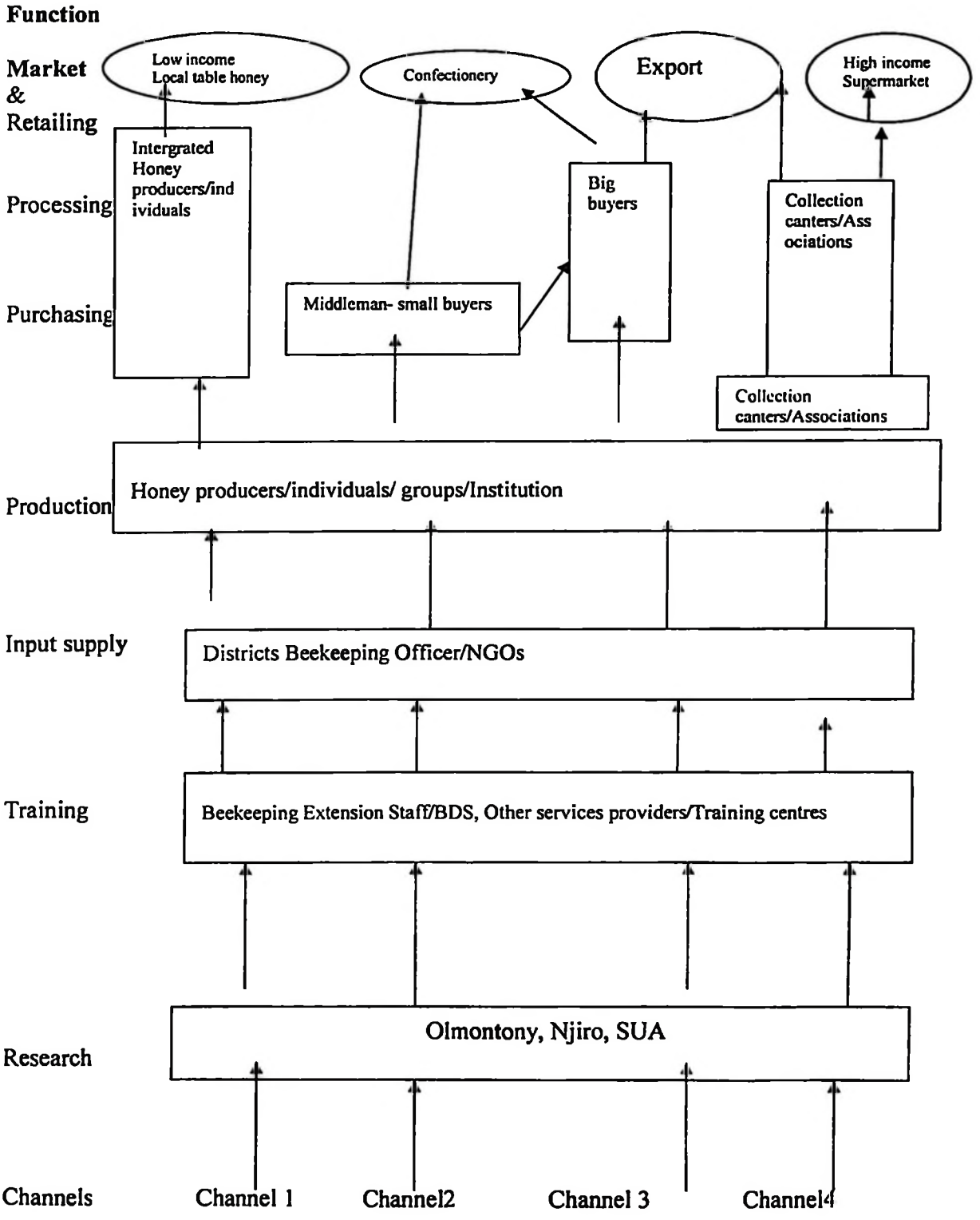
Channel 3: Beekeeper's Groups

Participants in this channel includes those people joined together to form the group for beekeeping activities. Some times they involved in all functions including production, processing and retailing to the big buyers. Some middlemen also purchase the honey from them. They were few in the chain but contain some power to influence the price.

Channel 4: Community Based Organizations/Collection centers

Participants in this channel are those who provide supports to the beekeepers and then they agreed to purchase their products. The production was done to beekeepers level and these organizations promises to provide supports like trainings, bee hives, protective gears etc. They make an association that could do several functions including production. They channel its product to associations to supermarket or for exportation. In Morogoro this channel was weak and just it is in initial stage.

Figure 5: Honey sub sector map showing channels in honey value chain



3.5 Economic potential for honey sub sector

Beekeepers in the study area revealed the importance of beekeeping activities for social economic development that provides people with nutrition and income, source of raw materials for industries, medicine, provide employment etc. Table 7 show that Beekeepers receive a net income from just few colonies with little investment. It indicated that honey was the most profitable enterprise with a gross margin per household per year was about Tshs. 50,270,000 to about 1,676 beekeepers. The Table also shows that there was small amount of variable cost needed to produce such gross margin. This amount show that beekeepers will benefit through honey sub sector value chain development in both income & employment terms.

Table 7: Costs, revenue and simplified gross margin for beekeeping activity.

Items	Year 1	Year 2	Year 3	Year 4	Year 5
No. of beekeepers					
Morogoro Rural	204	204	214	214	225
Mvomero	720	720	756	756	794
Kondoa	752	752	789	789	829
Total	1 676	1 676	1,760	1760	1 848
No hives/ person	1	2	3	4	5
Morogoro Rural	204	408	643	857	1 125
Mvomero	720	1 440	2,268	3 024	3 969
Kondoa	752	1 504	2,369	3 158	4 145
Total	1 676	3 352	5,279	7 039	9 239
Prodt/hive/yr (Lt)	10	15	30	30	30
Total prdn (lt)	16 760	50 280	158,382	211 176	277 169
Price/kg (Tsh)	3 000	3 000	2,500	2 500	2 500
Total rev.(Tshs)	50 280 000	150 840 000	395 955 000	527 940 000	692 921 250
Less costs					
Mngt costs (Tshs)	9 000	9 000	9000	9 000	9 000
Bicycle charge	1 000	1 000	2000	2 000	2 000
Total variable costs (Tsh)	10 000	10 000	11,000	11 000	11 000
Gross margin/HH	50 270 000	150 830 000	395 944 000	527 929 000	692 910 000

CHAPTER FOUR

4.0 Opportunities and Constraints for Honey Sub-sector Development.

The honey sub sector contains constraints that hinder the development of the chain. However there are some opportunities which also favour the chain to be developed. The constraints and opportunities identified are summarized below:

4.1 Constraints of honey value chain development

The main constraint facing producers of bee products was identified as low income derived from the sale of bee products. This problem was attributed to the poor quality of the products, low production and inadequate marketing of bee products as shown in Figure 3. Low income of producers increases their livelihood vulnerability, consequently leading to poverty.

4.1.1 Poor quality of bee products

Many factors were found to contribute to poor quality of bee products that are being marketed. These were;

(i) Inappropriate technology

Inappropriate technologies in harvesting, processing and packaging, poor extension services and weak organisation among the beekeepers were identified as the problems which contribute to poor quality of honey. Beekeepers in most of the districts rely on indigenous knowledge and had limited training and information on improved beekeeping techniques. Beekeepers had inadequacy of information and knowledge on required product quality.

(ii) Poor storage of products

Beekeepers in the districts reported to store honey and beeswax under varying conditions and places, which show different temperatures and levels of humidity. These factors are known to affect the quality of stored honey and beeswax.

4.1.2 Low Production of Bee Products

According to the Beekeepers; low production was attributed to poor technology used in production such as low quality hives (local hives), poor harvesting technologies and poor storage facilities, inadequate capital, deterioration of the products and loss of bee production area. Other causes of low production were the destruction of hives by wild animals *Mellivora capensis* locally known as "Nyegele", losses due to theft and wild fires

4.1.3 Lack of reliable markets for bee products

According to Beekeepers, many factors had been contributed to this. The most frequently mentioned factors were problems in market accessibility; lack of joint efforts in marketing, lack of/low levels of market information and low entrepreneurship skills.

4.2 Opportunities in honey value chain development

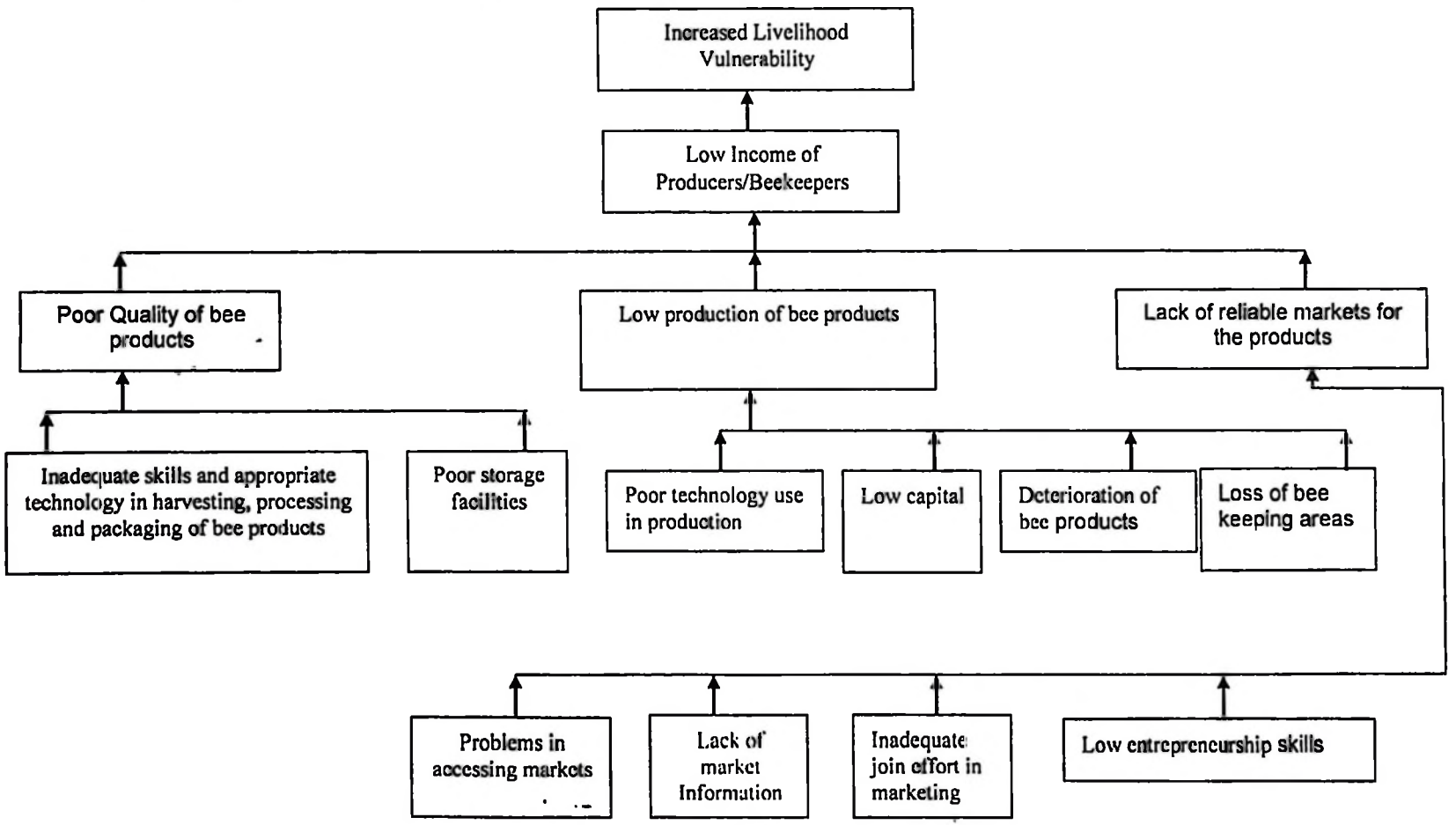
Opportunities for improving marketing practices and efficiencies exist in both domestic and international markets as well as in production level.

4.2.1 In production level

Availability of arable land in the regions provides an opportunity for honey sub sector development. For example Morogoro is estimated to have 643,629.1ha of productive forestry and 459,195ha protective forestry which can favor honey production (URT,

1999). Again many crops cultivated in Morogoro and Dodoma regions have symbiotic characteristics with beekeeping or honey process. Examples of these crops are sunflower, sugar, cotton, sorghum, beans etc. This will favour the honey production process.

Figure 6: Problem Analysis honey sub sector (Summary)



4.2.2 Internal market

It was observed that demand of honey was very high compared to supply in Tanzania (Mwakatobe, 2005). This was both internally and externally. Honey consumption was increasing rapidly specifically in medicine, beer brewing and confectioneries.

4.2.3 External market

Tanzanian honey fetches high prices on the international market. For example, during 1999/2000 one ton of honey fetched 3,741.13 USD (Mpuya, 2005), while the price of beeswax was about 1,075 USD per year. When compared with the prices of other export crops, export prices of bee products have remained relatively high, which indicates high demand and lucrative opportunity for Tanzanian bee products.

Existing demand of honey in UK, German and Indian countries increase motivation to people to involve in honey production.

4.3 Commercial viable solutions

Honey sub sector could be developed by the constraints faced by the actors within the value chain. This could be achieved through increased production of bee products, improved quality assurance and increased marketing of bee products.

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The study finding shows that beekeeping industry in the study area had made significant contribution to reduction of income poverty. According to the data obtained, average hives per household were 5. This brought about 6405 litres of honey. Honey was sold at average of Tshs. 3 000 to 4 000 per litre which bring total income of Tshs. 19 215 500. This is equivalent to Tshs. of 107 346 per household per annum.

As far as production is concerned, production methods and unreliable market restrict the output by providing poor honey quality. Honey volume was too small to attract buyers and other investors.

Therefore to improve honey value chain SNV central portfolio and other actors should recognize the implementation of value chain development strategy. This strategy requires multi stakeholder collaboration. No single Organisation can achieve a sustainable market access process. All actors in the development of honey value chain are equally important. Each member of the actors should offer its own expertise. Actors and other Organizations should have different roles to play to improve incomes from honey in the long term and their fore honey sub sector will be potential and economically will be viable.

5.2 Recommendations.

- In order to improve honey value chain, improving production, quality and marketing should be worked out. The chains should be strengthened enough in all

areas. In Morogoro region the production is still very low. This makes other actors within the chain not to be active. However there are a lot of opportunities like arable land, internal and external market for development honey value chain. It is the role of any organization or individual to take its party and responsibilities.

- The reliable and sustainable achievement for honey value chain development is that beekeepers should work in groups. Groups should be stronger and well equipped in both skills and equipment. This will simplify any business and production services and there fore to add value of the product in terms of reducing costs.

5.3 Proposed Intervention Points for SNV central Portfolio in Honey value chain development

SNV approach is dealing with meso level and not at the grass root level. The following interventions could be relevant to SNV as one of the actors in development:

- To build capacity to Organizations dealing direct with the production of honey within the working areas like C.M.M.T, SUA PANTIL, WOPATA etc. The organisation should be empowered on how they can manage to collaborate with beekeepers to increase production the farmer's level.
- To build capacity to Public Organizations related with Honey production like Participatory Forestry Management (PFM), and PADEP. SNV should provide technical assistant/ advisory services on strategic planning and linkage of activities to those staff/government staff.

- Assist Natural Resources departments in their already initiatives. Departments of Natural resources in Morogoro Rural and Mvomero district were in the process of establishing Morogoro Beekeeping Association (MBA). SNV through their advisors should provide technical advisory services to and make this association a partner of SNV, for further development of the sector.
- Provide linkage between producers with inputs and credit providers like DAI PESA, Rural Livelihood Development Company (RLDC) in Dodoma and other organizations.
- SNV should facilitate development of strategic plan for honey sub sector implementation.

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