

# **Organisational and Institutional Analysis on Livestock Department, Wukro Agricultural TVET College, Wukro, Ethiopia**

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## **CHAPTER ONE**

### **1.1. INTRODUCTIONS**

This Organizational Development and Institutional Strengthening (ODIS) paper gives an insight of the Wukro Agriculture TVET College, one of TVET in Tigray regional TVET institutions in Agriculture in Ethiopia. The objective of the paper is to assess the organization from the perspective of livestock chain development with a view to analyze the factors that hinder and/or support mainstreaming of value chain approach or improvement of value chains. This report is based on secondary data from literature obtained from books, TVET annual report, regional development plan, and telephone communication with colleagues in the office, personal experience and observations. The research methodology used in the compilation of this paper was a desk study.

### **1.2. Background beekeeping in Wukro**

Beekeeping has a long-standing tradition in Tigray Region of Ethiopia. Ethiopia ranks as the 9th largest honey producer in the world (largest producer in Africa), with a total output of 39,000 MTs. In Wukro alone, approximately 8,540 farmers are engaged in honey production with an annual output of 234.61 MTs from both traditional and modern variety. In Wukro Kiltel Awlalo the long (summer) rains take place from June through mid-September. This period is followed by heavy flowering and vegetation which characterizes the peak production and harvesting season (late September – mid December). Minor harvesting also takes place between May-June. Traditional beehives produce approximately 5-6 KGs per year, while modern hives averages 15-25 Kgs per year. Modern technology has a dramatic increase on both quality and quantity of honey produced. Some farmers in Wukro still apply traditional practices. The majority are under-producing due to lack of supply in the immediate area surrounding Wukro (USAID, 2008).

Located in neighboring Adi-grat Dimma Bee-keeping Development and Honey Processing PLC opened in 2005 with a production capacity of 1,000 Kg per 8 hour shift which collected from different farmers and cooperatives. In Wukro town the “Beekeepers Association Selam of Wukro” actively sells 8,000–9,000 Kgs per year to the domestic and export market, but these cooperatives have weak cooperation and limited technical skills. Wukro agriculture TVET College, rural agriculture office and others stakeholders have made efforts to support the beekeeping sector by providing training and input supplying. The vast majority of inputs for beekeepers in Wukro credit have been provided through heavy donor subsidies or on soft credit terms by the guaranteed government agricultural office through the safety net package as “asset transfers.” But still the quality and quantity production at initial stage with all these efforts the beekeeping value chain is still not performing well (USAID, 2008). This analysis will therefore point out the factors that support or hinder the department of livestock production to mainstream the value chain approach in the honey value chain.

### **1.3. Guide Questions**

This paper will be guided by the following questions:

1. What are the existing internal and external factors and actors that influence the value chain approach in Wukro Agriculture TVET College?
2. What internal and external factors hinder or support value chain mainstreaming in Wukro Agriculture TVET College?
3. What are the factors within the institutional environment that hinder or support value chain mainstreaming in Wukro Agriculture TVET College?
4. How can my position and role in Wukro Agriculture TVET College influence value chain mainstreaming?
5. What recommendations can be drawn from the organization and institution analysis to support value chain transformation in Wukro Agriculture TVET College?

#### 1.4 Analysis models and their justification

Integrated Organizational Development Model (IOM) was used for organizational description in the second chapter. This model offers an overall tool to put the various elements of the organization in perspective. Together with the SWOT analysis, the tools helped to bring out the strengths and opportunities that can be built upon and the weaknesses that have to be corrected. Institutional Matrix and a value chain map in the third chapter were used to analyze and connect the Institutional environment to the value chain. In the fourth and fifth chapters the 5 Core capabilities model was used to assess the capacity of the organization and possibilities for change, specifically to identify the enabling and hindering factors with focus on the honey value chain development.

## CHAPTER TWO

### ORGANISATIONAL ENVIRONMENT

In this chapter I have briefly describe the background of the Wukro Agriculture TVET College in Ethiopia. I have also discussed the external as well as the internal environment of the organisation

#### 2.1 Background of the Wukro Agriculture TVET college

Wukro Agricultural TVET college was established in 2001 under Ministry of Federal Agriculture office of Ethiopia. This college was established to train students to work as agricultural Development Agents (DA) in the field of Animal science, plant science and natural resource management. In 2007, Wukro Agriculture TVET college was transferred from the Federal Agriculture Ministry to federal commission of TVET to be managed by The Tigray regional government TVET office. The college now provides short term and long term trainings for farmers and students from Eastern zone respectively.

The college plays a supportive role in the honey bee value chain through the trainings described above.

For purposes of this paper, the organisational and institutional analysis will be focused on the activities of the TVET college in the honey bee value chain in Wukro.

#### 2.2 External Organisational Environment

##### 2.2.1 Mission

Wukro Agricultural TVET College is a public higher learning institution under the Regional Government of Ethiopia, which fosters outcome based training as per the Ethiopian Occupation Standards in its short and long term training to produce competent professionals, who could transform the Ethiopian agriculture from subsistence to commercialized level. The colleges is committed to offer specialized training centre of excellence, high quality practical training to the rural youth, private and public sectors, and provide technical business advisory service and transfer applied technologies to farmers, the public and private enterprises to enhance the sustainable development of the Ethiopian economy(Wukro Agriculture TVET college,2013).

##### 2.2.2 Vision

Technical and Vocational Education and Training (TVET) Wukro college seeks to create competent and self-reliant citizens to contribute to the economic and social development of the Tigray region, thus improving the livelihoods of all Tigray (Ministry of Education, 2008).

##### 2.2.3 Objective of the college

To create a competent, motivated, adaptable and innovative workforce in Tigray contributing to poverty reduction and social and economic development through facilitating demand-driven, high quality technical and vocational education and training, relevant to all sectors of the economy, at all levels and to all people( Ministry of Education, 2008)

##### 2.2.4 Output

The Wukro Agriculture TVET College has trained manpower in several different agricultural field mainly in the area of dairy production, beef cattle production, **Apiculture (Beekeeping)** techniques, poultry production, plant science , horticulture productions, natural resource technologies, Agricultural extension and animal health. These trainings have been transferring knowledge and skills to many young students farmers using field demonstrations, lecture. provide advice for farmers and others stakeholders on the importance(Wukro ATVET,2013). The training output Wukro Agriculture TVET College for the students and farmers in the last consequence Four year in the field of livestock sector as follow below.

**Table 1 : short term training on Apiculture in the livestock department**

Field of short term training	(September 2009 - august 2010)		September 2010- august 2011)		September 2011- august 2012)		September 2012- august 2013)	
Gender	Male	Female	Male	Female	Male	Female	Male	Female
Beekeeping	350	150	550	250	600	300	800	350

Source : (Wukro Agriculture TVET College annual report, 2013)

**Table 2: Number of long term training on Apiculture in the livestock department**

Field long term training (diploma )	(September 2009- August 2010)		September 2010- August 2011)		September 2011- August 2012)		September 2012- August 2013)	
	Male	Female	Male	Female	Male	Female	Male	Female
Beekeeping	-	-	20	26	40	40	60	60

source : (wukro Agriculture college TVET annual report, 2013).

### 2.2.5 Input

Financial resource, human labor, logistic facilities, equipment and technical support are the main input source of the organization used to train Development Agents and farmers that can improve production and productivity of the Apiculture sector. Source of funds for the organization are regional government and sometimes donors like GIZ and Dkt Ethiopia.

The funds released are mainly for conducting training activities, administrative work, fuel and organizing trainings. Funds have almost remained the same in terms of nominal value irrespective of the increases in commodity prices. The Wukro Agriculture TVET College total staff are 120. The educational levels are 20 MSc., 40 BSc, 27 diploma and 33 certificate, of which the Department of Livestock has 4 MSc. and 14 BSc. and 3 Diploma. of which 4 are Female (Wukro ATVET annual report , 2013)

### 2.2.6 . External Components (Factors)

**Political:** The political climate is conducive for the performance of the Livestock Department. The Ethiopian agriculture policy supportive particularly in the issues related to development of the livestock value chain. Economic empowerment policy to ensure deliberate participation of indigenous Ethiopian in the mainstream economy and also to ensure the availability of skilled man power. This also resulted in increased demand for the Wukro Agriculture TVET services as there were new trainees in the livestock sector. The government designed an apprentice program with Agriculture office which has facilitated the Beekeeping training program to meet the demand. However, they lack practical exposure causing challenges in carrying out their duties.

**Social-economic factors:** The majority of people in the District are farmers. Beekeeping is an important economic activity for most households, most of households have at least one beehive. There's high level of literacy amongst the community thus easily trainable.

- **Government funding.** Inadequate funding of livestock department limits resources to support value chain upgrading activities in Wukro, such as clustering and training materials.
- **High inflation.** Low wages and incomes prompted staff to leave the institute in search for better salaries and this has reduced Wukro Agriculture TVET college human resources affecting planned programmes, activities inputs and outputs for target groups.

**Cultural:** Wukro staff are basically with agriculture background although other disciplines e.g. social scientists and finance disciplines are required.

### Technological

- **Information technology.** ICT has made downloading of recent books and innovations easy from internet. Cell phones also assist livestock department to share knowledge and skills also monitoring field activities .
- **Equipment.** Most equipment used during the training are outdated and cannot meet the current technological developments. There is also shortage of equipments like computers, Queen rearing equipment etc. The livestock department only has about 8 computers for 21 people, these computers are also of an old version.

### 2.2.7. The Specific Environment (Actors)

**Customers and target groups:** The goal of the department is to train development agents and farmers to understand their position and develop skills in the value chain and to take action towards improving production, market access and gender involvement for sustainable value chain. The target groups are both male and female beekeeper farmers and development agents.

**Suppliers.** Trainers are recruited by regional Human resource management department office and are graduates from Agricultural universities. Electricity is provided Ethiopian Electrical Power (EEP) on monthly payment basis. Diesel and vehicle/motorcycle maintenance services are offered by Regional TVET.

**Partners:** The department works in collaboration with other government departments like the Women Affairs office, Rural Agriculture office, Youth and Sports office. The college also has collaborations with the following Non Governmental Organizations including REST, World Vision and GIZ and Micro finance institution.

**Finance:** The college is funded for its activities from the regional government, by submitting its budget every March for incorporation in the regional annual budget. However, most of the activities and training budget submitted are poorly financed. Ethiopia government spends only about 0.5 percent of its education and training budget on TVET colleges (Division of human resource and youth strategy, 2007).

## 2.3 Internal Organisational Environment.

### 2.3.1 Strategy

The strategy of Wukro TVET College was developed with the involvement of a broad range of stakeholders from the private and public sectors. It defines the major principles of the intended TVET development in the coming years. The main thrust of the strategy is that TVET development relies on an outcome-based system and dedicated and trusting cooperation among stakeholders (Ministry of Education, 2008).

The department of livestock strategy is a long term plan of action to realize its objectives with the available means. The strategy is based on the livestock departmental objectives. Targets are set at the beginning of the year and an evaluation is carried out at the end of the year to measure accomplishments. Livestock department strategy themes the specialization of beekeeping indicated in the five year development plan which includes the following(see table 3 below)

**Table 3:** Strategy

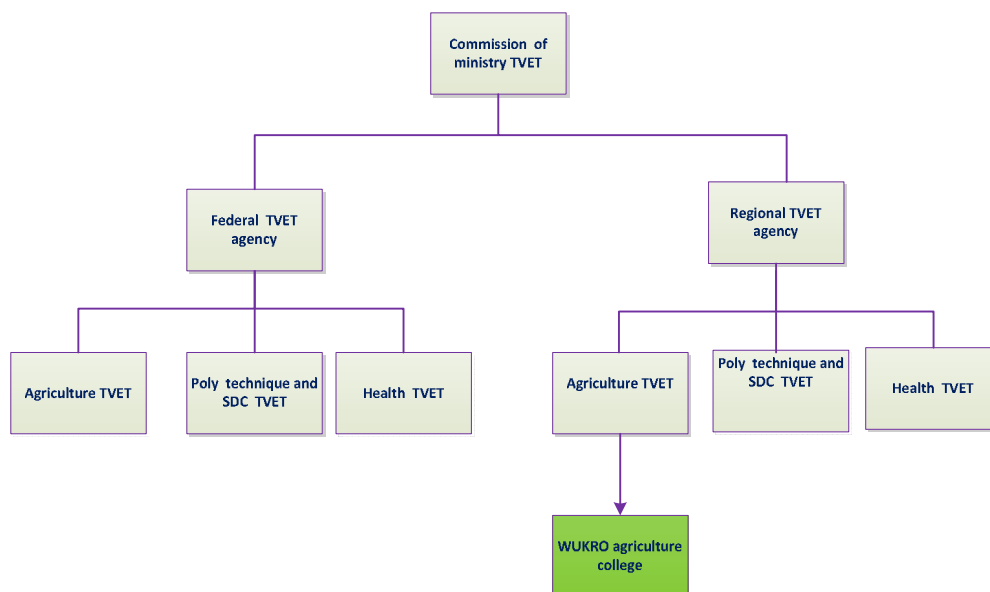
Departmental Objective	Target	Strategy
- Development of Skilled personnel specialized in beekeeping production techniques.(long term training)	-increase the number of new students trained as Development Agents from by 2% per year in the field of beekeeping.	-Provide quality training in theoretical and practical skills for 2 years. -linkage with agriculture office, university and other to improve training program.
Increase beekeeping production and productivity.(short term training)	- Increase honey production and productivity from traditional hive 5 kg to 10Kg and modern hives 17 kg to 30 kg per hive per a year. -Increase the number of trainee farmers by 5% per year in the field of beekeeping .	-Intensify technical training of farmers for 10 days through collaboration with agriculture office and woman affairs office and youth sport office. -Mobilize political leaders to train as beekeepers in collaboration with agriculture office. -Providing training in and out of the college.
Enhance investment in the beekeeping production	-Providing training on beekeeping for Cooperative in the district.	- Involve the department on beekeeping to mobilize farmers and training on co-operative movement.
Increase market access of honey and bee products	Increase honey marketed through the formal chain from the current 10% to 30%.	- Establishment of beekeeping co-operative - Provide training to link farmers with Dima Adigrat honey processing factory and others .
Enhance institutional efficiency and effectiveness in service delivery.	-Improve on monitoring and evaluation/training system. -Strict enforcement of performance contracts with staff members	-Training of staff on reporting and practical system -Develop a reward system in consultation with the regional government
Producing Competent specialized manpower	- Reducing employment rate of the of the regions	-Creation of awareness through training -Linkage with lead farmers and motivate to work as entrepreneur

Source: Wukro agriculture TVET College, 2013

### 2.3.2 Structure

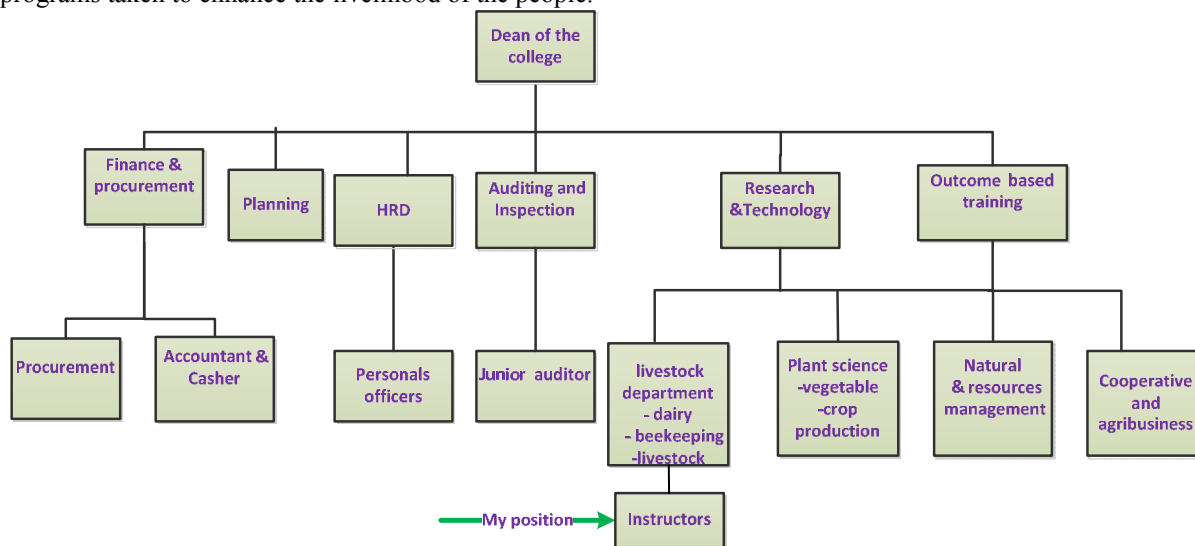
Commission of TVET agency, is divided into national and regional categories and managed by the politician leader. This report only focus on the structure of the organogram of the commission of the TVET and my organization Wukro agriculture TVET college.

Ethiopian commissioner TVET agency is divided into different subsectors like: (Agriculture, SDC, poly techniques). The National level of the commission of the ministry is responsible for policy formulation and planning in the various directorates. The Regional level is responsible for coordination, monitoring and evaluation of implemented projects and programmes of different colleges. At the wukro agriculture college the director(dean) manages seven division sector and other sub division(TVET annual report , 2013).



**Figure 1. Organogram of Ethiopian TVET**

The wukro agriculture college is further divided into Units and headed by merit persons. The two division of research and technology and outcome training programme working together to managed and evaluated the performance of the training in college . Wukro Agriculture TVET college these are the common training programs taken to enhance the livelihood of the people.



**Figure 1: Organogram of wukro Agriculture TVET College**

**2.3.3. my position**

My position is as senior instructor in department of livestock specialization. My duties as senior Instructor are the following.

- provide training to the development agents in the field of dairy production , beekeeping production, sheep& goat rearing, beef fattening .
- provide short term training in beekeeping and dairy production for the farmers to improve their technical skills .
- working as a researcher in community related livestock problem solving.
- guide students while working as apprenticeship.
- Making arrangement programme for short term training in the department of livestock.

**2.3.4. Systems**

The trainers provide knowledge and skills to the community through group trainings, conducting field days and demonstration. These training program provided in the college are short and long term. The long term training produce diploma graduates after 2 years and short term training are provided for 10 days to the farmers

beekeeping. Those activities of the college are based on the annual work plan and TVET policies.

The Wukro Agriculture TVET College then compiles the college report using a proscribed format which is submitted to the Regional TVET Director's office. The report is also accompanied by evidence for all the activities carried out in the college. The progressed of the planned activities in the work plan are checked quarterly and submission of progress report is also on quarterly intervals. The regional office also conducts supervision visits to college at least once annually. The purpose of the supervision visits is to give recommendations for improvement and The budget for implementation of the department activities included in the departmental annual work plan and budget which is forwarded to the regional office before the start of every financial year (July –June) for funding.

### **2.3.5. staff**

Recruitment is done by the human resource directorate TVET of the regional state. In recent times there has been a little staff motivation as compared to the living standard of the region. The staff are added salary in the interval of two years based on the evaluation result of performance workers and Best performing departments each year have all their staff get a reward equivalent to half month salary. This motivates the staff to put more efforts in their work. In addition the outstanding workers gets the chance to take an Msc. program in the Ethiopian agricultural University.

The Ethiopia Constitution requires that a minimum of 30% of those employed are women (FDRE, 2006) Technical staff can also be transferred into the college from other colleges within the Regional, while non-technical staff can also be transferred to and from other departments.

The reporting period is quarterly and it corresponds with quarterly performance evaluations for set targets for each instructors. Each instructors is required to prepare an annual workplan and an appraisal form (performance contract), showing targets to be achieved every quarter (and annually). The targets are discussed and agreed with the college or his deputy at the start of the year. The workplans are used for individual appraisal at the end of every quarter and at the annual evaluation.

### **2.3.6. Management Style**

The Wukro agriculture TVET college dean conducts the over all of the activities college . Dean of college and ensure the planned activities executed the work plan and budget and also have been internal management style to manage the overall the activities of the college using weekly meeting. Decision making in usually top down , however the dean involve the other management staff through weekly meeting at the office which are almost effective.

The Dean Wukro agriculture TVET college conducts quarter meetings with all the staff. The meetings are participatory and all staff members are encouraged to rise their views openly. The Livestock Department also cultivates an open-door policy where any member of the staff is free to go to him and raise any issues they feel are an impediment to achievement of departmental objectives.

### **2.3.7. Organizational Culture**

The organisation is located in a society with common cultures, but the staff workers that has different cultural background they come from different society and from different area. The organization of Wukro agriculture TVET college structure workers is that of a top-bottom one however, the relationship between both management , the administrative and technical staff is that of almost good respective and cooperation.

### **2.3.8. Gender**

There are 17 males and 4 females within livestock department. Concerns of both males and females are taken into consideration when decisions are being taken. Most females equal participation to work. livestock department is mainstreaming gender by allowing men and women to occupy leadership positions. Societal gender needs are identified in the society in which it operates.

## **2.4 Analysis SWOT**

The following table represents an analysis of the department's strengths, weaknesses, opportunities and threats in relation to mainstreaming value chain approach.

**Table 4: SWOT Analysis**

<b>Internal</b>	
<b>Strength</b>	<b>Weakness</b>
<ul style="list-style-type: none"> <li>• self motivated staff to work</li> <li>• The departmental structure is clear and well defined with clear tasks and responsibilities for the trainers and defined by a job description.</li> <li>• The accumulated development agent and farmers training experience of the college.</li> <li>• Increasing trainee of farmers and students every year ( see table 1 and 2)</li> <li>• Technology transfer and training service are given to the college and surrounding community.</li> <li>• Experienced leaders and staff worker.</li> <li>• highest ranked by work efficiency performance from Ethiopian Having good Linkage with stakeholder. TVET colleges for consequence the last 3 years.</li> </ul>	<ul style="list-style-type: none"> <li>• low internalization the mission and objective.</li> <li>• inappropriate service to all staff members</li> <li>• Gender imbalance(In livestock department only 4 female)</li> <li>• Management style (Limited communication vertically and horizontal management and staff worker).</li> <li>• There is inadequate staff to provide the training service delivery. Only 21 are available out of establishment requirement of 30 ( high staff turnover )</li> <li>• limited access to beekeeping practical demonstrations and laboratory for the trainee (like queen rearing equipment )</li> <li>• few access of computers (8 computer to 21 people in the staff.</li> </ul>
<b>External</b>	
<b>Opportunity</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Increase the participant NGO and private sector.</li> <li>• Support from political establishment.</li> <li>• The college is established in the region of potential beekeeping.</li> <li>• Willingness of stakeholder to work on value chain actors like GIZ and World Vision.</li> <li>• Climate suitable for honey production.(semi-humid)</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate facilities(office, , computer, practical training materials).</li> <li>• high Inflation</li> <li>• poor delivery of staff</li> <li>• Limited government funding for training (Ethiopia government spends 0.5 % training budget on TVET)</li> <li>• Obsolete equipment for training</li> <li>• Fewer career opportunities for staff workers.</li> <li>• Weak internet connection to find reference from the internet.</li> </ul>

## CHAPTER THREE

### 3.1 Institutional Environment

In this chapter, an institutional environment matrix is used to map the honey bee value chain in the wukro . Actors, their functions, key institutional or policy factors and their implication towards value chain approach are presented in the following table.

**Table 5 institutional environment matrix honey value chain**

Functions	Actors	Key institutions/policy factor influencing	Implication to ward of value chain approach.
-Input supplying	- Agro dealer, (Beehives, bee, Bee wax ,equipment supply)	- Bureau of trade and industry , MSE Garment manufacture Bee breeders. -MSE Manufacturers of beehives and honey extraction Equipment.	- High taxes levied on honey production and processing equipment. The cost of inputs is high makes it unaffordable for the farmers. This leads to low production because farmers cannot afford to procure essential inputs. Thus, farmers use low quality traditional beehives.
-Producing	-Small scale farmers -Medium scale -Cooperatives	- Group registration regulations: High fees for group registration. - Land tenure system: Land is allocated to groups. - Gender roles: Men own the land.  - Rural Agriculture Office policies of selection of participants, technical support	- Groups fail to raise fees for registration, thus do not benefit from programs. - Individual bee farmers cannot access land for production.  - Women are most involved in bee training and keeping, yet depend on men to access land for production. Thus, causes difficulty when they are not allowed to use the land. - There are few Extension officers, nepotism during selection of participants. Farmers in remote areas are not supported.
-Collectors	-Honey traders - Brokers	-Regulation for honey traders  -Business licence act (honey processing factory)  - Rural Infrastructure	- There's no regulation of the collectors, thus collection remains informal. - Honey adulteration occurs between Collectors and processor due to weak linkage also lack of regulation quality from the body government. -Honey is bought from open market that results in low quality honey . Due to this processors shun away honey from collectors. - Remote areas are difficult to access due to poor roads. Thus, transport costs are high.
Processors	-Dima Aidigrat honey processors	- Honey processing associations Honey processing associations -quality standard regulations license -business competition  - Tax and labelling	- Processors collect honey from different farmers and brokers through open market. So the quality of honey is low in the global market. - Due to high business competition, processors buy from traders offering the lowest price. - There's competition for market between processed and unprocessed honey products
Wholesaler	- Dima Adigrat Honey processed factory.	- Business license act. -Competitions act -global market - Honey processing associations Honey processing associations -quality standard regulations license	-wholesalers and distributors who sell honey into retailer and export market need to be licensed by public health.
-retailer	-retailer -Shops	- Trading policy	-Licences and public health requirements cause hiking of honey prices.
- Consumers	-Low income, high income and International honey consumers	Consumer preferences Quality preferences.	- White honey most preferred by consumers -Most of the honey sold in the district is direct from the producers. -High income are buying processed honey from shops. -Most low income consumer preferred fresh and unprocessed honey due to price sensitive .



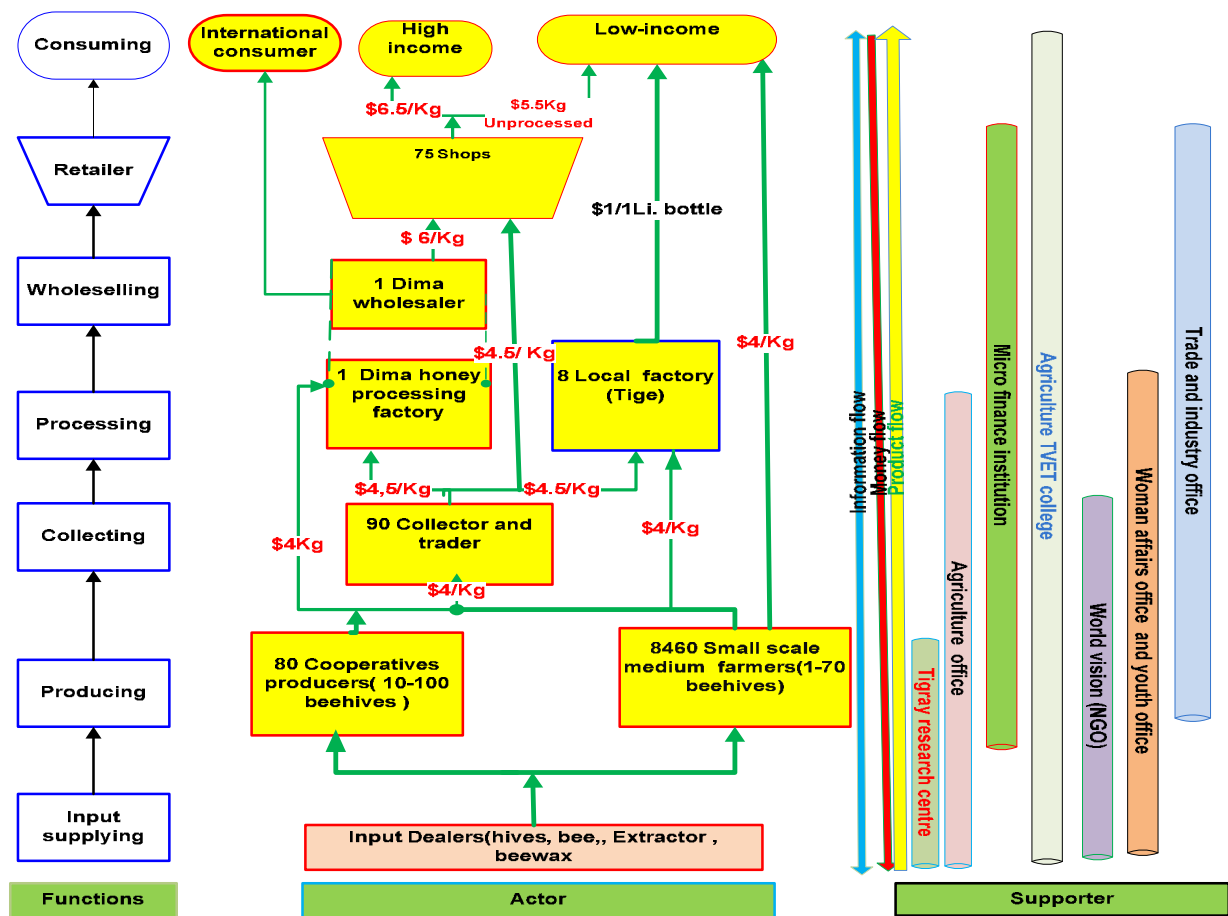


Figure 2: Value chain map

#### CHAPTER FOUR ORGANISATIONAL CAPACITY, PERFORMANCE AND CHANGE

The environment in which Livestock department is operating is dynamic and requires continuous transformations. Since policies, rules and regulations are changing; Livestock department has to change in order to fit to the current environment. Implementing projects towards value chain approach is a new phenomenon in the organisation. The European Centre for Development Policy Management ( ECDPM)'s 5 core capabilities model was used to assess the capacity, performance and suggestions for change for the organisation as shown in the figure 4.

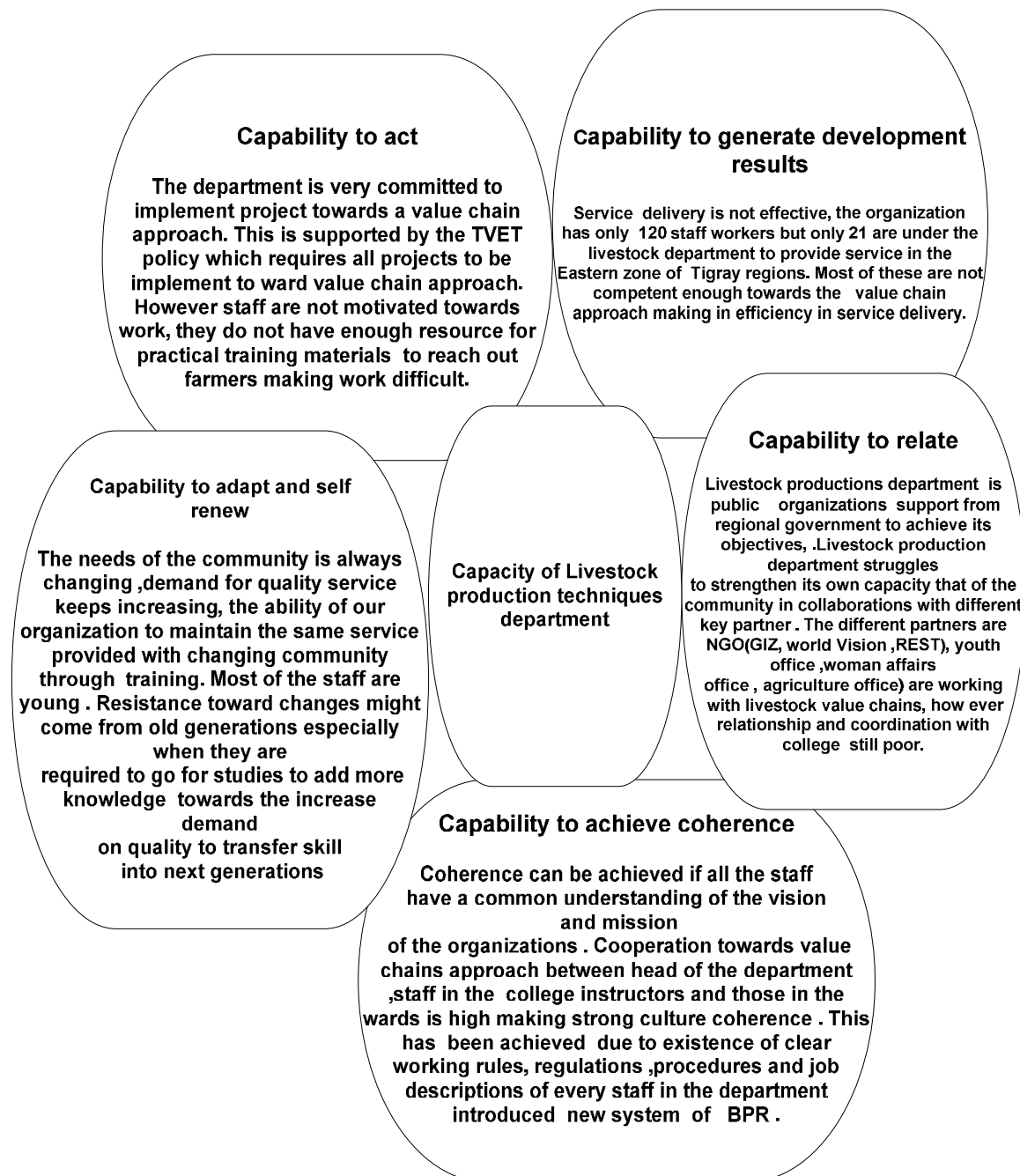


Figure 3: Five Core Capabilities

#### 4.1. Proposed changes for the organization

- **Systems and process.** The short and long training approaches in the Livestock production techniques should be practical oriented focusing more on developmental aspects to develop and improve honey value chains in the regions . There is need to include the activities of value chain approach in work plans in the department .
- **Staff capacity and establishment.** Most of trainers are inexperienced in practical training to handle upgrading strategies such as improving coordination of value chains. A staff career or manpower development program need to be developed to improve their capacity and also to motivate staff and improve staff output.
- **Linkages.** Stronger linkages with other stakeholders such as NGOs, research institutes, producer organizations, agriculture office , Women Affaires office, private companies and traders associations will improve co-ordination in implementing these upgrading strategies. Stronger relations will also enable innovation for mainstreaming value chain approach.

#### **4.2. Changes that I can influence with regard to capabilities and limitations**

- **Capacity building.** Carrying out training of trainers' workshop for students , instructors and all staff to shift their mindset towards value chain approach as intermediaries to mainstream value chain approach. This is to motivate staff and students in carrying out assigned tasks related to value chain upgrading.
- **Networking** Improving linkages and relations of farmers with training organizations to upgrade new technology to embed value chain approach to other stakeholders. e.g. The beekeeping forum initiative.
- **Sensitization.** Politicians in the college such as the dean of the college, trainers and trainees need to be sensitised so that the approach can be adopted by the regional and district development committees on natural resource sector.

#### **Limitations**

- **Control on budget allocations.** Allocation of funds and resources is done by the head regional state who also receives instruction externally from head office and ministry level limiting my capacity to allocate funds to value chain related activities.
- **Political interference.** Interference of politicians in new projects to gain political mileage in the area.

### **CHAPTER FIVE**

#### **CONCLUSIONS**

##### **5.1. The Organization**

Factors that hinder changes in the department towards mainstreaming of value chain approach are

- Few members of staff in relation to the demand of services in the District.
- There is limitation on budget allocation for training on value chain approach . The college can only afford to train a few students and farmers at a time from the whole Eastern zone of regions.
- Low understanding of the mission of the organization by staffs in divisions leads to difficulties in mainstreaming of value chain approach.
- Weak practical exposure and limited availability training materials facing challenging to carry out duties and share knowledge's to the mainstreaming vale chain approach.
- Low output of experienced workers
- Weak linkages with key stakeholders strategies and low capacity of staff.

##### **Factors that support mainstreaming of value chain approach are;**

- High working experience among staffs in the department.
- Self-motivation among staffs to work.
- Interest and participation of trainees (farmers and students ) increases every year.
- Willingness of other stakeholders to work in collaboration with the department.
- Capacity of college to co-ordinate all value chain related activities.

##### **5.2 Institutional environment**

##### **Institutional factors that hinders development of dairy value chain**

- High costs of agricultural inputs like modern beehives , honey extractor and bee wax increases costs of production as a result of high VAT on imported raw materials.
- High number of legislations and regulations to be complied with by the actors, thereby increasing the cost of doing business.
- Gender imbalance on property ownership among the community members hinders female right to owning property like land. beekeeping are mostly owned by men while women tend for the beekeepers. Men also make most of the decisions in their households.
- Low access to agricultural finances by small scale farmers due to inadequate collateral coupled with high interest rates.
- lack of regulations like the quality Act especially regarding to code of conduct of private practitioners.

##### **Factors that support changes in the department towards mainstreaming of value chain approach**

- Existence of policies and strategies that support value addition like the Livestock policy, TVET policy( short and long term training strategy), departmental strategic plan, and the Agricultural Sector Development Strategy.
- Existence of formal and informal producer groups within the community, in addition existence of Dima Adigrat honey processing factory.
- High level of literacy amongst the community.
- Conducive political environment and support from the politicians for the value chain.
- suitable Climate ( semi humid) for the beekeeping production.

## CHAPTER SIX RECOMMENDATION

Based on the findings above, Livestock production department is not effective in performing or facilitating governance of sustainable value chains. Changes need to be carried out to improve capacity to upgrade and improve value chain approach.

The following recommendations can be considered for further analysis and implementation by Livestock production department :

- Providing a platform for staff contribution to strategic development issues and not a top down approach.
- Lobby to fill all vacant posts and increase posts for trainers to increase training coverage to all of the region. i.e. to cover more wards so that TVET collage can be more effective in improving value chains.
- Improved communication at all levels and co-ordination between technical trainers and operating staff.
- Designing an effective feedback mechanism on reports to improve on performance of technical training toward the value chain.
- Providing access of loans and inputs to farmers using donor subsidies by guaranteed government agriculture office.
- introducing of quality regulation system from the government to encourage formal trading and food safety.
- improving practical training oriented program by finding budgets from NGO and public sector.
- Identification of HIV/AIDS focal persons at college level to mainstream HIV/AIDS in TVET collage programs.

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