SOUTHERN NEW HAMPSHIRE UNIVERSITY

&

THE OPEN UNIVERSITY OF TANZANIA

MASTER OF SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT (2007)

ASSESSMENT OF COMMUNITY BASED ANIMAL HEALTH SERVICES PROJECT IN HANANG DISTRICT, MANYARA REGION

MWAKASYUKA FRIDAH STEVENS

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE MASTER OF SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT IN THE SOUTHERN NEW HAMPSHIRE UNIVERSITY AT THE OPEN UNIVERSITY OF TANZANIA

MWAKASYUKA FRIDAH STEVENS

SUPERVISOR CERTIFICATION

I, the undersigned, certify that I have read this project report titled, "ASSESMENT OF COMMUNITY BASED ANIMAL HEALTH SERVICES PROJECT IN HANANG DISTRICT, MANYARA REGION", and I accept it a partial fulfillment of the requirements for the Master Degree in Community Economic Development of Southern New Hampshire University of the United States of America and the Open University of Tanzania.

Name of Supervisor: Dr. James L.A. Kisoza

Supervisor's signature: ....Kisoza.....

Date: 22nd October, 2007

STATEMENT OF COPYRIGHT

DECLARATION

I, Fridah Steven Mwakasyuka hereby declare that, this is my own work and it has not been submitted to any other higher learning institution for the similar award or degree.

Student's Signature .....

Date: 22/10/07

DEDICATIONS

To my beloved husband Charles and my dearest son Issaya, for their understanding, tolerance and encouragement during my studies.

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ABBREVIATIONS

ADRA	Adventist Development of Relief Agency
ALDO	Agriculture and Livestock Development Officer
ASAL	Arid and Semi Arid Land
CBAHW	Community Based Animal health Wor
CED	Community Economic Development kers.
CBO	Community Based Organizations
CHAWAHA	Chama Cha Wahudumu wa Mifugo ya Jamii – Hannang
DAH	Decentralized Animal Health
DALDO	District Agriculture and Livestock Development Officer
DED	District Executive Director
DVO	District Veterinary Officer
DFID	Department for International Development.
EEC	European Economic Cooperation
EU	European Union
FAO	Food and Agriculture Organization
FARM Africa	Farm and Agriculture Management for Africa
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
NORAD	Norway Agency for Development.
NGO	Non Governmental Organization
OAU	Organization for African Union
SUA	Sokoine University of Agriculture
URT	United Republic of Tanzania
VEO	Village Executive Officer
VETAID	Veterinary AID
WAMIJA	Wahudumu Wa Mifugo Ya Jamii

ABSTRACT

The researcher worked with a Community Based Organization known as CHAWAHA (Chama Cha Wamija Hanang), which operates in 18 villages of six wards in Hanang district Manyara region. Provision of effective veterinary services to livestock keepers and improvement of peoples livelihood especially in the project area was the main goal of this project. The project aimed at reducing livestock death incidents through proper livestock keeping by ensuring availability and provision of vaccines and treatment to live stocks, advocating for proper animal husbandry (proportional of number of livestock kept and grazing area). The project also aimed at improving provision of animal health services system by establishing disease surveillance system and training of community based animal health workers who work as

Para -professionals.

Through observation and focused group discussions the researcher was able to get detailed results on the status of livestock keeping in the district especially on vaccination and treatment. Despite the fact that there is large number of livestock in the district which is a major source of income, extension services to provide knowledge and skill on proper livestock keeping to farmers is inadequate. Hence it is difficult to have enough professional extension workers CBAHW is recommended to be an optional, so there is a need to formalize the system, to empower them by building their capacities and also to reform policies which hinder community based animal heath care.

EXECUTIVE SUMMARY

This project was carried out in Hanang District, in Manyara Region. It focused on the area of livestock keeping in Hanang District. It comprises community needs assessment, problem statement, literature review, methodology used, presentation of results, conclusion and recommendations. Hanang district has 22 wards and population of about 204,640 people with growth rate of 4.2% (URT, 2002 population Census). Hanang district is one of the poor districts in Tanzania with an average income of less than a dollar a day per person. Livestock keeping is the main economic activity in the district. This study was conducted to assess health services provided to the livestock in the district as a means of improving animal health and increasing production in order to boost individual farmer's income and ultimately the income of the district and contribute to the national income at large.

The study applied exploratory research methods with aid of questionnaires, direct observation and focus group discussion to collect the information and come up with unsatisfactory result, showing that, about 93.3% of all livestock do not have access to extension services, 96% have no access to veterinary medicine and there fore 93% of all livestock keepers have not received any vaccine for their livestock.

Thus this project for livestock development was proposed to be implemented in Hanang district. Its goal was suggest how to reduce livestock death incidents through proper livestock keeping system, prevention and treatments and provide effective veterinary services to the livestock in Hanang District so as to improve their livelihood.

CHAPTER ONE

COMMUNITY NEEDS ASSESSMENT

Livestock keeping is a traditional business in Tanzania. The business is more common in some area, Hanang district is one of the districts with large number of livestock and the livestock keepers are the majority of the district population.

Livestock keeping is still carried out in a traditional system where they used to keep large group of cattle regardless of their quality. Having many livestock is considered as wealthier and hence is a prestige. Normally group of cattle kept by livestock keepers remain unhealthy and they lack the real value of wealth.

Consequently, with all big number of livestock it does not worth and there is no such benefit to the livestock keepers. Thus, livestock keepers in Hanang district are still poor and they are below poverty line.

1.1 Community Profile

1.1.1 Demographic factors

Hanang District has a total population of 204,640 people. Out of this, 104,185 are male and 100,455 are females. The population growth rate is 4.2% per annum and hence population projection for the year 2006 was expected to be 246,523 people. (URT, 2002). According to the District Executive Director annual report (2003), more than 85% of the people are livestock keepers.

1.1.2 Administrative units and geographical location

Hanang district is located between 4^0 and 5^0 latitudes south of Equator and between 34^0 and 35^0 longitudes east of Greenwich Meridian. It is in between 1,000 and 2,000 meters above sea level on Rift Valley highlands. The district is of the five districts of Manyara region and it comprises twenty two (22) wards and 61 villages. It borders Kondoa district to the south, Babati district to the east and Iramba district to the west. To the north the district borders Mbulu district.

1.1.3 Socio-economic factors

The average income of the people in this district is about Tsh 850.00 per day. Majority of the Hanang residents earn their income through animal products which come from livestock marketing because about 70% of the district total population are pastoralists. The rest of people earn their living through crop husbandry whereby they cultivate different crops like sesame, maize, pigeon pea and sunflower. Some people have formal employment and some are businessmen.

There are very few Non-Government Organizations (NGOs) which support development of the district but the active NGO is The Adventist Development of Relief Agency (ADRA) which is working extensively in water and health issues. The literacy level is moderate with 52% and 66% enrollment rate.

1.1.4 Community needs assessment

The concept of community needs assessment connotes a process by which assessment of the current situation in the community is undertaken, value-based judgments regarding the preferred or desired situation are reached, and some determination of the priority status of local needs is made. As noted in the IFAS Leadership Development Program Publication, the accurate appraisal of the current situation is an important element in this process. In most instances, this entails the collection of first-hand information from relevant audiences. The present publication details five procedures which have enjoyed much success as primary data collection techniques. The purpose, approach, and method of implementation of each approach are outlined, as well as some of the advantages and disadvantages inherent in the respective techniques.

According to Hanang District Annual Reports, the district needs about forty five veterinary officers to serve the farmers in the area but the actual number of the vets available is only eleven. Of these eleven, seven are stationed at the district headquarters and the rest five are in the wards near the headquarters. It is the district plan to have at least one vet in each village but none of the villages are having these experts.

This depicts the need for extension workers in the area. Village livestock farmers and the district officials interviewed expressed their views that lack of these extension workers leads to poor provision of livestock health services in the whole district.

Despite the lack of extension workers in the area villagers keep large number of cattle as part of their culture and for prestige.

The district officials revealed that, the majority of the pastoralists need training on proper and sustainable way of livestock keeping. Farmers have no knowledge on the effects of keeping large cattle herds as they don't see the relevance of keeping less number of cattle because this is their tradition. This tradition has resulted in ever increasing number of cattle herds which they cannot afford to take care of especially during dry seasons when green pastures dwindle.

1.2 Research Objectives

The general objective of the study was to assess the community livestock keeping practices in Hanang district.

The specific objectives for this study were:

- To assess the availability of extension services in relation to cattle deaths incidences in the study area.
- To examine factors that influence pastoralists to keep large cattle herds that are inversely proportional to the size of the pastoral area available in the district
- To recommend and implement some recommendations on improvement of livestock keeping in the study area.

1.2.1 Research questions

This study was guided by the following research questions:-

Do livestock receive regular treatment and vaccine from extension workers as required?

- What are the factors influencing pastoralists to keep large cattle herds that are inversely proportional to the size of the pastoral area available in the district?
- Are cattle deaths in the study area a result of inaccessibility of extension services?

1.3 Significance of the Study

The study presents answers to whether livestock receive regular treatment and vaccine from extension workers as required and depict factors influencing pastoralists to keep too large cattle herds that are inversely proportional to the size of the pastoral area available in the district. This study also provides respondents perception on cattle deaths in the study area in relation to accessibility of extension services.

The study results are useful for policy makers in making and amending the related policies. Furthermore, it provides recommendations that act as base line for improving livestock keeping in rural areas.

Lastly, it is a useful literature for other researchers and academicians that are interested with the study.

1.4 Research design

The study employed cross-sectional survey in order to gather relevant information from livestock keepers, community leaders, government officials, and NGOs concerned with livestock keeping activities in the study area. This was necessary so as to get concrete information from various stakeholders in the community on different perspectives that were then used to assess livestock keeping activities in the study area.

1.5 Sample Size

Six wards out of twenty-two wards were purposefully chosen because are the ones in which CHAWAHA operates. Each ward had three villages in which all were chosen in the sample and made a total of 18 villages. Ten pastoralists were picked from each village to make a total of 180 respondents. The sample was considered representative due to the fact that pastoralists in the district bears common characteristics, hence no much difference responses would be expected on their views regarding problems underlying livestock keeping among them. The common characteristics were like sharing similar pastoral area, climate, diseases and nomadic kind of life.

1.6 Sampling Techniques

The sample population was obtained from the villagers' register available at each village government office with the help of the VEOs. The names were then written each in a separate peace of paper that were then tossed and sample of the population was picked from there at random.

1.7 Research Methodology Used in Community Needs Assessment

Methodology is a systematic way of solving the research problem. This part shows the main research methods used in the study which includes questionnaire, focus group discussion and observation.

1.7.1 Questionnaires

A structured questionnaire (Appendix 2) was employed to capture both qualitative and quantitative data from livestock keepers. It consisted of both open and close ended questionnaires. The distribution and collection of questionnaires was mostly done in the afternoon when majority of respondents were available at their homes. The whole exercise was administered by the researcher with a maximum collaboration of three assistants of which two were from CHAWAHA and one from VET Aid. Two assistants from CHAWAHA were experienced livestock keepers with basic knowledge on livestock keeping while the other from VET aid was a professional veterinary officer with first degree in Veterinary science of the University of Agriculture (SUA) Morogoro.

The study received a fairy higher rate of response. The general rule used to determine the response rte was "higher is better" (Fink and Kosecoff, 1985). Its confidence level is estimated to 96.6% which is 174 out of 180 responses. However, the response rate was high enough to ensure the reliability of data. The study was purposely biased; it involved a large number of men because in pastoral communities only few women do own cattle herds.

1.7.2 Focus group Discussions

Group discussions were conducted to twenty members using structured questions that were prepared to gather information on the views of the pastoralists regarding the study objectives. This gave room for thorough discussion on the issues rather than the use of questionnaires and observation methods. During discussion group members provided data on frequency of services, service providers in the area as well as frequency of getting services and challenges behind community animal health care system. However among 20 (twenty) community members only 3 (15%) confessed to have access to the services. Challenges mentioned included distance to veterinary service posts, transport fares, and allowance to carter for the purchase of medicine and vaccines.

1.7.3 Observation

Physical observation was employed in the study area to see the actual situation of cattle and pastures so as to supplement data obtained through questionnaires and focus group discussions. This also was used to harmonize the information obtained from extension workers and pastoralists. Researcher visited grazing areas, homes and veterinary shops. In community meetings pastoralists complained about distance to veterinary posts, price of medicines and inadequate number of professional animal heath workers. This information was noted down for analysis. It was revealed that most of the pastoralists have inadequate knowledge of the right proportional of animals per grazing area, hence large numbers of cattle herds were being grazed in a small area.

1.7.4 Documentary search

Documentary search was used to obtain secondary data from the existing literatures regarding livestock keeping in the study area. Information was gathered from CHAWAHA meeting minutes, DED annual reports and other documents obtained from other NGOs in the district. Other sources of secondary data include the libraries at the ministry of Livestock Development, Ministry of Food and Agriculture. As well as libraries of higher learning institutions including; OUT library, UDSM and Sokoine University of Agriculture.

1.8 Data Analysis and Presentation

Data collected was subject to both qualitative and quantitative analysis. The Statistical Package for Social Science, version 11.5 for windows, was employed in data analysis in order to confirm the validity of the parameters used in the study. Microsoft Excel was also used to present different data in figures in an easily understandable way.

1.8.1 Findings in Community Needs Assessment

Through The application of all these tools, the study gave a detailed result on the status of livestock keeping in the district especially on vaccination and livestock medicine.

Despite the fact that there is large number of livestock in the district and being a major source of income, extension services aimed at providing knowledge and skills on proper livestock keeping for farmers were reported to be very low. Only 6.7% of the livestock keepers received extension services leaving 93.3% of all livestock without

access to extension services, 96% are not accessible to veterinary medicine and therefore 93% of all livestock keepers have not received any vaccine for their livestock.

This status leads to low production and income from the livestock sector in the district.

1.9 Results and Discussion

This section involves presenting and discussing data obtained in the field aiming at answering the research questions. It involves doing comparison of the respondents' responses to reveal the real situation as per objectives of this study.

1.9.1 Socio-economic characteristics of respondents

Out of 180 respondents who were involved in this study, 15% of the respondents ranged from 30 to 39 years of age, 35% from 40 to 49 years and 31% from 50 to 59 years. Respondents aged 60 and above were 19% of the total sample population. 89% and 11% of the total sample population were men and women respectively. Table 1 indicates the age-sex sample distribution.

Table 1: Age-sex Sample Distribution

Age of respondents	Sex of respondents		Total number of respondents	Percentage
	Male	Female		
30-39	26	1	27	15
40-49	60	3	63	35
50-59	45	11	56	31
60 and above	30	4	34	19
Total	**89%**	**11%**	**180**	**100**

Source: Field survey, 2006

1.9.2 Provision of livestock treatment and vaccine in the study area

Table 2 presents the results on the responses on vaccine provision to the pastoralists in the study area.

Table 2: Responses distribution on vaccines

Responses		Frequency for receiving vaccine by pastoralists		Total (%)
		Once per year	Not a single day	
Receivable of vaccine by pastoralists from the district	Yes	12	N/A	6.7
	No	N/A	168	93.3
Total (%)		**6.7**	**93.3**	**100**

Source: Field Survey 2006

Table 2 shows that only 6.7% of the pastoralists interviewed received vaccine from the district once per year on average. Ninety three percent of the sample population said that they had never received vaccine from district at all.

1.9.3 Respondents' Responses on Accessibility to medicine

Table 3 presents the results obtained on the accessibility of medicine by respondents (pastoralists) in the study area.

Table 3 Responses distribution on availability of veterinary drugs

Responses	Frequency	Percent
Yes	7	4
No	173	96
Total	**180**	**100.0**

Source: Field survey 2006

According to the data obtained as indicated in table 3 majority (96% of the total respondents) confirmed that there is no access to medicine for cattle treatment when they fall sick. Only 4% of the sample population had access to medicine in the area but they access them from the veterinary shops as indicated in table 4 which illustrates how pastoralists treats their animals when they get sick.

Table 4: Respondents animal treatment practices.

Responses	Frequency	Percent
Using traditional methods	173	96
By buying from veterinary shops	7	4
Total	**180**	**100**

Source: Field survey 2006.

Data shows that only 4% of respondents from sample population use modern medicine to treat their cattle.

This small population buys the medicine from veterinary shops. Ninety six percent treat their cattle using traditional methods as a substitute to western medicine because they can not afford to buy medicine from vet shops.

Table 5 shows information on the description of extension services provided in the study area.

Table 5 Response distribution on availability of extension services in the study area

Respondents' category	Frequency	Percent
Respondents received extension services	12	6.7
Respondents not received extension services	168	93.3
Total	**180**	**100.0**

Source: Field Survey 2006

The study revealed lack of extension services in the study area. Only 6.7% claimed to have received extension services in the area but only the vaccine service. The rest 93% of the respondents confirmed that there are no extension services.

1.9.4 Factors behind keeping too large cattle herds by pastoralists

In order to reveal factors that influence pastoralists to keep too large cattle herds that are inversely proportional to the size of the pastoral area available in the study area, researcher interviewed some community members but also questionnaire used as a main tool to collect data. However, the study discovered that pastoralists keep large cattle herds that are difficult to manage.

Table 6 and 7 shows the distribution of (sheep and goat) and (cow and donkeys) by respondents respectively.

Table 6: The Distribution of the number of goats and sheep kept by respondents

Class intervals for the number of goats and sheep	Number of respondents	Percent
1-25	33	18.3
26-50	66	36.7
51-75	46	25.6
76-100	30	16.7
101 and above	5	2.8
Total	**180**	**100.0**

Source: Field survey 2006

Table 6 indicates that majority of the pastoralists keep between 26 and 75 goats and or sheep. It shows that 36.7% and 25.6% of the pastoralists in the area keeps between 26-50 and 51-75 goats and or sheep respectively. 2.8% of the pastoralists keep more than 101 goats and or sheep. Table 7 shows that 34.4% and 28.3% of the pastoralists in the area keep between 51 and 75 and 26 and 50 cows and or donkeys respectively. 14.4% of the pastoralists keep more than 101 cows and or donkeys. These data confirm the large possession of cattle herds by pastoralists in the area.

Table 7: Number of cows and donkeys kept by respondents

Class intervals for the number of cows and donkeys	Number of respondents	Percent
26-50	51	28.3
51-75	62	34.4
76-100	41	22.8
101 and above	26	14.4
Total	**180**	**100.0**

Source: Field Survey 2006

Table 8 below display the reasons behind keeping such large of cattle herd in the area.

Table 8 Reasons for keeping large number of cattle by pastoralists

Reasons	Number of respondents	Percent
Culture	107	59.4
Prestige	27	15.0
Wealth	36	20.0
Ignorance	10	5.6
Total	**180**	**100.0**

Source: Field survey 2006

Data in table 8 above shows that the major reason for keeping large number of cattle by the pastoralists in the area is culture. 59.4% of the respondents claimed that culture is the reason. Also prestige, wealth and ignorance appeared to be other reasons mentioned by 15, 20 and 5.6 percent of the total respondents respectively.

1.9.4.1 Respondents' Responses on proper Livestock keeping Knowledge and Skills

Table 9 below indicates the knowledge and skills of proper livestock keeping by the pastoralists.

Table 9 Respondents knowledge and skills on proper livestock keeping

Respondents category	Frequency	Percent
Respondents without knowledge and skills	180	100.0
Respondents with knowledge and skills	None	None

Source: Field survey 2006

The results obtained in table 9 shows clearly that there is no single pastoralist with

proper livestock keeping knowledge and skills. A hundred percent of the respondents agreed that they have inadequate knowledge and skills on how to conduct proper livestock keeping that is sustainable for development.

1.9.5 Correlation of inadequate extension services and cattle death incidences in the study area

In order to know a real situation on accessibility to extension services and availability of extension worker(s) in the study area, interview with DALDO, community members and questionnaire used.

1.9.5.1 Respondents' responses on the availability of extension workers in the area

Table 10 gives the results on respondents' response regarding reasons behind livestock deaths in the area.

Table 10 Respondents' reasons behind their animal deaths

Responses	Frequency	Percent
Lack of extension service	58	32.2
Lack of enough pastoral areas	4	2.2
Large number of cattle herds	104	57.8
All above	14	7.8
Total	**180**	**100.0**

Source: Field survey 2006

As stated earlier in table 5 only 6.7% of the respondents were accessible to extension services, and it was for vaccine provided only once in a year. The 93.3% majority said they'd never received any extension service from the district council. Some other few respondents (2.2%) mentioned pastoral area as the reason for death of cattle herds especially during dry season, when large number of cattle had to compete just for a small potion of green pastures. As a result most of them die. Further, 57.8% of respondents cited large number of cattle herds as the major reason. Most of the pastoralists fail to take good care of their cattle because they have large number of cattle herds. However, the researcher was told that number of cattle herds became even a big problem from 1980s when government stopped providing free vaccines and medicines to pastoralists, as a result most of them failed to meet the introduced costs. Again, as mentioned earlier, the problem of having large number of cattle became even worse during the dry season.

CHAPTER TWO

PROBLEM IDENTIFICATION

It is important first to identify the real community problem before thinking of solving it. In the overall context of the planning process it becomes much more sensitive particularly when the human element is interjected. This chapter therefore defines specific area which need action by the community and change organization (CHAWAHA). It states the situation, in which the community is confronted, identifies target community of the proposed interventions, identifies project stakeholders who may have stake in the proposed project as well as it identifies the project goals and objectives. Lastly it analyses the host organization (CHAWAHA) its structure, goals and objectives and how these relate to the needs of the proposed project.

2.1 Problem Statement

A widespread death of livestock is the problem that has been documented in Hanang district council and in reports of various development organizations working in Hanang. The problem was revealed and recognized as a major setback because livestock keeping is the major economic activity undertaken in Hanang district. The death of livestock is a threat to the sustainability of the livestock keeping activities in the district. Livestock deaths increased from 25% to 42% in 1993 and 2003 respectively. (DED, 2003). This problem affects the majority of people in Hanang district because over 85% of the total residents are pastoralists. The increasing death rate of livestock in the area is a result of inadequate animal health extension services

to meet the large demand arising from a huge number of cattle in the area. The district faces the problem of inadequate extension workers to provide the extension services to the livestock available because it has only eleven veterinary officers that does not suffice the district demands. However pastoralists keep too large number of livestock that is difficult for them to handle especially during dry season in the area in which a number of animals die of hunger because of shortage of food staff for the large herds. Pastoralists also lack the knowledge and skills on proper livestock keeping for sustainable livelihood. (*ibid*).

Livestock sector therefore needs an immediate intervention to ensure reliable provision of treatment and intensive care for livestock for better animal health that will eventually improve socio-economic status of the people and ensure sustainability to the sector. Intensive measures if not taken to solve the problem pastoralists will continue increasing their cattle herds and hence overgrazing problems will arise due to scarcity of pastures. With the development of infrastructures and agricultural activities, it is conspicuous that pastoral areas are being depleted and can cause more problems with livestock keeping-activities especially animal deaths due to lack of enough food during dry season. It may also create conflicts between pastoralists and farmers (i.e. in case pastoralists decide to graze their cattle on crop plantations).It is the aim of this study to assess the community animal health services in the district and find out how this problem could be solved by using the local available resources. The

research will come up with possible recommendations which will be implemented as a project as per Community Economic Development (CED) course requirements.

2.2 Target Community

The project is targeting six wards of Hanang District, where there are substantial number of livestock keepers who depends to a large extent on the livestock for their livelihood. The project serves the livestock keepers in Hanang district especially targeted wards to improve animal health. Particular target was focused to these communities with intention of raising livestock production and ultimately contribute to the national efforts of Growth and Reduction of Poverty. Three community members from each ward (six wards) were selected by community members to be community based animal health workers, who will be trained and given tool kits and perform as paraprofessionals. The need of community animal health workers had been given priority by people of this area after animal health services had been privatized by the government. Livestock keepers in rural areas were faced by inadequate community based livestock care system which could support stipulation of animal health care, support of disease surveillance and support of medicine supply. This situation lead to people of Hanang especially those six wards to think of having their own CBO to support animal health services especially in rural area where there is shortage of extension services from government professional extension workers, which is the long run will lead to increased animal mortality rates, reduction of livestock products as well as deterioration of livelihood of the rural community.

2.3 Project Goal

The goal of this project was to provide effective veterinary services to the livestock keepers in the study area so as to improve their livelihood through livestock.

2.4 Project Specific Objectives

- To establish and register a CBO (CHAWAHA) by Dec 2006
- To draw up and legalize a constitution by Jan 2007
- To organize and implement community awareness creation program by March 2007
- To train 18 community members from 6 wards of Hanang district on basics of proper caring, vaccination and treatment of livestock, business management and income generating by May 2007.
- To provide livestock vaccines to 6 wards in the district by December 2007.
- To provide 18 sets of medical kits to clusters of livestock keepers in 6 wards.

2.5 Project Stakeholders

Different stakeholders were involved in the implementation of the project. Among them were the community, VETAID, Food and Agriculture Research Management Africa (FARM Africa) and the CED practitioner (the researcher).

2.5.1 Stakeholders Analysis

Stakeholders are defined as "individuals or organizations that stand to gain or lose from the success or failure of a project". For a livestock project, this can include project managers, district officials in Hanang, live stock keepers, the community as

users of the services. There are also stakeholders who support the project technically and financially, these include NGOs working in the district.

Since, by definition, stakeholders are those who are impacted by (or have an impact on) the project, their perspectives need to be taken into account in order for a project to be successful. Stakeholders can have positive or negative views regarding a given project, and often don't agree with one another, making it a challenge to reconcile their varied viewpoints. Stakeholder analysis is a very effective mechanism for bringing other perspectives into the design process. Over the years, the user experience field has seen a flowering of methods and techniques for understanding users. It is time to expand the focus and include the perspectives of others who are impacted by (or have an impact on) user experience work. Stakeholder analysis is an effective way of making that happen.

2.5.2 Importance of doing Stakeholders Analysis

Despite identifying project stakeholders, it is important to conduct kind of analysis for detailed understanding of our stakeholders. Analysis of stakeholders helps us categorize different types of stakeholder based on their important, influence and interest on project under consideration and thus judge their inclusion in the project. Experience has shown that inclusion of the full range of stakeholders is not only an essential pre-condition for successful participatory decision-making but also vital for promoting equity and social justice in project implementation. For example, when decisions are made, priorities set, and actions taken without involving those relevant stakeholders, the result is usually misguided strategies and inappropriate action plans

which are badly (if at all) implemented and which have negative effects on the beneficiaries. These approaches, which fail to properly involve stakeholders, have been widely proven to be unsustainable.

This Stakeholder Analysis Tool therefore encourages a far-reaching review of all potential stakeholder groups, including special attention to marginalized and excluded social groups such as the poor, women like those who are actively participating in the livestock keeping in Hanang District. It is also well recognized that broad-based stakeholders' involvement and commitment is crucial to successful strategy and action plan implementation and therefore facilitate sustainable implementation of development project. The stakeholder analysis facilitates mapping of potential stakeholder roles and inputs and access to implementation instruments. This will indicate how best to maximize the constructive potential of each stakeholder whilst also revealing bottlenecks or obstacles that could obstruct realization of their potential contributions.

2.5.3 Types of Project Stakeholders

In this analysis project stakeholders were identified in their organizations or specialty and ranked on their priority and influence.

- **Community**

Livestock keepers participated in all stage of the project implementation, monitoring and evaluation, and on the sustainability of the project.

- **Hanang District Council**

The council supports the project through provision of professional extension officers to direct and support the community based animal heath workers, district Agricultural and Livestock Development Officer assisted in the implementation process especially with expertise in monitoring and evaluation, and project sustainability.

- **CED Program Tanzania**

The goal of CED program in this project was to enable a researcher (student) to work with project to improve skills in CBO at local level and so CED student worked as a part time staff in the project during implementation of various activities, assessed project performance at all the time, also helped to enhance the CBO to propagate for best practices of community based animal health care to 18 villages in the study area.

- **CHAWAHA, VETAID & Food and Agriculture Research Management Africa (FARM Africa)**

Will help in expertise support, Trainings also will assist in various activities like vaccination and treatment. They will also take part in the provision of extension services to the livestock keepers.

Table 11 presents a summary of stakeholders' analysis indicating their participation in the project, benefits/costs from the project and opinions regarding the project.

Table: 11 the Project Stakeholders Analysis

Stakeholder	Participation in the project	Evaluation	Impact of participation	Rate	Plan
Central Government	Collaborating partner in supporting and management of the project	Medium	Positive impact, led the project to have an effective link with national program	Medium	To fed the project result into the national program for livestock development.
District officers (DALDO) (DCDO) (DPLO)	Facilitate the planning process in the community, monitoring and evaluation	High	Positive impact, community people were highly encouraged and they are willing to participate in the project.	High	Share responsibilities with NGO leaders to mobilize and raise awareness of the community.
CHAWAHA	Participate in Need assessment and defining the community problem. Participate in planning of the project.	High	Positive impact on Need assessment, defining problem and project planning.	High	Plan to improve capacity and training skills to train livestock keepers. Organize vaccination campaign
CED Program participant	Impart necessary skills and knowledge on project design and management	Medium	Positive on research on the problem, need assessment and design the project. Also assist in building the capacity of the community	Medium	Plan to technical skills and backstopping on the management and sustainability
VETAID	Participate in problem design, planning for monitoring and evaluation	High	Positive impact led to writing problem statement	High	Plan to involve them actively through out the project period and financing
FARM Africa	Participate in problem design, planning for monitoring and evaluation	High	Positive impact led to writing problem statement and project design	High	Plan to involve them in financing and participate actively in the project implementation through out the project period and
Live stock keepers	Livestock keepers participated in all stage of the project implementation, monitoring and evaluation, and on the sustainability of the project	High	Positive impact	High	Training in all aspect of livestock care and management.
Veterinary clinic	Participate in the implementation especially provision of veterinary medicine, treatment and advice on the proper uses.	High	Positive impact	High	To cooperate and involve them at all stage of the project
Community members	Assist in the identification of need and information about major problems	Medium	Positive impact	Medium	To involve them at all stages of project

2.5.4 Host Organization

The host organization of the project is CHAWAHA (CHAMA CHA WAMIJA HANANG) which intend to mitigate shortage of animal health services, poor drugs delivery system and lack of communications among livestock keepers and increase knowledge on animal health care which will help community to have reliable animal health delivery system. Also to provide animal health services and conduct community awareness. The project was implemented in collaboration with community members, Hanang District Council, CHAWABA, Food and Agriculture Research Management and VETAID.

2.5.5 How delivery of animal health system started:

CHAWAHA adapted skills and techniques from CHAWABA in Babati. The project together with village authorities and district council selected community animal health workers who were trained on basic animal health care system and monitoring and evaluation. CBAHW were also trained on business management and income generating activities which helped in sustaining the system. Community based animal health workers are expected to perform as paraprofessionals. They do support treatment of prevailing livestock diseases. CBAHW in collaboration with professional extension workers are campaigning for proper livestock keeping which includes prevention of animal diseases by vaccination, dipping, hygiene and good animal husbandry. CHAWAHA is doing lobbying to stakeholders so that trained CBAHW will get refresher courses and assisted with tool kits and bicycles to ease their work.

The livestock development project in Hanang District was planned to be implemented in 2 years. The project aimed at improving animal health services in 18 villages of six wads in Hanang District by coordinating volunteer animal health workers in the district, capacity building to community animal health workers in order to provide good services to livestock keepers as well as lobbying and advocacy.

2.6 Organizational Structure

The group organization structure (Appendix 3) starts with the general meeting that composes of all group members. The group chairperson chairs the general meeting. The general meeting is the top decision making body. In this meeting members get plenary forum to be briefed and comments on the progress of the organization. After the general meeting follows the executive committee which meets quarterly to monitor the operations of the organization and to approve organizations progress reports and budgets. In a descending order of seniority executive committee composes of: chairperson, vice chairperson, secretary, deputy secretary, treasurer and deputy treasurer. The executive committee is accountable to general meeting. Further more executive office constitutes with project senior manager who is an overall in charge of daily activities i.e. supervisor for fund rising, community capacity building, animal health delivery and marketing units. Also he is responsible for daily monitoring of project activities, ensures constant availability of vaccines and medicines, ensures that animal surveillance service is done as required etc. There are four units under senior manager which are fund rising unit, community capacity building unit and animal health services unit and marketing unit.

2.6.1 Principles guiding the Organization.

CHAWAHA set some principles to guide its day-to-day operation that are as follows:

i) Transparent among staff, stakeholders and external clients.

ii) Commitment and dedication to achieve organization mission.

iii) Cooperation among staff and building team spirit.

iv) Peace and harmony.

CHAPTER THREE

LITERATURE REVIEW

A literature review is a body of text that aims to review the critical points of current knowledge on a particular topic. Most often associated with science-oriented literature, such as a thesis, the literature review usually precedes a research proposal, methodology and results section. Its ultimate goal is to bring the reader up to date with current literature on a topic and forms the basis for another goal, such as the justification for future research in the area.

A good literature review is characterized by: a logical flow of ideas; current and relevant references with consistent, appropriate referencing style; proper use of terminology and an unbiased and comprehensive view of the previous research on the topic. A literature review discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain time period.

A literature review can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information. It might give a new interpretation of old material or combine new with old interpretations. Or it might trace the intellectual progression of the field, including major debates. And depending on the situation, the literature review may evaluate the sources and advise the reader on the most pertinent or relevant.

This chapter therefore, dedicated to a survey literature related to livestock keeping practices and their likely impacts on livelihoods of people throughout the world. It gives the theoretical review, empirical and policy reviews to get handful information on best practices of livestock keeping.

3.1 Theoretical Literature Review

During the colonial and immediately post-independence era most clinical vet services in most areas were provided by private practitioners and 'Vet Scouts'. The private practitioners were confined in high potential areas, mainly in the so-called white settler areas. Vet Scouts were local livestock keepers who received informal training from local vet staff, were employed by the County Council and seconded to the government, and lived and provided clinical and other services in the villages. Haas, (1991). The concept of Community-based Animal Health Workers (CAHW) probably arose from experiences in the human health sector. The term "barefoot vets" (Halpin 1981) seems to derive from China's successful and ongoing use of "barefoot doctors" to bring basic services to the general public, as described by Chetley (1995).

According to Chapman, and Fisher, (1999) the private practitioners went out of business. Many were expatriates and left the country. Although clinical services became more accessible in the high potential areas, they did not improve much in the arid and semi-arid areas (ASAL) because relatively fewer vets and AHTs were posted there and, without enough vet Scouts or any other intermediaries, they could hardly

reach the ASAL nomadic herds because of the vast distances, poor terrain and poor road network.

The first decentralized animal health (DAH) scheme was quietly established in 1980 by an NGO in Turkana District, in ASAL area in northern Kenya. Dr Darlington Akabwai, a Ugandan vet, trained some of the Catechist of the Catholic Diocese of Lodwar to treat common livestock diseases as they traveled around doing their other duties. (Sabatier and Jenkins (1999). This model of animal health care delivery gradually evolved into the Adakari Vet Scout programme promoted by the EEC-funded Turkana Rehabilitation Programme in the late 1980s and the Norwegian Overseas Aid (NORAD) programme in Turkana in the early 1990s. DFID, the EU and OAU/IBAR started to put pressure on the government to support CAHW schemes in the mid 1990s.

In the early 1970s, the World Bank advocated that livestock producers' associations should include "grassroots level Para-veterinarians" (de Haan and Nissen 1985). This advice was influential and raised awareness. Since that time, various actors have developed and refined CAHW systems. For example, in eastern Africa, nongovernmental organizations (NGOs) and bilateral agencies have been particularly influential, whereas in Southeast Asia, government veterinary services have been at the fore in their development (Leidl, 1996). Extension services in the livestock sub-sector in Tanzania are in most cases of the general agricultural sector. The agricultural extension service in Tanzania has for many years been entirely financed by the public

sector (MAC, 2000). Over the years, there has been too much direct government involvement in the management of the sector with declining resources, while coordination with the private sector, church based organizations and other non-governmental organizations (NGO) has been minimal. Of recent, extension services are also provided by the private sector, as farmer led initiatives and private agribusinesses have started to supplement public extension services. However, Leyland, et al (1998), paper on delivery of animal health services in East Africa especially to pastoral communities, explains various methods which are used to establish community based animal health care which includes restructuring of government veterinary services, the liberalization of pharmaceutical supplies, using participatory techniques and liberalization of various animal health delivery systems. Further more the paper indicates that community-based animal health delivery systems (CAHS) do have a very significant impact on improving livestock owners' productivity and food security.

The paper also suggests that in order for community based animal health care to be sustainable there is a need to initiate more community based animal health care system pilot projects. Further economic analysis of benefits and costs and impact assessments of community based animal health care systems to be carried out. It also suggests networking organization to start in order to disseminate information on methodologies and economic viability of community based animal health care system. However, this paper recommend to the veterinary authorities, associations and

privatization schemes in Eastern Africa to recognize and certify the roles played by community based animal health workers, certificate and diploma holders, and also to enact policy and legislative reform to allow veterinary supervised community based animal health workers to be encouraged and legalized.

As in these extensive production areas, conventional private practice is not likely to be a viable option; possible alternatives would include allowing government veterinarians to take a time commercial veterinary practice. Alternatively, self-financing para-veterinarians or, in the case of pastoralists, trained workers from the community, could be developed (World Bank 1994). The identification of potential contact farmers by SHDDP created a misunderstanding. On one hand it was feared that the project was creating a parallel extension service to that one of the government. On the other hand, the new contact farmers expected that they could be considered for employment by the project. The situation was even further aggravated by the fact that the monitoring unit of the project used them to collect data and paid them for this task. It was in view of this confusion that the project decided to take an alternative channel, "the user oriented approach", in working with paraprofessionals. Two categories of paraprofessionals were proposed, Farmer Motivators and Community-based Animal Health Workers (CBAHW). The main roles of these paraprofessionals were to sensitize their fellow farmers in their respective groups to adopt good cattle management practices and perform primary animal health practices. It was proposed during the planning of SHDDP Exit Phase that trainings for CBAHW and Farmer Motivators should be combined in order to allow one person to perform both functions (Tenga *et al.* 1999).

The importance of the recognition of CBAHW by local government authorities should not be underestimated (Bachmann 2003). Many CBAHW perform their tasks within the 'protected' environment of a village government with a recognition letter from District Veterinary Officer, the CBAHW scheme operated for most of its time outside the legislation, although a new law has now secured the CBAHW a legally recognized place in the national animal health delivery system. Until recently, a number of veterinarians saw these CBAHW as their competitors, overlooking the fact that this group of people only emerged as a reaction to the veterinarians' inability to render services in remote areas.

Jones et al (1998) article on experience in community animal health delivery system in Southern Sudan explains that a project was initiated in 1993 to control rinderpest and by 1994 to control other diseases through development of community based animal health system. Activities included participatory baseline surveys, community dialogue to identify priorities and develop social contracts, training of community-based animal health workers, animal health auxiliaries and stockpersons, development of veterinary coordination committees, and monitoring. Further it was found that there were 1,057 animal health workers providing services to 80% of agro-pastoralist areas. In terms of drop out of the community based animal health workers the rate was 12%. It was also shown that one million cattle had been vaccinated against rudderpost annually since 1993 and increasing numbers of other vaccinations and treatments provided for cattle, sheep, goats and poultry. However it was highlighted that there were some constraints including insecurity, poor access, lack of mobility, minimal infrastructure and trade,

lack of veterinarians and climatic extremes. Lastly it was concluded that community based animal health care system in an under-developed agro-pastoralist community is a viable method of delivering basic animal health services.

Key features of CBAHW are their low overhead costs and their willingness to live as member of the local community in remote areas. Livestock keepers appreciate this system of service delivery through paraprofessionals, in particular the availability of and easy access to CBAHW -more or less around the clock in cases of emergency. Living in the same village or area, CBAHW are integrated into the local community. They charge low rates for services and drugs and they have much lower overhead costs (transport, equipment, and infrastructure) than veterinarians. On the other hand, CBAHW know their limitations in terms of training and knowledge and refer difficult cases to veterinarians in nearby rural centers. In short, CBAHW are able to provide services to livestock keepers in areas that could and would otherwise not be served by a private veterinarian. Although these veterinary paraprofessionals cannot be a fully substitute for veterinarians. CBAHW are able to provide a cheap, locally available basic health care service that can lead to quite dramatic improvements in animal health.

On assessing factors which contribute to community based animal health care Catley and McCauley, (1998) found that the sustainability of community based animal health workers development relies on the degree of integrity of financial management of drug inputs and a satisfactory remuneration for the individual community based animal

health workers. Financial transactions through private sector channels without the involvement of committees or associations were most sustainable. Generally, many committee-managed revolving funds are not sustainable; they die in a short time.

3.2 Empirical Literature Review

Most of the NGOs involved in early CAHW projects did little research beyond the minimum necessary to set up their projects, and minimal monitoring and evaluation. Others who have visited CAHW schemes claim that they were convinced by the evidence of their own eyes, the evidence presented by veterinary staff involved in the schemes and the enthusiastic support of the schemes by livestock owners. Some of the most influential evidence seems to have been the enthusiasm of communities for the CAHW approach, both to participate in them, and to talk about them with visitors. Lipsky (1980).

Mounting experience indicates that auxiliaries and community-based animal health care workers are more suited and reliable in delivering veterinary services in marginal, low potential areas than are the public veterinary services or private sector veterinarians. Veterinary auxiliaries or community-based animal health care workers offer an affordable alternative to deliver selected services, even on a commercialized basis. Lay veterinary personnel are often highly motivated and in many countries (Bangladesh) women are the primary providers of basic animal health services in communities (FAO, 1997b).

The concept of training and working with community-based persons as subject matter specialists emerged in the project in the early 1990s. During this period the project was using a top-down approach (called Training and Visit System) seeking systematic use of diffusion processes with regular extension visits to designated "contact farmers" (Roling 1988). It was during this period that the project chose a farmer in each dairy group to use his/her infrastructure for demonstration to fellow farmers and visitors. Later, some farmer trainees termed as "contact farmers" received more training than others with the aim of going back to train their colleagues and support government extension agents.

A study by Hanks, et al (1999) critically analyzed the process of selecting and supporting community based animal health workers in Ghana, the results were as follows: inadequate information regarding the role and responsibilities of community based animal health workers was provided to district and field level veterinary and extension staff, poor flow of information restricted the selection of appropriate trainees, there were direct relationships between the selection process for community based animal health workers and their ultimate success and sustainability. Producer groups, including women producers, were the most effective at selecting effective community based animal health workers; wider community participation or representation was not guarantee effective selection; livestock ownership and literacy were common criteria for selection, but there was no apparent correlation between this and success. There was also male bias amongst both selector groups and community

based animal health workers. Training is effective but gaps remain, contact between community based animal health workers and supervisors varied, but was of real importance, effective programme monitoring required improved procedures and co-operation between supervisors and community leaders. Lastly it was suggested that the impact of decentralization on the supervision of community based animal health workers should be carefully monitored.

SHDDP started the CBAHW programme with the aim of building an affordable, viable and self-sustaining basic animal health service delivery system, managed by the communities themselves, (SHDDP 2000), and can be seen as the initiator of this approach in Tanzania. Moreover, it aimed at encouraging the use of local knowledge on animal health through sharing experiences, for instance documentation and research. CBAHW are local people, who have been selected by their fellow farmers in their respective dairy farmers groups and received training under the facilitation of SHDDP on various aspects of basic disease diagnosis and treatment. Generally, CBAHW provide extension services on animal husbandry as well as diagnosis and treatment of common and locally specific diseases, they perform minor surgical procedures like wound treatment, bloodless castration and they dispense veterinary medicines. To further strengthen the position of CBAHW, the project conducted review workshops by involving CBAHW and other stakeholders and it conducted Newcastle disease vaccination campaigns under the supervision of respective District Veterinary Officers (DVO), the main objective being to assess the broadened service delivery. While CBAHW originally confined their work to the cattle of dairy farmer

group members, they later expanded their work to livestock species other than cattle and extended their outreach to all livestock keepers in their respective village area.

The performance assessment of CBAHW (Mwakalile and Meramba 2002) based on information from 95 CBAHW. Figures (%) mentioned here refer to this sample. Technologists rely on the farmers' milk brought to the processing unit or the milk kiosk in order to do their job. Going private and starting their own business is an option for these trained dairy technologists, which may in future grow and become an interesting alternative for some of them.

The nomination of CBAHW was done by the dairy groups, which considered education, cooperation, permanent residence, gender and creativeness as criteria for selection. The groups supported their selected members in their efforts to acquire the required skills for the job and contributed money to their training and to the procurement of material needed by these paraprofessionals to do the job and render the services expected from them. As a result, the CBAHW program was first of all owned by the group. The paraprofessionals remained dependent of the group with no real identity of their own and a rather low self-confidence. These close links and the resulting dependency might not be too conducive for a further development of the program. The tripartite agreement (MOU) involving CBAHW, the dairy group and the Village Government has been drafted from the point of view of the community, as it mainly addresses the paraprofessional's obligations in serving the community. The spirit of such an agreement differs from an agreement, wherein a paraprofessional would offer their services to the group based on their own terms and conditions.

Nevertheless, the specialization gives the paraprofessional a special status within the group. (AU/IBAR) identified over 390 CAHW projects in Horn of Africa countries alone. Growing interest in CAHW systems is largely related to the high impact on animal health and human livelihoods resulting from improved basic veterinary care in rural communities. Some examples includes;. A review of Oxfam UK/Ireland's CAHW project in northeast Kenya in 1998 compared livestock mortality in project and non project areas (Odhiambo *et al.* 1998). In non project sites, annual mortality in camels, cattle, and sheep and goats was estimated at 31%, 32%, and 25%, respectively, whereas in project sites, annual mortality was 20%, 17%, and 18%. The reduced loss of livestock was valued at Kenya Shillings 22,853 (approximately US $350) for each household in the project area, and this sum was sufficient to buy grain to feed two adults and four children for 250 days.

Established in 1998, a CAHW project in Simanjiro District, Tanzania, was assessed in May 2001. The use of interviews and participatory methods showed how Maasai pastoralists associated the CAHW service with reductions in calf mortality of between 59% and 93%. This led to increased sizes of milking herds and more cows milked per household. For example, the average number of cows milked per household increased from 5.3 to 24.2 cows. Communities concluded that the increased milk availability had a huge impact on local food security (Nalitolela *et al.* 2001)."From discussions with various actors a general agreement evolved that a viable private vet practice would need at least 500 regular 'client' animals whose owners are prepared to pay full rates. Veterinary Extension Officers claimed that they would need at least 200 animal clients

as a minimum threshold for successful private operation. These figures have to be seen in the context of an average of only 20 cows per group in Iringa and 39 in Mbeya (Tarnutzer *et al.* 1999)."

In some communities members are very much scattered, and CBAHW find it difficult to do their job satisfactory. Some few groups mentioned that they would find transport facilities for their CBAHW, while other groups indicated that the CBAHW will have to find their own transport facilities, but only two groups indicated that clients should bear cost of transport for the CBAHW on call. The majority of the groups didn't indicate who would bear transport cost. Prospects that the work of paraprofessionals is profitable in viable (self-) employment opportunities in the near future are still low, although some persons may already get some financial returns from their new technical skills (Bachmann, 2003). Paraprofessionals and their communities know the importance and the value of training. Many groups indicated their intention towards meeting some of the costs for the CBAHW training sessions, and in some few cases CBAHW were ready to pay for attending a certificate course.

Nevertheless, neither the majority of CBAHW nor of the groups can pay on their own the high costs for training and they may seek funding from different sources such as government agencies and donor funded projects. The fact that paraprofessional programmes are often not integrated in national and local government systems makes things even more difficult and threatens their sustainability. Multi-partnership between the respective communities, local and central governments supported by donors and NGOs is required in development and sustenance of the programmes.

3.2.1 Sustainability and effectiveness of Community-based Animal Health Worker delivery systems

Livestock owners recognize they have the animal health problem. Local communities participate in an interactive way in all aspects of service development, including defining the problem, planning, contributing time and resources, defining criteria for selection of CAHW and agreeing on a prescribed relationship with private vets; which includes payment of full cost for services rendered by CAHW and the government vets who regulate and monitor. Participate also in selecting CAHW, conducting post-training reviews, monitoring, and de-selecting CAHW who perform poorly, as well as identifying refresher training. The community animal health workers system is more or less based on sound business principles in terms of loans, capitalization, reinvestment, turnover, and profit generation. Normally trainings based on participatory and adult-learning methods, are standardized and flexible to respond to needs within different communities. The roles and reporting relationships of the cadres of "CAHW," "Animal Health Technicians," and "veterinarians" are described and recognized by the veterinary authorities. This includes geographical definition of where CAHW are allowed to operate. The opportunity exists for private veterinary practitioners to be awarded contracts for provision of public goods and services (vaccination, disease surveillance) so that the so-called "sanitary mandate" is availed.

The policies and strategies of the veterinary authorities towards Community-based Animal Health Systems (CAHS) are in line with practice and enforcement of

veterinary professional legislation, including pharmaceutical supply laws. Although CAHW have provided very useful primary animal health care services to livestock keepers, many projects have failed to address important technical, social, and sustainability shortcomings. Indeed, a very wide range of modes of project design and implementation are currently used, with varying levels of success.

Common key weaknesses with CAHS include failure to fully involve communities in analysis of problems and solutions, and limited attention to financial sustainability (McCorkle 2003). Within Africa, many years of experience have demonstrated the importance of establishing CAHW systems as partnerships between communities, government, and the private sector.

3.2.2 Deficiency in Sustainability

Sustainability of the project can be set back by the fact that most programs for establishing and supporting community-based animal health workers are donor supported or are operated by non-governmental organizations, which obtain their resources from external sources. Some districts have started incorporating community-based animal health services in their development programs. It will take time before these programs are fully appreciated and owned by most decision makers at the district and central government levels.

Implementation approaches of community-based programs will have to be reviewed. Some projects assisting community-based animal health workers programs adopted the approach of starting in the community in rural areas, expecting that the resultant

changes will influence decision and policy makers to adopt the system, though still there is no evidence to prove the success of this approach. Community-based Animal Health Systems (CAHS) have been developing since the early 1980s across all continents. Their success in delivering animal health services to remote, marginalized, and under-served livestock-keeping communities and the consequent improvements in livelihoods has led to a concerted drive to ensure the sustainability of such delivery systems through privatization and the development of enabling policies and legislation, which led to practitioners and advocates of such systems to consider and respond to core non-animal health challenges to CAHS including poor access to markets, lack of voice of marginalized communities in policy processes, conflict, and the negative consequences of disaster relief strategies.

Before 1986, the Government provided most livestock services, both public and private. Consequently, the Veterinary legislation, most of which was passed during colonial times, was less significant. Experience in districts that already benefit from services provided by CAHWs shows that privatization of clinical services delivery can be achieved, at least in part, through the sanctioning and support of paraprofessional and community-based animal health workers. This gradual transfer of clinical service not only introduces a culture of paying for services in rural areas, but also permits central and local government veterinary departments to re-allocate resources and direct them towards veterinary activities defined to be in the "public good". Furthermore, training by use of harmonized curricula and guidelines to enable CAHWs to participate in diseases surveillance and supervised clinical services have proved that

CAHWs could be useful in diseases surveillance and mass vaccination campaigns' (Muchina Munyua, 1999).

Following introduction of a pluralistic political system and free market economic policies in late 1980s, the Government started to get on several reforms that resulted in hiving off a number of commercial related services to the private sector and concentrating on regulatory, policy formulation and law enforcement functions. More elaboration on the Livestock Sub-sector reforms was provided in the Animal Health Strategy in 1998. The main objective of the animal health strategy is to devise means for efficient utilization of both public and private sectors in accelerating efforts towards reduction of animal diseases, morbidity and mortality and protect livestock and livestock consumers against infections, pests and diseases. The overall principle embedded in the strategy is that farm level disease control is the responsibility of the livestock keeper and services such as drugs, vaccines and inputs should be sought from the private sector. The role of the Government is limited to the control of epidemic and infectious diseases, sanitary control, inspection and controlling pests and diseases, which are in such a magnitude that individual farmers cannot control. (Ratabanzibwa, 2001).

An alternative approach to reaching the poor with clinical veterinary services, that is, promotion of the use of community based animal health workers (CAHWs), was introduced in Tanzania since early 1990s through a number of donor funded projects and Non-Governmental Organizations initiatives. A sizable success of community

based animal health services programmes has been noted. However, experience has shown that if the attempt is to succeed the participation and support of the professional veterinary community at the district, regional and national level is necessary. However, there are risks associated with community animal health workers introduction. Inadequate investigation capacity of local livestock practitioners that may lead to faulty identification of local needs have been observed. Further, improper selection and training of CAHWs and inadequate monitoring of their field activities normally lead to abuses and failures in animal health care delivery. An unreliable drug supply line and smuggled-in drugs add more problems to the already unregulated system.

3.3 Policy Literature Review

3.3.1 Veterinary Surgeons Ordinance

The Veterinary Surgeons Ordinance was enacted over forty years ago. Except for the amendments, which were made in 1966, mainly to streamline the process of registering state veterinarians and introduce exceptional circumstances under which unqualified persons may perform treatment and operations to animals, the Ordinance was never reviewed to suit conditions of the time. The Ordinance recognizes one category of animal health providers, namely, degree holders in veterinary surgery. Under section 3 of the Ordinance *"No person shall, unless he is registered under [the] Ordinance, practice or hold himself out, whether directly or by implication, as a practicing, or being prepared to practice, veterinary surgery"*. The only provision that can be used to allow other animal health practitioners to take part in animal health

services delivery was introduced in the Ordinance by the 1963 amendments under section 23. The Section allows minor treatment, test or operations specified by order of the Minister, in consultation with the Veterinary Board, to be practiced by non-professionals.

The section also provides in the schedule exemptions from restrictions, which include the following: (i) Any treatment given to animal by owner thereof, other member of the household or a person in the regular employment of the owner; (ii) Anything done otherwise for reward, by a person engaged or employed in farming to an animal owned for purposes of agriculture; (iii) Anything done in rendering of first aid for purposes of saving life or relieving pain;

(iv) Anything done by Government or Common Service Organization veterinary employee in the course of his employment on instruction of a veterinary surgeon; (v) The destruction of any animal by painless methods. It may be argued that one can use the above-cited exceptions to allow primary livestock health services providers to practice in rural areas. This argument is defeated by the following factors: (i) The exceptions are limited to treatment of own animals, therefore they do not allow any practice that is commercial oriented; (ii) They are only flexible to Government veterinary employees who may not be allowed to provide commercial animal health services under the current reforms; (iii) They are silent on lower cadres in the livestock health services provision, such as Para-veterinarians, Para-veterinarians assistants and community-based animal health workers. If it was intended that these exceptions could operate to these cadres, the Ordinance would have said so unequivocally and

procedures for their legal recognition and control would have been included in the law. Thus, amendments that were introduced in 1963 in the Veterinary Surgeons Ordinance did not go far enough to introduce changes that could make this legislation operate under the current reforms. In light of the current reforms, the Ordinance still suffers from the following weaknesses: (i) it does not make a distinction between state veterinarians and private or practicing veterinarians or ordinary veterinary surgeons and veterinary specialists. This implies that once registered under the Ordinance any veterinary surgeon could practice as a veterinary surgeon. Under the current reforms where functions of state veterinarians have been differentiated from those of private veterinary practitioners, incidences have been observed of conflict of interests by Act No. 1 of 1963.

Also Porter, and Prysor-Jones, (1997) talks on NGOs, been seeking to influence the government in favor of CAHW schemes since the mid 1980s. The focus initially was on convincing field-staff to help establish pilot projects, and later on identifying and developing individual supporters in provincial and national levels and research institutes. It was not until late 1997 that serious thought was given to how to lobby for the development of livestock more effectively. Vets everywhere object to the concept of non-vets providing even relatively simple veterinary services. Most believe that they are the only people sufficiently well qualified to treat animals. Most countries have legislation preventing non-vets treating animals (usually in something similar to the Veterinary Surgeons Act) and possessing ethical drugs (in something like a

Pharmacy and Poisons Act). Many countries vets seem to hold this view particularly strongly.

3.3.2 The Pharmaceuticals and Poisons Act

The Pharmaceuticals and Poisons Act was enacted in 1978 to control importation, manufacturing, distribution and dispensing of both human and animal pharmaceuticals and poisons. The Act establishes a Pharmacy Board under the Ministry responsible for human health. Its main functions include: registration and control of pharmacists, regulating manufacturing, importation, sale and distribution of pharmaceuticals and poisons. Further, the Act, under sections 15 and 16 prohibits persons other than registered pharmacists to carry on the business of a pharmacist. The sections also prohibit persons other than registered pharmacists in the course of any trade or business to manufacture or dispense any drugs except under the immediate supervision of a pharmacist. Under the Act no person can obtain a license to sell Part II poisons unless he is a registered pharmacist.

The Pharmaceuticals and Poisons Act is criticized as being inadequate because it does not provide for a legal environment for animal health services provision, mainly because it excludes veterinary surgeons from the business of selling or dispensing veterinary drugs. Another normally forgotten weakness in this legislation is that it does not provide for a legal mechanism whereby primary animal health service providers in rural areas, who are currently dealing in animal drugs supplies, could be regulated. Further, the Act does not provide a mechanism on how it will be linked or

coordinated with the Veterinary Surgeons Ordinance.(Rutabanzibwa, 2001). However Garrett, and Islam, (1998) says that there are two clauses at the end of the Act added in recognition of the fact that many of the larger commercial farmers of the time provided their own veterinary services. These clauses allow anyone to treat their own animals, or those belonging to a neighbor, provided it is not done for profit. The Pharmacy and Poisons Act limits the sale of pharmaceuticals (including veterinary pharmaceuticals) to registered Pharmacists. Veterinarians are allowed to keep limited stocks of drugs for their own use while treating animals, but they are not allowed to sell them.

3.3.3 The Animal Diseases Ordinance

Another legislation that concerns provision of animal health services, mainly for public good purposes, is the Animal Diseases Ordinance. The main objective of the Ordinance is to control the introduction and spread of animal diseases in Tanzania. The Ordinance was enacted more than fifty years ago; it thus contains some terms with colonial connotations, which need to be amended.

The Ordinance provides for appointment of Director of Veterinary Services, Veterinary Officers and Assistant Livestock Officers and gives them powers as inspectors to control the introduction and spread of notifiable diseases. The ordinance also provides for measures that could be taken in such controls and obligations of livestock owners. Although the Ordinance was supposed to define public goods activities that are supposed to be performed by state veterinary officers or their

assistants, its weaknesses in the implementation of the current reforms include the following: (i) Appointment of Director of Veterinary Services, Veterinary Officers, Assistant Livestock Officers or Inspectors is not linked with their professional qualifications; (ii) Field Livestock Officers or Para-veterinary professionals, most of whom are acting as regulators in districts, wards and villages in rural areas are not recognized by the Ordinance; (iii) Services that were considered as public services such as compulsory dipping, vaccination, meat inspection, which under the current reforms have been earmarked that could be contracted out to private sector, are still the responsibility of state veterinarians; 7 For example, the South African Veterinary and Veterinary Para-veterinary Professions Act, of 1982 has a section on dispensing of medicines.

3.3.4 Government Policy

So far there have been unclear policy positions for provision of animal health services in rural areas. Currently livestock development policy position of; "privatization of veterinary services and drug supply will be gradual, starting in urban and peri-urban areas where services can easily be provided by the private sector", implies that animal health services delivery in rural areas will continue to be provided by the government (or local governments). However, in an effort to implement government reforms, the government has stopped to provide veterinary drugs and other services, which are considered services. Under the local government reforms district authorities are in a process of contracting out private animal health delivery services.Districts' resources are limited and cannot support provision of private good services. Moreover, there are

few state veterinarians in districts, almost one per each district who is normally overwhelmed with service. The trend therefore shows that given these shortcomings, the government is prepared to allow practice of a certain degree of veterinary services by lower cadres than veterinary surgeons, but it is hesitating to make a policy commitment to this effect.

3.3.5 Action Plan

Review of the Veterinary Surgeons Ordinance is now in progress. A debate whether to include community based animal health workers in this legislation is by no means closed. However, there is an indication that the approach used in the revision of the Pharmaceuticals and Poisons Act is mostly preferred. Proposals that are widely accepted in the revision of this Ordinance include the following: (i) Introduction of the notion of "veterinary specialist"; (ii) Recognition of enrollment and control of para-veterinarians; (iii) Recognition of enlisting and control of para-veterinary assistants; (iv) empowering the Minister to issue regulations providing for exemptions to practice by other persons. Thus, in order to achieve the objective of enhancing the capacity and regulatory framework of primary level animal health workers in Tanzania, efforts geared towards its realization should be an integral part of the country's poverty reduction strategy. To this regard, livestock could be seen on one hand as a means of alleviating poverty, and, on the other hand, as an economic activity to be supported because of the contribution it makes in meeting rapidly growing demand.(Ministry of Water and Livestock Development, 2001).

3.3.6 Government and animal health Policy Context

The government acknowledges that effective control and frequent monitoring of animal health disease incidences is very important to the achievement of an increased production in livestock sector and decreasing risks for the livestock owners (Livestock sector development strategy analysis, April 2001).However, poverty and diminishing animal health delivery system in rural areas still remains the main factor limiting livestock production in the country (Cornelis de Haan et al 1985). Needless to say, achieving effective animal health delivery services coverage needs allocation of fund and a well defined and coordinated multidisciplinary animal health services structure in the government.The provision of private animal health services were, and still are, mainly governed by the Veterinary Surgeons Act (no 1 of 1963) and the Pharmacy and Poisons Act (Section 15 & 16). The Veterinary Surgeons Act was borrowed mostly unchanged from the British Veterinary Surgeons Act. This Act broadly limits the practice of veterinary medicine and surgery to registered veterinary surgeons, and staff under their direct supervision. Crewe, and Young, (2002)

In De Vibe, Hovland and Young, (2002) we found that SNV and GTZ both became involved in CAHW projects with the government in the mid 1990s. Their involvement helped to bring the CAHW concept into the open and the government started to address the policy issues.DFID and EC advisers played a significant role in raising the policy debate in the mid and late 1990s. The EC proposed and funded the

influential Hübl study in early 1998. Political systems in Tanzania are intrinsically conservative and slow to change.

CHAPTER FOUR

IMPLEMENTATION

This section provides both the original plan and the actual implementation and reports that were accomplished in this project. The products, outputs, inputs and activities that were needed to achieve the set goals are also summarized in this section. It presents the project implementation plan.

4.1 Products and Output

4.1.1 Reduction of livestock deaths

Trained community animal health workers are now assisting to treat livestock in case of diseases. The project is doing lobbying to stakeholders so that the community animal health workers will get refresher courses to keep them up to date. In collaboration with professional animal health workers they are doing campaign on prevention of animal health diseases through vaccination, dipping, and hygiene good animal husbandry. Sharing of experience has been done especially with district in order for the impact to benefit others outside the district.

4.1.2 Improvement of provision of animal health system

This project facilitated the training of animal health workers who were selected from villages by village leaders and district Council. The training was on basic animal health care, planning of animal health care system, monitoring and evaluation. Also they were trained on income generating activities as well as marketing, which will help them to find reliable market for their products. Trained community health workers are expected to work under village animal health workers.

Products

- Improved community knowledge on proper livestock keeping.
- Decreased dependency syndrome among the communities who used to get free animal health services from the government and now are paying to sustain their animals.
- Increased people income as well as improved nutrition status by increasing animal products as milk and meat.
- Increased and strengthened local market of animal products.
- Increased women participation in various activities as treating animals and leadership (CBO Chairperson is a woman).

Project implementation matrix was prepared in order to make the project follow a right way and also build a basis for monitoring and evaluation. Table 12 shows the planned project implementation matrix (logical frame work).

Table 12 Project Implementation Matrix

Intervention logic	Objective verifiable indicators	Information source	Assumptions
Project goal: The goal of this project is to provide effective veterinary services to the livestock keepers in Hanang District so as to improve their livelihood through livestock.	-Reduced incidences of livestock deaths -Increased Income of livestock communities in the district.	- Assessment of impact	-Community members are very positive with the project services
Purpose To ensure availability and provision of treatment to sick animals	-Cases attended	CBO reports	- Community will agree with and support the project intervention.
Outputs - Legalized activities performed by Community based animal health workers by establishing and registering a CBO and drawing up a constitution. - Increased number of pastoralists who use recommended livestock keeping methods - Reduced livestock death incidents through proper livestock keeping system, prevention and treatments - Improved provision of animal health services system.	- Established and registered CBO. - Drawn up and legalized constitution - Number of pastoralists using recommended livestock keeping methods increased from 15 to 1000 by 2008 - Decreased number of animal deaths. - Decreased overgrazing in project area - Existing vaccination and drugs supply system. - Physical visit to assess animal diseases in the community.	- CBO reports - physical verification - Records from Hanang district council. - CHAWAHA monthly report. - Report from district and community members	- Community will agree with and support the project intervention. - Livestock community members are willing to contribute for animal vaccination and treatment - Professional extension facilitate and support the system
Activities -To conduct community awareness and nomination of CBAHW - To establish and register a CBO and drawing up a constitution. -To organize education program for pastoralists on proper livestock keeping. -Participate in campaigns against animal diseases - Establishment of diseases surveillance system - Training of community based animal health workers	-Number of community awareness meetings conducted -Number of CBAHW selected -Registered CBO - Legalized constitution -Disease surveillance system operate Number of trainees who provide services on animal health	-Village reports -Assessment report -District council report -CBO reports -Physical verification	Availability of fund to conduct the training
Inputs: Funds, stationeries, animal health kits, staff, transport			

4.3 Project Planning

This section describes the planned project implementation that shows the lists of planned activities, responsible person for each activity, the resources required and planned delivery timeline as indicated in table 13.

Table 13: Project Implementation Plan

Activities	YEAR								Resources Needed	Person Responsible
	2006				2007					
1.To conduct community awareness and nomination of CBAHW	X	X							Fund, Transport	Management committee, District council and Community
2. To Establish and register a CBO.				X					Fund, stationary and transport	Chair person and Senior Project Manager
3. To prepare and legalize a constitution					x				Stationary	CBO members, district council
4. To conduct a 10 days training to CBAHW on basics of proper caring, vaccination and treatment of livestock, business management and income generating activities.						x		x	Training materials, Facilitation, Venue, transport meals and accommodation.	CBAHW, District council, Facilitators.
5. To establish livestock disease surveillance system					x	x	x	x	Transport, vaccination, medicines.	CBAHWs
6. To purchase and distribute vaccines and veterinary kits to 6 villages							x	x	Fund	CBAHWs, FARM Africa, Vet Aid and District Council
7. To procure and distribute 18 bicycles to 18 trained CBHWs for outreach services							x	x	Fund	CBAHWs, FARM Africa, Vet Aid and District Council
8. To participate in campaign against animal diseases and assist animal health workers in vaccination		x	x	x	x	x	x	x		CBAHWs, Ditrict council
8. Ongoing monitoring	x	x	x	x	x	x	x	x	Stationery	The Executive committee and facilitator
8. Evaluation				x				x	Stationery, transport	CHAWAHA members and facilitator

4.4 The Actual Project Implementation

This project was implemented in six wards of Hanang District namely; Basutu ziwani, Basodesh, Masakta, Katesh, Measqaron and Endasaki. The project aimed at building capacity of the CHAWAHA members a CBO operating in the area so that they can assume basic veterinary services as Community Based Animal Health Workers (CBAHW) to minimize the problem of lack of extension services.

This project intended to improve animal health services and so improve livestock keepers' livelihood through reduction of animal morbidity and mortality of livestock in Hanang District. By the end of the implementation period the health status of the livestock in Hanang district especially in 18 villages covered by this project will be improved. In view of the fact that livestock is the main stay of peoples livelihood, improvement in the livestock production will definitely contribute to economic status and well being of both the District and the peoples in Hanang. CBAHW have the potential to become an alternative for doing skilled work in rural areas, be it as demand driven 'self-employed' provider of services or as 'employee' of a community. There should be a scope for more direct contribution of communities in the capacity building of their CBAHW to ensure that a minimum level of service delivery can be maintained in an area, where these services would simply not be available. If affordable services are accessible and available for groups and their individual members, the services and work of CBAHW contribute to increased income at group and individual household level. Service delivery and work go beyond a pure economic client-customer relation, as CBAHW have high degree of identification with their

respective communities and its members. However, as sustainability is linked with viability, financial aspects and income opportunities for CBAHW will become in future even more important. However the status of project implementation is given in table 14.

Table 14: Project implementation status

Activities carried	YEAR								Resources used	Remarks
	2006				2007					
1.To conduct community awareness and nomination of CBAHW	X	X							Fund, Transport	Done
2. To Establish and register a CBO.				X					Fund, stationary and transport	Done
3. To prepare and legalize a constitution					x				Stationary	Done
4. To conduct a 10 days training to CBAHW on basics of proper caring, vaccination and treatment of livestock, business management and income generating activities.						x		x	Training materials, Facilitation, Venue, transport meals and accommodation.	Done
5. To establish livestock disease surveillance system					x	x	x	x	Transport, vaccination, medicines.	On Progress
6. To purchase and distribute vaccines and veterinary kits to 6 villages							x	x	Fund	Expected to be done
7. To procure and distribute 18 bicycles to 18 trained CBHWs for outreach services							x	x	Fund	Expected to be done
8. To participate in campaign against animal diseases and assist animal health workers in vaccination		x	x	x	x	x	x	x		Done and expected to be done as planned
8. Ongoing monitoring	x	x	x	x	x	x	x	x	Stationery, transport and lunch allowances	Monitoring was done and is expected to be done each month as planed
8. Evaluation				x				x	Stationery, transport	Mid term and summative evaluation was done, terminal evaluation is expected to be done as planned

4.5 Budget of the Project

The project was expected to cost about 68,000,000/=.The breakdown of estimated budget is summarized in table15.

Table 15. Project Budget

NO.	OBJECTIVE	ACTIVITIES	COST (T.SHS) IN THOUSANDS		TOTAL T. SHS.'000'
			YEAR 1	YEAR 2	
1.	conduct community awareness and nomination of CBAHW	- Prepare learning Materials	4,000		4,000
		- To distribute and organize awareness creation meetings	2,500		2,500
2.	Registering a CBO and preparation of constitution	- Drafting and reviewing a constitution	100		100
		- To prepare memorandum of understanding	100		100
		- To Legally register a CBO	500		500
3.	Training of community based animal health workers	-To prepare training materials		6,000	6,000
		To facilitate training		10,000	10,000
4.	Establishment of diseases surveillance system	- To prepare veterinary kits	2,500	5,000	7,500
		- Transport and lunches	1,000	3,000	4,000
5.	Provision vaccines and veterinary kits	- To purchase and distribute vaccines and veterinary kits to 6 wards		10,000	10,000
6.	Provision of bicycles	- To procure and distribute 18 bicycles to 18 trained CBHWs for outreach services		2,000	2,000
7.	Monitoring	-Transport and lunches	3,000	3,300	6,300
8.	Evaluation	-Transport and lunches		3,000	3,000
		-External evaluator		12,000	12,000
		TOTAL	13,700	54,300	68,000

CHAPTER FIVE

MONITORING, EVALUATION AND SUSTAINABILTY

This chapter presents how monitoring and evaluation was conducted. It includes reasons, objectives, indicators, questions research methodologies used and results for monitoring and evaluation. It also shows the planned and actual monitoring and evaluation conducted. Lastly this chapter justifies the sustainability of the project.

5.1 Project Monitoring

Monitoring of this project involved all stakeholders including the livestock keepers, District veterinary officer and the CBO members. Livestock keepers and CBO officers did a daily monitoring during field visit on their routine work; things which have been assed include growth, care and feeding.

5.1.1 Objective of Monitoring

The objectives of Monitoring framework for this livestock development project are:

- To compare the actual achievement of implemented activities against what was planned
- To develop clear monitoring and evaluation strategies that will facilitate systematic collection of data in the target project areas
- To provide timely and relevant information that will help the implementing CBOs district authority and CHAWAHA to identify problems and decide how best to deal with them.

5.1.2 Data collection methodology

5.1.2.1 Physical observation

Physical visit were paid by the principal researcher in collaboration with CHAWAHA management. This was effective in activities like community awareness meetings, contacting donors, animal treatment and vaccine practices and operation of established of surveillance system. Data on the progress of such activities were collected on site. Furthermore, the monitors made spontaneous adjustments on the undertaking of the activities whenever it was necessary.

5.1.2.2 Review of documents

The implementation of each project activity had to be reported. It was from these reports that data were collected. Reviews were made on project proposal, training reports, training manuals, village visitor's books, cases attended and reports on community awareness meetings.

5.1.2.3 Interviews

Face to face interviews were conducted to supervisors of activities, beneficiaries and stakeholders so as to obtain information regarding the progress of the project.They were semi structured to allow flexibility and detailed probing on the activities executed. However, interviewers sometimes rephrased their questions to obtain the desired information.

(iii) Focus group discussion (FDG)

FGD was conducted each month for monitoring purpose in which eight CHAWAHA members were nominated to participate, selection was randomly done. Stakeholders ie FARM Africa, VET Aid and District Council were invited. This gave chance for stakeholders to contribute on what they had in mind for the improvement of the project. Group members were given chance to give out the difficulties observed during implementation and solutions were proposed.

Table 16 presents logical sequence for systematic project monitoring. The table summarizes the list of activities planned to be monitored, time, duration for each activity to be accomplished and methods to be used. In this table measure of progress, anticipated barriers and their solutions are clearly shown.

Table 16: Original Project Activities Monitoring Plan

Activities	Duration	Methods	Current Progress	Barriers	Solutions
1. Introduce the project to the community.	1st Year	Review on the group minutes	-official courtesy call and other process should be undertaken	Negative perception by some people	Assure provision of information on project implementation to these people
2.conduct community awareness and nomination of CBAHW	1st Year	-Review the community meetings minutes -Review the agreement with district professional AHWs	-Community meetings conducted -Contacts with district Professional AHWs	- Shortage of Fund	- Fair allowances to facilitators. - CHAWAHA is well prepared for the needed fund
3. Registering a CBO and preparation of constitution	1st Year	-Review the memorandum of understanding - Review registering documents -Physical observation	- Constitution drafted and legalized. -CBO registered	Misunderstandings during constitution making Beaurocracy in registering a CBO	- Assure CBO members that constitution is for CBO well being - District council helped in registering a CBO
4. Training of community based animal health workers on basics of proper caring, vaccination and treatment of livestock, business management and income generating activities.	1st Year	-Review the training material -Review the trainees register	-A 10 days training conducted	Poor retention of the skills due to lack of education	-Encourage them for more practical participation
5. Establishment of diseases surveillance system	1st and 2nd Year	-Review village visitors books -Review cases attended through mobile service	On progress	Difficulties in reaching some places due to poor infrastructures	- District council promised to facilitate CBAHW in accessing all the places.
6. Provision of vaccines and veterinary kits	2nd Year	Physical verification	Not done	Shortage of Fund	-FARM Africa and VET Aid assured the CBO that they will release the needed fund
7. Provision of bicycles	2nd year	Physical Verification	Not done	Shortage of Fund	-FARM Africa and VET Aid assured the CBO that they will release the needed fund

The Table Format Source: Gajanayake (1993)

5.1.2.4 Monitoring Questions

i . Was the project introduced to the community as planned?

ii . Has the training being conducted as planned? What did they learn? Was it helpful to them? What changes will be seen as attributes of the training? What more do they need? Were the facilitators effective and efficient?

iii. Does the CBO legally perform its duties? Do they have a constitution? Do trained CBAHWs vaccinate livestock? Do they provide treatment?

iv How many cases they did attend? Does the livestock keeping practices improved?

v. Are vaccines and kits constantly available? Is there a schedule for animal surveillance service? What transport do they use? Were the bicycles been procured as planed?

vi. How many pastoralists can access vaccination and treatment services? How many pastoralists have abandoned traditional animal husbandry?

vii. Is there any evidence of increased income for pastoralists?

5.1.2.5 Indicators and tools.

Table 17 summarizes the indicators, tools/method and data source used in the actual monitoring of the activities of the project.

Table 17: Activities monitoring indicators and data source

S/No.	Activity	Direct indicators	Indirect Indicators	Tools/method used	Data source
1.	Introduce the project to the community. -conduct meeting with 18 community leaders. -Village leaders disseminate the information	Information available from village office	Project acceptance by the villagers	Interview and documentation	Village reports and meeting minutes
2.	Conduct community awareness and nomination of CBAHW.	- Number of awareness meetings conducted -CBAHW selected	Improved knowledge on proper livestock keeping	-Discussion with village leaders and CBO members -Interview	CBO records
3.	Registering a CBO and preparation of constitution -Organise CBO members -Revise project proposal -Prepare legal documents -Draft a constitution -Register a CBO	-Registered CBO - Existing constitution		Documentation review	- Registering documents - constitution
4.	Training of community based animal health workers on basics of proper caring, vaccination and treatment of livestock, business management and income generating activities. -Contact the facilitator and prepare training material - Conduct the training	-Number of participants - Training materials	- Improved knowledge of participants	Observation and interview	Training reports
5.	Establishment of diseases surveillance system.		-Number of outreach conducted -number of cases attended on outreach	-Discussion with CBAHWs -interview	CBO reports Village visitor's books
6.	Provision of vaccines and veterinary kits. -Contact supporting agency (FARM Africa, VET Aid) - Purchase Vaccines and veterinary kits - Distribute to trained CBAHWs,Conduct outreach services	Purchased vaccines and veterinary kits		Physical Verification	-CBO reports - Procurement records
7.	6. Provision of bicycles -Contact supporting agency (FARM Africa, VET Aid) -Purchase bicycles -Distribute to trained CBAHWs	Purchased bicycles		Physical Verification	-CBO reports - Procurement records

5.1.2.6 Monitoring Institutional arrangement

The livestock development project in Hanang district has four main stakeholders arranged in different level of monitoring process.

Level one: Community livestock keepers groups which represent the community

Level two: Implementing NGOs Farm Africa, VETAID working in Hanang district

Level three: CHAWAHA: A host NGO responsible for supervision of the activities.

Level Four: District authority especially the agriculture and livestock office.

These four major levels were the active participants of the project monitoring and of the whole implementation time of the project.

5.1.2.7 Monitoring Results

The results of initial monitoring of project activities shows that most of the project activities were accomplished as planned. Establishment and registering a CBO was done as well as drafting and legalising a constitution. The project was introduced to the community and community awareness creation meetings were conducted to 18 villages of six wards in the district.

A ten days training to selected CBAHWs on basics of proper caring, vaccination and treatment of livestock, business management and income generating activities was conducted and helped very much in improving animal health services system, because

trainees work as paraprofessionals. Further more results shows that establishment of surveillance system was not of success because to the time being CBAHWs depend on district council transport for outreach services but again availability of vaccination and veterinary kits is a problem. It was recommended for bicycles to be purchases with immediate effect and tool kits for CBAHWs to be procured too.

5.2 Evaluation

The project will be evaluated at two levels-the middle (mid-term evaluation) and at the end of implementation (terminal evaluation) by the evaluation team that will be formed by the management. The evaluation team will be responsible to assess the project results in relation to the problem of livestock and how the community has benefited due to the implementation of the project. They will also measure the impact of the project after its termination. An evaluation studies the outcome of a project (changes in income, housing quality, benefits distribution, cost-effectiveness, etc.) with the aim of designing of future projects. Table 18 is an evaluation worksheet of this project.

Table 18: Project Evaluation Worksheet

Objectives to be accomplished	Information needed	Sources	Techniques/Methods	Instruments
1. Explore whether community awareness meetings were conducted to impart them with the proper livestock keeping practices	-Members knowledge on proper livestock keeping. -Number of awareness meetings conducted.	- Community Members to be interviewed.	-Interviews -Focus Group Discussion (FGD)	-Interview checklist -FGD guidelines
2. Assess whether trained CBAHWs improved animal health services system to compliment efforts of professional AHWs	- Number of animals attended - The extent of reduced animal death incidents - Availability of vaccination and medicines - performance in surveillance system	-Project records -Site visit -implementation reports	-Documentation -Observation	-Reviewing checklist -Observation guideline
3.Explore whether improved livestock keeping system improved animal productivity	-Number of animals kept per grazing area. - Current animal husbandry system -Improved livestock breeds	-knowledge by pastoralists. -Village leaders -CBO and District reports	-Interviews, -Review of reports, -Review the records on animal productivity -Observation	-Interview checklist -Observation guideline -Reviewing framework
4.Explore whether improved livestock keeping system improved peoples livelihood.	- Market for livestock products -livestock keepers income	- Community lifestyle	- Interviews - Focus group discussion -Observation	-Interview checklist - Focus group discussion guidelines -observation guideline

The Table Format Source: Gajanayake (1993)

5.2.1 Evaluation Methods

Three methods will be used in evaluation exercise;

i. Interviews

This method was useful in soliciting information from people affected by the project in one way or another. It helped to harmonize opinions of livestock keepers, government leaders and extension staff. Also CHAWAHA and other NGOs like FARM Africa, VET Aid were interviewed on whether or not the project had been beneficial to Hanang district.

ii. Observation

The evaluation team carried out observation in the field to assess the actual things done by the project or through the project, number of cattle per grazing area, vaccination and treatment practices, and Livestock products before and after the project is the things which were observed.

In general term, the type of data expected to be collected include; increase of livestock keepers' income, change of livestock keeping practices, delivery of animal health services and the impact of capacity building training to community based animal health workers.

iii. Documentary review

This focused on monthly, quarterly and annual reports of the project implementation. These gave an overview of the situation of resources, challenges and implementation lags, and the corrective measures taken.

5.3 Analysis and presentation of results

The results were presented in a simplest way in a form of tables and figures. Descriptive statistic analysis was used as a technique of data analysis. However, the evaluation results were disseminated to stakeholders by flipcharts and handouts.

5.4 Conclusion

Participatory monitoring and evaluation are very important in leading the project activities towards achieving objectives. It helps the community to do the right things. Participatory monitoring and evaluation normally helps to bring about efficiency and effectiveness because it allows the community address the key issues relating to monitoring to ensure sustainability of the project.

5.5 Sustainability

Sustainability refers to the continuing ability of a project to meet the needs of its community (Bracht *et al.*, 1994), and embraces the concept of doing/ continuing the project beyond the time of donor agency involvement (Brinkerhoff and Goldsmith, 1992.

The sustainability of this project is based on the participation of community/ livestock keepers and stakeholders. Involvement of both stakeholders and community members in all stages of the project cycle i.e. identification, planning, implementation, monitoring and evaluation, ensures how sustainable the project will be, after the phasing out of the project. Community and stakeholders contribution in the planning

and implementation of the project is a good indication of the project sustainability. Endasaki, Masakta, Basutu Ziwani, Basodesh, Measqaron and Katesh wards in Hanang District and all the stake holders are involved in the project at all stages and are contributing in the implementation process due to awareness created by CHAWAHA.

5.5.1 Laying the Groundwork for Sustainability

CHAWAHA has been working toward building the sustainability of its member associations for quite long time. Much of this experience was gained through projects funded by International agencies, through the Matching Grant and the Transition Projects.

5.5.2 Strengthening Organizational Capacity for Sustainability

CHAWAHA provides technical support and training to its member associations as they strive to become more sustainable. These types of technical support include developing systems for cost-tracking, allocating resources to support information systems, livestock care, vaccination and assisting in sustainability planning.

5.5.3 Building Project Sustainability

Member associations have also been addressing sustainability from another angle: that of project sustainability. Several projects have built-in components to ensure the continuity of activities once funding for the project ends. Invariably, this involves training of community organizers who carry out the activities or partnering with other

organizations and government agencies that can maintain the project's activities in the future.

5.5.4 Participatory livestock development projects

This project aim at building self-sustaining grassroots livestock organizations by promoting groups of the livestock keepers and rural poor by influencing service delivery agencies to direct more of their resources through these organizations to the livestock keepers and the poor. Experience has shown that this institution/ organizations building process normally take time. It involves the introduction of a participatory learning process that gradually teaches the rural poor organizational, group problem-solving and leadership skills which they did not have before. Livestock health service was not common provided by the livestock keeper's organizations.CHAWAHA obviously plays an essential role in initiating and empowering this learning process in its initial phases. Yet it is equally critical to recognize when livestock keepers groups have reached a point of self-sustainability and no longer require special assistance from the project.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

This chapter summarizes key issues raised in this report. It focuses on key questions such as what the project intended to attain and what actually been achieved, what can be done to improve the situation on the current project or other projects operating under similar conditions. These questions are addressed under two sub headings, conclusions and recommendations.

6.1 Conclusion

6.1.1 Summary of Findings

The main findings are summarized as follows;

The research found that there are very few livestock keepers accessible to Livestock medicine, live stock vaccination as well as extension services, and that was explained as the major sources of livestock deaths and barrier toward livestock sector development in the Hanang District.

The major reasons that were given includes, distance to veterinary shops and capacity to buy vaccines and medicines. Many pastoralists claimed that many veterinary shops are located at town centre where is very far from villages, as well as price of medicine is unaffordable to them.

But also knowledge on the important of vaccination and treatment of livestock among livestock keepers was noticed by the researcher to be a reason. Most people of this

area are keeping their animals in a tradition way, they see vaccination and medication to animals some thing luxury and so they don't give priority. In addition to that, research revealed that number of livestock contributes much in difficulties to acquire basic needs for livestock. It is a prestige among communities to have a big number of livestock while they cannot afford to maintain them.

In discussion it was also discussed that professional extension workers refuse to report to their duty station in villages because of poor infrastructures and working conditions.

6.2 Implications and Recommendations

Livestock is a major resource and source of income for many communities in Tanzania. Many rural people depend in keeping livestock but they don't have enough knowledge for proper animal keeping which in some areas cause overgrazing. This became an evident after the government stopped to provide free animal services to communities where by many communities relaxed as if livestock do not belong to them, added number of animals while they can not pay for vaccination and treatment. The situation has become even worse because professional extension workers do not want to stay in rural areas because of poor infrastructures as well as poor working conditions. This project will try the best to eliminate the problem of animal health services in project area but also will do lobbying to government in to improve infrastructures to rural areas, in order to improve economic status of livestock keepers as well as nutrition status of these people which will encourage professional to work there as well as will expand animal product markets.

This research proposed the following actions in order to improve the livestock sector development in Hanang District.

6.2.1. Introducing Community Based Animal Health Worker

Livestock sector one of the prominent sector in the national economy, however there is less consideration and tender to the sector, as a result despite the fact that Tanzania has many livestock and among the leading in Africa, the sector contribute very little in the economy. Therefore, the research proposed to establish Community Based Animal Health Workers in the villages. CBAHW shall complement extension services, in the concerned authorities and have to be integrated into the local Government system. The idea of CBAHW should be spread amongst community-based organizations, which should be encouraged to invest directly into the training of group members as paraprofessionals.

6.2.2 Training on Modern Techniques of Livestock Keeping

Many rural people depend on keeping livestock but they don't have enough knowledge for proper livestock keeping which in other hand is a threat to sustainability of livestock activities in the area and can cause environmental degradation. Traditional methods of livestock keeping have proved in efficient and uneconomic with number of shortfalls, where as the modern techniques need knowledge for the livestock keepers to manage. Thus concerted efforts are required especially on training livestock keepers in better management of livestock including

vaccination and treatment of their animals. Training is also needed for economic and sustainable livestock keeping. The proposal is looking further to conduct these trainings in groups arranged based on the location of the livestock keepers with intention to cover the whole wards under the project.

6.2.3. Improve Extension Services

Likewise extension services are vital and need to be a priority issue in the livestock development programs so long as livestock is a major resource and source of income for many communities in Tanzania. The research found that, majority of the livestock keepers does not have access to extension services, the main reasons being lack of transport facilities for the extension workers and poor rural infrastructures. There is a need for government and NGOs to improve working conditions as well as rural infrastructure to attract professional extension workers to work in these areas but also there is a need to capacitate local people like CHAWAHA so that they can take charge of livestock in absence of professional extension workers. It is undisputed that the government and other development agencies should give special consideration to remote and low potential areas that are not attractive to the profit oriented private sector. The government should clearly define tasks division between the various actors in the delivery of animal health services bearing in mind that in remote and low potential areas some flexibility may be required in the privatization exercise.

6.2.4. Encourage Groups Formation

Many livestock keepers belongs their animal with their family and they have no common understanding on modern system of livestock keeping. As an individual, they cannot afford to buy such expensive medicine nor able to pay for the services. All these can be possible if they organize themselves in group and contribute to cost taking advantage of economy of scale.

It was the aim of this Community Economic Development (CED) project to build people's capacity on livestock keeping in the area. The project implemented this recommendation by training CBO members (CHAWAHA for this case) on providing treatment, vaccination and awareness creation on livestock keeping knowledge and skills to the pastoralists' community.