

**A PERFORMANCE AUDIT REPORT ON THE
HYGIENE CONTROL IN MEAT
PRODUCTION PROCESS**

THE UNITED REPUBLIC OF TANZANIA

National Audit Office

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ACRONYMS AND ABBREVIATIONS

CC	-	City Council
D by D	-	Decentralization by Devolution
GN	-	Government Notice
LGAs	-	Local Government Authorities
LSDS	-	Livestock Development Strategy
M&E	-	Monitoring and Evaluation
MC	-	Municipal Council
MALF	-	Ministry of Agriculture, Livestock and Fisheries
MoHCDGEC	-	Ministry of Health, Community Development, Gender, Elderly and Children
MTEF	-	Medium Term Expenditure Frame Work
PO RALG	-	President's Office - Regional Administration and Local Government
RAS	-	Regional Administrative Secretary
SAAFI	-	Sumbawanga Agricultural and Animal Feeds Industries (SAAFI) -Meat processing
SUA	-	Sokoine University of Agriculture
TFDA	-	Tanzania Food and Drugs Authority
TFDC	-	Tanzania Food Drugs and Cosmetics Act
TMB	-	Tanzania Meat Board
WHO	-	World Health Organization

PREFACE

The Public Audit Act No. 11 of 2008, Section 28 authorizes the Controller and Auditor General to carry out Performance Audit (Value-for-Money Audit) for the purposes of establishing the economy, efficiency and effectiveness of any expenditure or use of resources in the Ministry Department and Agency (MDA), Local Government Authorities (LGAs) and Public Authorities and other Bodies which involves enquiring, examining, investigating and reporting, as deemed necessary under the circumstances.

I have the honour to submit to His Excellency the President of the United Republic of Tanzania, Dr. John Pombe Joseph Magufuli and through him to Parliament the Performance Audit Report on the Management of Hygiene Control Mechanism in Meat Production Process.

The report contains findings of the audit, conclusions and recommendations that have focused mainly on hygiene practices in slaughter facilities as well as in slaughtering process. The audit covered adherence to hygiene practices; inspection activities involved in meat production; and monitoring and evaluation of hygiene practices by President's Office - Regional Administration and Local Government (PO RALG); Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC); and Ministry of Agriculture Livestock and Fisheries (MALF).

The Management of Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office - Regional Administration and Local Government; and Ministry of Health, Community Development, Gender, Elderly and Children were given the opportunity to scrutinize the factual contents of the report and come up with comments on it. I wish to acknowledge the audited entities for the very useful and constructive discussions we had about the audit.

My office intends to carry out a follow-up audit at an appropriate time regarding actions taken by the audited entities in relation to the recommendations of this report. In completion of the assignment, the office subjected the report to the critical reviews of Dr. Hezron Nonga (SUA) and Dr Jonas Melewas (Retired Deputy Permanent Secretary at

the Ministry of Livestock Development and Fisheries Development) who came up with useful inputs on improving the output of this report.

This report has been prepared by Mr. January K. Kinunda, Ms. Asnath Mugassa and Ms. Yuster Salala under the supervision and guidance of Mr. George C. Haule - Assistant Auditor General and Ms. Wendy W. Massoy - Deputy Auditor General. I would like to thank my staff for their assistance in the preparation of this report. My thanks should also be extended to the audited entities for their fruitful interaction with my office.

A handwritten signature in black ink, appearing to read 'Mussa Juma Assad', with a long horizontal line extending to the right.

Prof. Mussa Juma Assad
Controller and Auditor General
United Republic of Tanzania
March, 2016

EXECUTIVE SUMMARY

Background to the audit

It has been reported that approximately 80 percent of the slaughter facilities are not operating in the required hygienic condition and they don't have infrastructures that allow inspection of animals to be carried out effectively. Thus, there is high risk of supplying unsafe meat to the public¹. Presence of slaughter facilities operating in unhygienic conditions has both health and economic effects. Research conducted in Morogoro and Tanga regions indicates that meat produced from slaughter facilities poses a risk of transmission of various diseases like respiratory infections and diarrheal (Mkupasi et al., 2012).

The Government through the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC), are obliged to ensure safe and wholesome meat is delivered to domestic and foreign meat consumers.

The audit specifically focused on the extent to which meat production is carried out in hygienic conditions, efficiency and effectiveness of inspection activities of the whole process of meat production and transportation; and monitoring and evaluation of hygiene in meat production process conducted by ministries. Apart from three ministries mentioned above, data were also collected from Tanzania Food and Drugs Authority (TFDA) and sampled seven Local Government Authorities². This audit covers the financial year 2010/11 - 2014/15. The following is the summary of major findings, conclusions and recommendation arising from this performance audit.

¹ <http://www.mwananchi.co.tz/habari/Kitaifa/Nyama-hatari-yauzwa-nchini/-/1597296/2066152/-/145stot/-/index.html>

² Ilala, Kinondoni, Dodoma, Sumbawanga and Moshi Municipalities; and Mbeya and Mwanza Cities

Main findings

75 percent of the visited Slaughter Facilities were not adequately maintained in Hygienic Conditions

The audit team found that 75 percent of the visited slaughter facilities had limited services such as adequate hand and foot washing facilities, sewage and drainage facilities in place, slaughter floor with sufficient rail hangers and hooks, water supply adequate in volume and pressure, clean and adequate toilets and lavatories as well as clear working environment. This was caused by weak enforcement of existing laws and regulations, inadequate capacity of the slaughter facilities, inadequate awareness of laws and regulation concerning meat production and ineffectiveness of delegated TFDA'S power to LGAs.

Unhygienic practices in the slaughter facilities

The audit team found that 75 percent of the visited slaughter facilities slaughtering were done without stunning, in dirty areas, using unhygienic tools or equipment, without use of protective gears. Equally, medical check-up for staff working at the slaughter facility were not done regularly. Likewise, tools used in meat production process like slaughtering knife, skinning knife, axe, machet (Panga) were not owned and controlled by the owners of the facilities, it become difficult for health and meat inspectors to make proper check up of hygienic conditions of tools; and worse of all there was no hot water or disinfectant to be used in sterilization of tools.

Unhygienic Transportation of Meat within and from the Slaughter Facility

The audit team found that meat transportation was not carried out in clean and safe condition for 67 percent of the visited slaughter facilities. There were uses of dirty/rusty and unapproved meat carriers, movement or transportation of meat within the slaughter facilities were done unhygienically as there were no tools like trays to facilitate hygienic carrying of meat from one point to another.

Weak/Ineffective Inspection of Slaughter Facilities

The audit team found that there were unregistered slaughter facilities operating without being maintained in hygienic standards. This was caused by the presence of many actors entitled to make registration, inadequate inspections conducted by MALF, TFDA and TMB and weak enforcement of existing laws and regulations.

Inspection of Meat and Animals was not done efficiently

The audit team found that meat inspection was not done thoroughly, post mortem inspection was not conducted sufficiently and animals did not rest before being slaughtered. In addition, meat inspection results were not verified and at the same time there were parts of meat from different animals mixed together. The team found that higher workload of meat inspectors, inadequate skills of meat inspectors, poor structure and inadequate infrastructures of the slaughter facilities were the main causes for the inefficiencies.

Inadequate Monitoring and Evaluation of hygiene of meat production process by Ministries and Regional Administrative Secretary (RAS)

The analysis of their plans indicated that not all ministries' plans address the hygiene issues. Unlike MoHCDGEC and MALF, PO RALG plans did not include matters related to hygiene of meat production. Their plans mainly focused on evaluation of other animal products like performance of animal skin. MALF and MoHCDGEC have included the hygiene issue in their plans but were not adequately implemented although touching the interest of public health.

This was caused by lack of defined Key Performance Indicators for Monitoring Ministries' performance and institutions under their supervision such as TFDA, LGAs and Zonal Veterinary Centre (ZVC), Ineffective coordination between the PO RALG and Sector Ministries (MALF & PO RALG); Ministries did not evaluate the effectiveness of Hygiene Control Mechanisms. Similarly, reports from LGAs did not address unhygienic practices in Meat Production Process.

Recommendations issued by TFDA were not adequately implemented

The audit team found that there was inadequate implementation of TFDA's recommendations which was influenced by interference with the directives from various actors and inadequate follow up and enforcement of the TFDA's recommendations by MALF and PO RALG.

Conclusion

The general conclusion of this audit is that there is no assurance that, the meat delivered to the public in some of the visited slaughter facilities is safe for human consumption. This is because the hygiene control mechanisms are not effectively and efficiently managed by the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC). In addition, meat production is carried out in unsatisfactory hygienic conditions, inspection activities are not carried out in efficient and effective way and Monitoring and evaluation of Hygiene Control Mechanism is not adequately done.

Recommendation

Ministry of Agriculture, Livestock and Fisheries should:

1. Develop slaughter facility registration checklist with conditions that do not give room for registration of unqualified slaughter facilities;
2. Develop effective mechanism for enforcing the adherence of registration checklist during and after registration;
3. Develop System for ensuring and facilitating effective meat inspection activities; and
4. Establish performance measurement framework for hygiene practices in meat production process in the country.

The President's Office - Regional Administration and Local Government should:

1. Strengthen mechanism for enforcing owners of slaughter facilities to construct slaughter facilities that comply to standards and regularly maintain them in good hygiene condition;
2. Develop mechanism for operating public owner slaughter facilities that will enable LGAs to perform its supervisory and regulatory roles effectively;
3. Ensure that LGAs conduct daily inspection of hygiene condition of slaughter facilities and report the inspection to all levels of administration i.e. National, Regional and Council;
4. Ensure availability of qualified staff in LGAs to handle the whole process of meat production in slaughter facilities and ensure that staffs are equitably allocated based on capacity of slaughter facilities;
5. Improve reports and reporting of hygiene practices in meat production process and ensure that Regional Secretariats submit performance reports of their Councils on issues regarding hygiene of slaughter facilities and shared the reports with MoHCDGEC and MALF.

Ministry of Health, Community Development, Gender, Elderly and Children should:

1. Develop Food Safety Policy for harmonizing and streamlining the roles of different actors (MALF and PO RALG MoHCDGEC) in managing hygiene of meat production;
2. Establish coordinating mechanism that will facilitate proper implementation of TFDAs activities;
3. Establish mechanism that will enable regular slaughter facilities inspection and ensure compliance with laws, regulations and standards of hygiene in meat production processes; and
4. Establish performance measurement framework of hygiene practices in meat production process.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Audit

Tanzania's meat production industry is dominated by traditional pastoralist and farmers, who own over 90 percent of all livestock³. Common sources of meat in this country include cattle, sheep, goats, poultry, pigs, game and non-conventional animals. Cattle produces most of the meat contributing to 53 percent of total meat production whereas sheep and goats contribute to about 22 percent and remaining is from pigs, poultry and non - conventional animals. Annual meat production during the last five years (2010/11 -2014/15) has increased by 19 percent from 503,496 tonnes to 597,757 tonnes⁴. Meat produced in the country is mainly for the domestic market although part of the annual off-take of cattle, sheep and goats are exported mainly to neighboring and the Middle East countries⁵.

The demand for meat in the country is steadily increasing as population increases, incomes rise and cities swell people diversify their diets to include a variety of meat. However we are also experiencing increasing incidence of diseases transmitted from animals to humans. The case in mind was the outbreak of Rift Valley Fever (RVF) disease following the El-nino rains in 2007/08 where a number of human lives were lost through eating unprocessed meat.

The Government through the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC), are obliged to ensure safe meat is delivered to the citizens. To ensure delivery of safe meat, the government has established laws and regulations to control hygiene in meat production processes in the country.

Despite the government's efforts, the hygiene condition in meat production process has remained unsatisfactory. Tanzania Food and Drugs Authority and the media have reported that approximately 80 percent of the slaughter facilities are not operating in the required hygienic condition and they don't have infrastructures that allow

³ *Southern Agricultural Growth Corridor of Tanzania- Investment Partnership Program, 2012*

⁴ *Analyses of budget speech of the Ministry of Agriculture, Livestock and Fisheries, 2015*

⁵ *Livestock Sector Development Strategy, 2010*

inspection of animals to be carried out effectively. Thus, there is high risk of supplying unsafe meat to the public⁶.

Presence of slaughter facilities operating in unhygienic conditions has both health and economic effects. Research conducted in Morogoro and Tanga regions indicates that meat produced from slaughter facilities poses a risk of transmission of various diseases like respiratory infections and diarrheal (Mkupasi et al., 2012). However, the WHO report of 2012 has ranked high respiratory infections which kill 34.9 thousands of people (8.7 percent) and diarrheal diseases which kill 21 thousands of people (5.2 percent) in 2nd and 3rd position respectively in the list of the top most ten killer diseases in Tanzania. Among other factors, these diseases can be associated with eating unsafe meat and pollution from waste generated from slaughtering process.

Due to significant economic and public health risks to the citizens, the management of National Audit Office decided to conduct a Performance Audit focusing on hygiene control in meat production process so as to identify and recommend areas for further improvement.

1.2 Design of the Audit

1.2.1 Audit Objective

The main objective of the audit was to assess whether the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) have efficient and effective hygiene practices and control mechanism in meat production process so as to ensure safe and wholesome meat is delivered to the public.

The specific objectives were to determine:

- i. the extent to which the meat production activities are conducted in hygienic condition in order to ensure delivery of safe meat to the public;
- ii. whether Ministry of Agriculture, Livestock and Fisheries (MALF), Tanzania Food and Drugs Authority (TFDA) and Local

⁶ <http://www.mwananchi.co.tz/habari/Kitaifa/Nyama-hatari-yauzwa-nchini/-/1597296/2066152/-/145stot/-/index.html>

Government Authorities (LGAs) conduct inspection activities of meat production process in effective and efficient manner; and

- iii. the extent of monitoring and evaluation of the existing hygiene control systems in meat production process done by Ministries (MALF, PO RALG and MoHCDGEC).

1.2.2 Assessment Criteria

Assessment criteria were extracted from the Public Health Act No.1 of 2009 and its Regulations, The Animal Diseases Act No. 17 of 2003 and its Regulations, The Tanzania Food Drugs and Cosmetics Act No.1of 2003 and its Regulations, the Food Hygiene Regulations and Ministries Strategic Plans:

Adherence to Hygienic Practices at Slaughter Facility and Slaughtering Process

Meat production process is required to be carried out in premises of suitable design, layout and constructed in a way that facilitate easy maintenance, cleanness and disease detection during ante mortem and post-mortem inspection. The facilities should have cleaned environment and equipment to be cleaned and sanitized prior to use so as to prevent contamination of food (Tanzania Food and Drug Cosmetic Regulation (Food Hygiene), 2006 Regulation 8(1),13(1) (c) and 14(1)and the Animal Diseases Act No. 17of 2003 Section 53 (1)). Also the Environment Management Act No.20 of 2004 Section 138 requires the Minister responsible for environment in collaboration with Minister responsible for livestock to ensure proper disposal of veterinary wastes arising from slaughter facilities.

Inspections Activities in Meat Production Process and its Transportation

- Through inspections, MALF, MoHCDGEC (TFDA) are required to ensure that no person use any premises for slaughter of animals or cause or permit any animal to be slaughtered with intention to supply, sell, offer or expose for sale of meat for human consumption, unless that premise is registered. (*The Public Health Act of 2009 section 141, TFDC Act sec 41, 2003*);

- The *Food Inspection Guidelines, 2009*, requires TFDA to categorize all slaughter facilities according to their risks and prioritize its inspections based on those risk categories;
- According to *Regulation 5 of Animal Diseases Regulation of 2007*, Local Government Authorities (LGAs) are required to ensure that all premises registered for meat production are maintained and adhere to the prescribed public health standards throughout the duration of their registration;
- The Animal Welfare Act No 19 of 2008 Section 29(1) provides for humane slaughtering of animals. Section 31 of the same Act discourages the slaughtering of pregnant animals;
- The Veterinary Act No.16 of 2003 requires for registration of veterinarians as well as enrolment of Paraprofessional and enlistment of Paraprofessional Assistants. It also regulates their functions;
- The Livestock Identification, Registration and Traceability Act No. 12 of 2010 Chapter 184 provides for controls of animal movements for trace-backs and theft control purpose;
- The Occupational Health and Safety Act No. 5 of 2003 Part IV, section 43 (1) provides for safe access and safe working place while Part V of the same Act provides for health and welfare of workers at a place of work;
- In addition LGAs, through Meat Inspectors are required to perform ante and post mortem examination of all animals to be slaughtered for human consumption and ensure that the slaughter facility or house is fit for slaughtering of animals and submit reports to all stakeholders. The Inspectors are also required to inspect any meat carrier or container, to test the adherence of hygiene practices and ensure that carrier owners have movement permit issued by In-charge of slaughter facility (*Regulation 5 of Veterinary Regulation of 2007/2011 and Tanzania Food and Drug Cosmetic Regulation (Meat Transportation), (2006 Regulation 6&8)*);and

- According to *Section 5(2) of TFDC Act No.1 of 2003*, TFDC is required to maintain a system of consultation and cooperation with the Directorate of Veterinary Services in the Ministry responsible for Livestock Development through sharing of inspections reports.

Monitoring and Evaluation of Control Mechanism in Meat Production Process

- The *Livestock Sector Development Strategy of 2010* requires MALF to establish mechanism for enforcing the implementation of Animal Diseases Act No.17 of 2003 and its Regulations of 2007 through facilitating and monitoring meat hygiene to ensure delivery of safe meat;
- Based on the *Local Government Act (Urban Authorities) No.8 of 1982 Section 55(f)*, PO RALG is responsible for monitoring and inspecting the performance of LGAs in ensuring safe meat is delivered to the public by providing, maintaining, supervising and controlling public and private slaughter- houses, and all such matters and things as may be necessary for the convenient use of such public or private slaughter houses;
- According to the *FAO Meat Industry Manual of 2004*, MALF and MoHCDGEC are required to establish a risk profile of hygienic practices and use the information to guide for further corrective actions;
- MoHCDGEC is required to provide food quality services, meat being one of them and supervise the Tanzania Food Drugs and Authority (Roles of the MoHCDGEC).

In order to address the set audit objectives, more specific audit questions and sub - questions are provided in ***Appendix Four***

1.3 Audit Scope

The main audited entities were the Ministry of Livestock and Fisheries (MALF), President's Office - Regional Administration and Local Government (PO RALG) and the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC). These

entities are responsible for ensuring safe meat is delivered to the society by facilitating and enforcing the hygienic condition of meat production activities and the slaughter facilities. Apart from the three ministries mentioned above, data were also collected from Tanzania Food and Drugs Authority (TFDA) and Local Government Authorities since they are responsible for inspection activities in meat production process.

The audit covered the extent to which meat production is carried out in hygienic conditions, inspection activities in meat production and transportation chain. Monitoring and evaluation activities of hygiene control mechanisms in meat production process conducted by ministries and LGAs were also covered.

The audit covered five fiscal years from 2010/11 - 2014/15 so as to realize the adequacy and improvements made as a result of recommendations given when inspections and monitoring of meat production process were carried-out with an intention of addressing underlying problems of unhygienic conditions in meat production process.

The selected LGAs were those with availability of two main types of slaughter facilities i.e. slaughter houses and abattoirs located in urban areas since they slaughter about 70 percent of animals, thus pose a high risk of poor hygiene management while they supply meat to the large population. The kind of meat produced in the selected slaughter facilities were cattle, chicken, goats and sheep.

1.4 Methods for Data Collection

Document reviews, interviews and physical observation in the slaughter facilities were the main methods used in this audit.

Document Reviews

Documents that fell between 2010/11 to 2014/15 were reviewed to obtain the overall performance of the Ministries in managing hygiene practices of meat production process and for clarification of the information given during the interviews. Reviewed documents from the Ministries and LGAs were: monitoring and evaluation reports, annual performance report, planning documents, registration and

inspection checklist and inspection reports. More details on the documents reviewed can be seen in *Appendix Five*.

Interviews

Interviews were conducted with responsible officials both at the managerial and operational levels in the meat production process in order to get a comprehensive picture from both. Information regarding the hygienic practices in slaughtering, meat transportation, meat inspections and monitoring and evaluation of service delivered in livestock sectors were obtained. They were also used to confirm the information obtained from the documents reviewed and for providing more explanation where information was missing in the reviewed documents.

Officials involved in the interviews were purposely selected and included Directors and Assistant Directors, Meat Inspectors, Principal Livestock Officer, Health Officers, Registrar, Deputy Permanent Secretary, Owners of the slaughter facilities, Veterinary Officers and Agricultural Officers. More details on the officials interviewed can be seen in *Appendix Five*.

Physical Observations

Physical observation was done on the selected samples of slaughter facilities located in different LGAs so as to observe how hygiene is maintained during the meat production process.

Seven Local Government Authorities namely Ilala, Kinondoni, Dodoma, Sumbawanga and Moshi Municipalities; Mbeya and Mwanza Cities were sampled based on the availability of slaughter house and abattoir, geographical representation and number of animals slaughtered. Also two (Lake and Southern Highland) out of five TFDA zonal offices were covered; and three (Central, Lake and Southern west) out of eight Veterinary Zonal Offices were visited to obtain information on inspection activities.

Twelve (12) slaughter facilities (abattoirs and slaughter houses) from the sampled LGAs were covered in order to get a real situation of hygienic practices in meat production process. Slaughter facilities

which slaughter large number of animals, and numbers of animals slaughtered were taken as selection criteria due to the associated risk, because in case of problems it can affect large numbers of people.

Table 1.1 present the sampled slaughter facilities in the selected LGAs.

Table 1.1: Sampled Slaughter Facilities in Selected LGAs

<i>Category of Slaughter Facility</i>	<i>Total Number of Slaughter Facility</i>	<i>Number of sampled Facility</i>	<i>Local Government Authority</i>	<i>Name of Slaughter Facility</i>
<i>Slaughter House</i>	85	9	<i>Ilala MC</i>	<i>Vingunguti</i>
				<i>Ukongu Madizini</i>
			<i>Mwanza CC</i>	<i>Nyakato</i>
			<i>Kinondoni MC</i>	<i>Lufaveso-Kimara</i>
			<i>Moshi MC</i>	<i>Moshi MC</i>
				<i>Kiborloni</i>
			<i>Mbeya MC</i>	<i>Ilemi</i>
				<i>Uyole</i>
<i>Sumbawanga MC</i>	<i>Sumbawanga MC</i>			
<i>Abattoir</i>	11	3	<i>Dodoma MC</i>	<i>Dodoma abattoir</i>
			<i>Sumbawanga MC</i>	<i>Saafi</i>
			<i>Kinondoni MC</i>	<i>Interchick</i>

1.5 Data Validation Process

The Ministry of Agriculture, Livestock and Fisheries (MALF) President's Office Regional Administration and Local Government and Ministry of Health, Community Development, Gender, Elderly and Children were given the opportunity to go through the draft report and comment on the figures and information being presented. The three Ministries confirmed on the accuracy of the figures used and information being presented in the report.

The information was crosschecked and discussed with experts in the field of Veterinary Services and Public Health to ensure validation of the information obtained.

1.6 Standards Used for the Audit

The audit was conducted in accordance with the International Standards of Supreme Audit Institutions (ISSAIs) issued by the International Organization of Supreme Audit Institutions (INTOSAI). Those standards require that the audit is planned and performed in order to obtain sufficient and appropriate evidence to provide a reasonable basis for findings and conclusions based on audit objective.

1.7 Structure of the Audit Report

The remaining part of the report covers the following

- Chapter Two presents the system, process and relationship among key stakeholders who are entitled to ensure delivery of safe meat to the Public;
- Chapter Three presents the audit findings based on the three specific objectives of this audit; and
- Chapter Four provides audit conclusions and Chapter Five outlines recommendations which can be implemented to improve the hygienic practices of meat production process.

CHAPTER TWO

MEAT PRODUCTION HYGIENE CONTROL SYSTEMS IN TANZANIA

2.1 Introduction

This chapter describes the hygiene control systems used in meat production in Tanzania. It covers governing legal framework, meat production processes description, key stakeholders and their roles, and hygiene control mechanisms in meat production process.

2.2 Governing Policies, Laws and Regulations

Below are the Policies, Laws and Regulations which govern the management of hygiene practices in meat production activities in Tanzania.

2.2.1 Policies

The following are different policies which help to ensure safe meat is delivered to the public.

The National Livestock Policy, December 2006

Its objective is to ensure that all stakeholders are collaborating in promoting processing, marketing and consumption of quality meat and meat products in order to meet nutritional requirements. It communicates the aim of Government to collaborate with other stakeholders' in encouraging and supporting investment and rehabilitation of livestock infrastructure and facilities in the country.

The National Health Policy, 2003

Its main objective is to reduce burden of diseases through facilitation and promotion of environmental health and sanitations and control of communicable diseases.

The Environment Management Policy, 1997

The Environmental Management Policy (EMP) of 1997 is important for the control of environmental pollution. It requires Environmental Impact Assessment study as mandatory to be carried prior to the commencement or financing of a project or undertaking.

2.2.2 Governing Legislations

There are various Laws which governed the delivery of safe meat to the public as shown on Table 2.1.

Table 2.1: Laws Governing Hygiene Practices in Meat Production Process

<i>No.</i>	<i>Legislations</i>	<i>Animal and Meat Hygiene Issued Covered</i>	<i>Responsible Entity(s)</i>
1.	<i>The Animal Diseases Act No.17 of 2003 and its regulation</i>	<i>covers power of meat inspectors; layout of slaughtering premises; animal and meat inspection so as to prevent transmission of animal diseases to human being</i>	<i>Ministry of Agriculture, Livestock and Fisheries; and President's Office Regional Administration and Local Government</i>
2.	<i>Tanzania Food, Drugs and Cosmetics Act No.1 of 2003 and its regulations</i>	<i>It cover registration process of slaughter facility and its requirement, transportation of meat, restriction on the use of premises for slaughtering of animals and sale of meat so as to create hygienic slaughter environment</i>	<i>Tanzania Food and Drugs Authority; and President's Office Regional Administration and Local Government.</i>
3.	<i>Public Health Act No.1 of 2009</i>	<i>It emphasizes on safeguarding and promoting the public health standards and implementation and enforcement of public health standards. Moreover, it covers handling and disposal of waste generated from slaughter facilities activities; records to be kept and the type of reports to be filed by the owner or occupier of slaughter facilities.</i>	<i>Ministry of Health, Community Development, Gender, Elderly and Children; and President's Office Regional Administration and Local Government</i>
4.	<i>The Meat Industry Act No.10 of 2006</i>	<i>Provide functions and power of Registrar of Tanzania Meat Board; and other stakeholders in meat industry. Also it has covered the registration of business of a livestock production, trader or livestock market operation.</i>	<i>Ministry of Agriculture, Livestock and Fisheries; and Tanzania Meat Board</i>

5.	<i>The Local Government (Urban Authorities) Act No.8.of 1982</i>	<i>Requires LGAs to provide, maintain, supervise and control public or private slaughter facilities, and all such matters and things as may be necessary for the convenient use of such public or private slaughter facilities, and to impose fees, rents, and tolls in respect of the use of public slaughter facilities by any person.</i>	<i>President's Office - Regional Administration and Local Government; and Local Government Authorities</i>
6	<i>The Animal Welfare Act No. 10 of 2008</i>	<i>Section 29(1) provides for humane slaughtering of animals. Section 31 discourages the slaughtering of pregnant animals</i>	<i>Ministry of Agriculture, Livestock and Fisheries</i>
7	<i>The Veterinary Act No.16 of 2003</i>	<i>Requires for registration veterinarians enrolment of Paraprofessional and enlistment of Paraprofessional Assistants. It also regulates their functions</i>	<i>Ministry of Agriculture, Livestock and Fisheries</i>
8	<i>The Environment Management Act No.20 of 2004</i>	<i>Section 138 requires the Minister responsible for environment in collaboration with other sector of minister responsible for livestock other authorities to ensure there is proper disposal of veterinary wastes arising from slaughter facilities.</i>	<i>Vice President Office, Ministry of Agriculture, Livestock and Fisheries and Local Government Authorities (LGAs)</i>
9	<i>The Occupational Health and Safety Act No. 5 of 2003</i>	<i>regulates health, safety and welfare of persons at work in factories and all other places of work in Tanzania</i>	<i>Ministry of work and labour and LGAs</i>

Source: Auditors' Analysis, 2016

2.2.3 Strategies for Control of Hygiene Practices in Meat Production

Livestock Sector Development Strategy, November 2010

The Livestock Sector Development Strategy (LSDS) is an operational tool for the National Livestock Policy (NLP) that spells out actionable interventions required to meet the livestock sector vision, mission and objectives in short, medium and long term. One of the interventions is to establish and strengthens production of quality, safe meat and meat products by improving slaughter facilities, promoting investments in processing facilities, and training in processing, quality and safety of meat and meat products.

2.2.4 Goals and Objectives

In line with the National Development Vision 2025, the overall goal of the Ministry of Agriculture, Livestock and Fisheries is to control livestock diseases, safeguarding of livestock health, protection of public health and promoting safe trade of livestock and livestock product.

In line with the National Development Vision 2025, the overall goal of the Ministry of Health is to strive to raise and improve the health status and life expectancy of the people of Tanzania by provision of preventive services and food quality services.

Also the main goal of the President's Office Regional Administration and Local Government (PO RALG) is to enable Local Government Authorities (LGAs) to provide quality services to the people within their jurisdiction.

2.3 Standard Meat Production Process

The process of meat production is not the same in all categories of slaughter facilities and kind of animals slaughtered. The process differs from one type of facilities to another. Despite of their differences there were common processes to be followed with regardless of where the slaughtering is taking place as showed in figure 2.1 and its detailed information in *Appendix Six*.

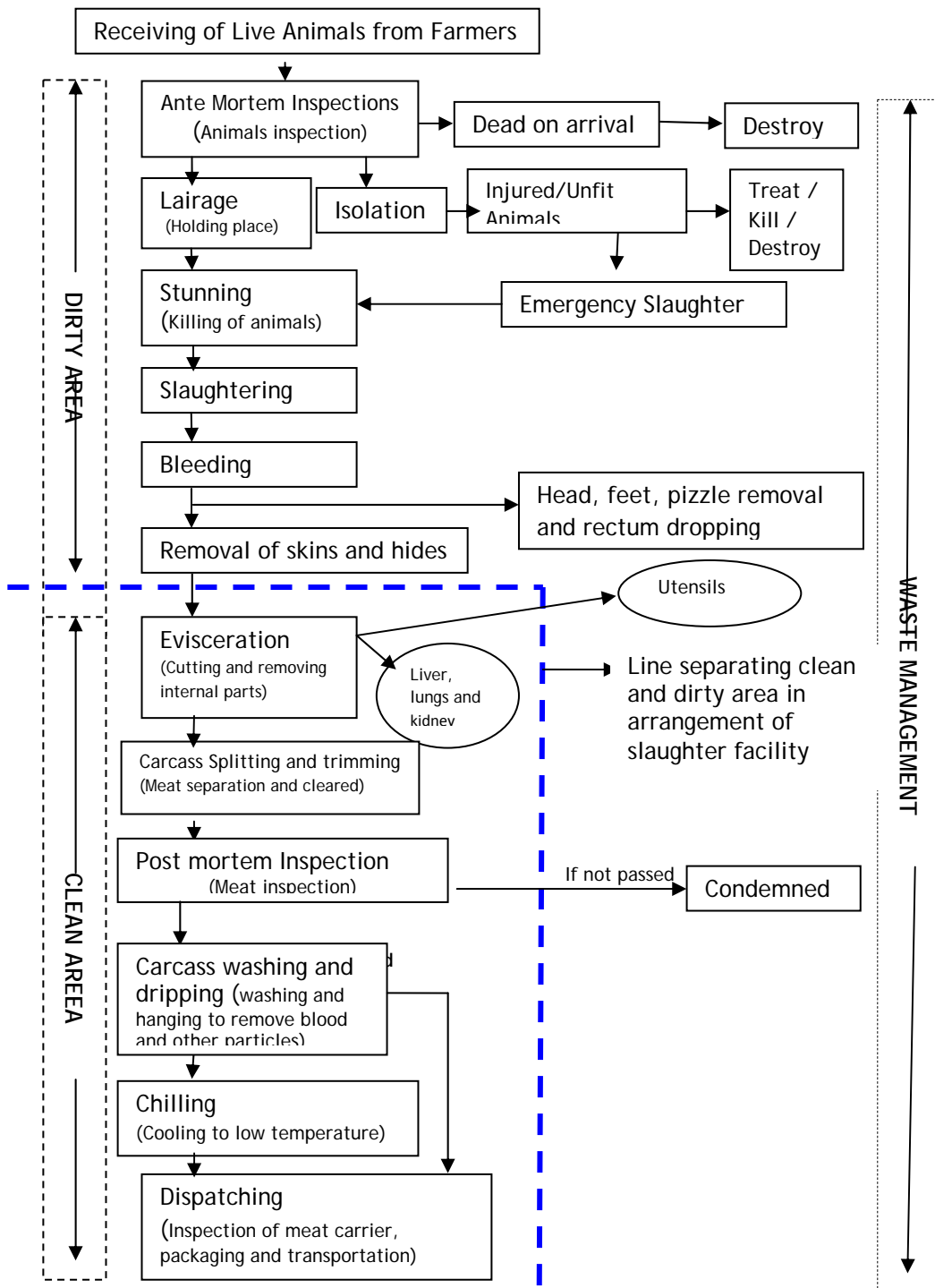


Figure 2.1: Meat Production Process in slaughter facility summarized by Audit Team from different sources⁷

⁷ FAO Animal Production and Health, Slaughterhouse Cleaning and Sanitation, 2011; slaughtering processing of Dodoma Abattoir; and Auditors' analysis, 2015)

2.4 Categories of Slaughter Facility

There were three categories of slaughter facilities found in the country, namely slaughter slabs, slaughter houses and abattoirs as explained below: -

Slaughter slabs are predominantly found in rural areas and in some farms, infrastructure in slaughter slabs were designed to be capable for facilitating slaughtering only. The infrastructure was designed for slaughtering few numbers of animals compared to other categories of slaughter facilities.

Slaughter houses have basic improved infrastructures capable for handling live animals, slaughtering large number of animals and capable of handling meat waiting for departure. Infrastructure in place is more complex than slaughter slab and is less complex than abattoir.

Abattoirs are highly advanced slaughter facilities with infrastructures capable of handling live animals, slaughtering large number of animals, meat processing and having cold facility. Infrastructure in place is more complex than slaughter slab and slaughter houses. Total numbers of each type of the slaughter facilities in the country are as shown in Table 2.2.

Table 2.2: Number of Slaughter Facilities per Types

SN	Type of Slaughter Facilities	Number of Facilities in the Country
1.	Slaughter Slabs	1094
2.	Slaughter Houses	85
3.	Abattoirs	11

Source: MALFD/TMB, 2016

Table 2.2 indicates that, there is a large number of slaughter slabs compared to the slaughter houses and abattoirs. This is because slaughter slabs are mostly found in rural areas where few numbers of animals are slaughtered while slaughter houses and abattoir are located in urban areas (town/municipal and city centre) where a large number of animals are slaughtered.

2.5 Roles and Responsibilities of Key Players and Stakeholders

2.5.1 Roles and Responsibility of Key Players

The main key players in controlling the hygiene during meat production include the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC).

Ministry of Agriculture, Livestock and Fisheries (MALF)

The MALFD plays part in different stages of meat processing from animal inspections, slaughtering process, and inspection of meat, slaughter facilities and meat carrier or van. The MALF is responsible for:-

- monitoring and controlling animal diseases from origin;
- providing regulations and guidelines used for meat inspections, slaughtering and design layout of slaughter facility;
- facilitating and monitoring of animal inspections, slaughtering activities, meat handling and transportation;
- Building and supporting the technical and professional capacity of local government authorities and the private sector in order to develop, manage, and regulate the livestock resources sustainably, including slaughter facilities;
- facilitating and monitoring meat hygiene (including meat, abattoir slaughter facilities and meat factories inspection); and
- inspecting and registering slaughter facility before its operation.

President's Office - Regional Administration and Local Government (PO RALG)

The PO RALG has to ensure safe meat is delivered to the society, the roles of the ministry cut across all stages of meat production process. Its functions involve:

- monitoring the performance of LGAs in controlling animal diseases from its origin;
- monitoring the performance of LGAs in conducting animal's inspections, in managing slaughtering hygiene practices activities, in meat inspections and in managing meat handling and transportation.

Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC)

The overall responsibility of the MoHCDGEC is to provide policies, strategies and legislation for Public Health legislation for the control of epidemics, infectious diseases and environmental health protection. Provide legislation for the control of quality of drugs and food under the Tanzania Drug, Food and Cosmetics Authority Act.

Specifically the MoHCDGEC is responsible for:-

- monitoring the performance of TFDA and LGAs in enforcing the hygiene practices at animal inspection area, enforcing the hygiene practices in slaughtering process and during meat inspections;
- providing regulations regarding slaughter facilities and meat hygiene;
- providing and regulating the inspection of slaughter and butchery facilities to determine whether or not they are suitable for the intended purposes;
- providing guidelines for the disposal, treatment or processing of waste matters, refuse and by-products resulting from the slaughtering of animals or birds in slaughter houses; and
- Supervising the performance of TFDA in inspecting the hygiene of slaughter facilities.

2.5.2 Roles and Responsibility of Other Stakeholders

Other main Stakeholders in this area of managing hygiene in meat production process include Local Government Authorities (LGAs), Tanzania Food and Drugs Authority (TFDA), Tanzania Meat Board and owners of slaughter facilities.

Local Government Authorities (LGAs)

LGAs facilitate livestock producers through provision of training and livestock services to the producers, conduct and manage inspection of animals, slaughtering activities and facilities, maintaining slaughter facilities infrastructure and environment, manage handling and transportation of meat.

Tanzania Food and Drugs Authority (TFDA)

TFDA enforces regulations concerning hygienic condition of slaughter facilities environment, handling and transportation of meat by conducting inspection. It is also involved in the registration of slaughter facilities.

Tanzania Meat Board (TMB)

Among the functions of the Meat Board are to ensure stakeholders' compliance with national or international meat and meat products standards in collaboration with other quality control institutions; and to register producers, processors and other dealers of meat and meat products for the purpose of their identification and involvement in promotion of the meat industry.

Owners of the Slaughter Facilities

The ownership of the slaughter facilities is by both public and private. They are responsible for ensuring that slaughter facilities are located, designed and constructed according to the design and layout that facilitate disease detection during ante mortem and postmortem inspections by an Inspector issued by MALFD with registration approval from TFDA and for abattoirs that comply with NEMC Environmental Impact Assessment (EIA). They have a role of managing and

implementing the hygiene and sanitary practices in the slaughter facilities. Table 2.3 below shows the ownership of slaughter facilities in selected LGA.

Table 2.3: Ownership of the Slaughter Facilities

Kind of Slaughter Facility	Total Number of Slaughter Facilities	Percentage Owned (%)	
		Public	Private
Abattoir	11	9	91
Slaughter House	85	82	18
Slaughter Slab	1094	0	100
Total Number of Slaughter Facilities	1190	98	2

Source: MALF and TMB Reports, 2016

Table 2.3 indicates that, almost 100 percent of the slaughter slabs were private owned since meat traders establish places for slaughtering their animals and Slaughter houses were mostly owned by LGAs in order to provide slaughtering services to the urban population. The details of the summarized roles of various key players and stakeholders in each stage of meat production process are indicated in **Appendix Five**.

2.6 Hygiene Control Mechanisms in Meat Production Process

Hygiene control in the meat production refers to prevention of contamination of the product which involves the whole process from the farm to table /fork. However, each function in the slaughter process has a fixed status in terms of “Clean” or “Dirty”. In choosing the premises, this important aspect must be taken into consideration. “Clean” and “Dirty” areas are separated by distance, physical barriers and in certain cases by time. It focuses on sanitation on facilities, location, layout and construction. It also focuses on tools, equipment and safety gears and hygiene of staff involved in the slaughtering process. It is also involved in the health of employees involved in meat handling and transportation, maintenance of the premises and general cleanness of the environment. Below are the key aspects of hygiene control mechanisms:

2.6.1 Regulations and Application of Sanctions

Central governments through the Ministry of Health, Community Development, Gender, Elderly and Children and the Ministry of Agriculture, Livestock and Fisheries (MoHCDGEC and MALF) have developed regulations governing the hygiene practice to guide in the implementation of Animal Disease Act, TFDA Act, and Public Health Act and their regulations. President's Office Regional Administration and Local Government (PO RALG), is required to enforce the implementation of these regulations and ensure that owners of the slaughter facilities comply with the required standards.

2.6.2 Inspections and Enforcement of Hygiene Practices

Inspection and enforcement plans provide a basis for assigning the priorities based on risk and allocate the available resources accordingly. A systematic risk-based approach is employed by allocating greater priority and time to assess the compliance to hygiene in meat production operations and facilities with significant risk to public health.

The Food Inspection Guideline, 2009, requires TFDC to categorize all slaughter facilities according to their risks and prioritize its inspections based on those risk categories. TFDA issued an Inspection Checklist for cattle Slaughter Houses (Including Sheep and Goats) Ref No F13/DFS/FRA/GL/002 in order to assist inspectors of slaughter houses premises recommend action to be taken for registration.

At TFDA, inspection is undertaken by the Directorate of Food Safety which has got three sections namely Food Inspections and Enforcement, Food Evaluations and Registration and Food Risk Analysis. There are Zone and Local Government Authority Coordinators (ZOLGAC) in five zones who report to Director General through the Director of Food Safety.

They are responsible for conducting routine, ad-hoc and risk-based inspections. Utilizing the Hazard Analysis and Critical Control Point (HACCP) principles have been used to manage food safety. It systematically identifies specific hazards as well as measures for their control in order to ensure the safety of foods.

LGAs through meat inspectors conduct daily inspection of animals, meat, slaughter facilities and meat carrying vans to ensure meat supplied to the market is not contaminated. The meat inspector should implement all regulatory requirements relating to ante- and post-mortem inspection and the transport of meat.

2.6.3 Reporting of Inspection Results by TFDA, LGAs and RAS

Meat has been viewed as a vehicle for a significant proportion of human food-borne diseases. The Government, consumers and other stakeholders are interested to know the outcome of meat inspection. Reporting is mandatory in order to ensure that there is monitoring and evaluation of planned activities.

TFDA guidelines require an Inspector to submit a report to his supervisor as soon as practically possible within 7 days of actual inspection in a prescribed format. Report of food control services shall be prepared in prescribed format which is submitted to the Authority in quarterly basis.

TFDA and LGAs are required to submit inspection reports on meat inspection to various stakeholders as summarized in Table 2.4.

Table 2.4: Summary of Reports requirement of TFDA and LGAs

<i>No</i>	<i>Entity</i>	<i>Type of Report</i>	<i>Consumer of the Report</i>
1	TFDA	Weekly, Quarterly and Annually	PO RALG, MoHCDGEC and MALF
2	LGAs	Monthly, Quarterly and Annually	RAS
3	RAS	Monthly, quarterly and Annually	TFDA, PO RALG, MoHCDGEC and MALF

2.6.4 Monitoring, Evaluation and Reporting on Hygiene Control Mechanisms

This part covers planning and budgeting as well as monitoring and evaluation of hygiene control in meat productions; monitoring of the performance of TFDAs and LGAs and reporting of monitoring results and Follow up of Recommendations.

Planning and Budgeting for Monitoring of Hygiene Control Mechanisms

The Ministry of Agriculture, Livestock and Fisheries Development, PO RALG and the Ministry of Health, Community Development, Gender, Elderly and Children are required to apply suitable methods of monitoring the performance of the regulatory institutions (TFDA and LGAs) to demonstrate their ability to carry out their responsibilities appropriately so that corrective measures can be taken. To do so MALF, MoHCDGEC and PO RALG have to plan and budget for the monitoring activities

Monitoring and Evaluation of the Hygiene Control Mechanisms

The Ministry of Agriculture, Livestock and Fisheries and Ministry of Health, Community Development, Gender, Elderly and Children are supposed to monitor the hygiene control mechanisms that involve checking the implementation of the regulations, guidelines and evaluating their effectiveness in addressing unhygienic condition in the meat production process. In addition, according to the FAO Meat Industry Manual of 2004, Ministries are required to establish a risk profile of hygienic practices and use the information to guide for monitoring and for further corrective actions.

Monitoring of the Performances of the TFDA and LGAs

In the implementation of their roles, MoHCDGEC and PO RALG are required to monitor the performances of TFDA and LGAs inspection activities and assess whether the inspection activities address the problem of unhygienic conditions in the meat production process.

Reporting of Monitoring Results and Follow up of Recommendations

To ensure effectiveness of the monitoring activities, (MALF, MoHCDGEC) are required to report the monitoring results to the relevant stakeholders such as PO RALG and make follow up of their recommendations. Also section 5(2) of TFDA Act of 2003, MoHCDGEC

through TFDA is required to maintain a system of consultation and cooperation with the Directorate of Veterinary Services in the Ministry responsible for Livestock Development through sharing of inspections reports.

Through District/ Municipal Livestock Officers, LGAs are required to produce, monthly, quarterly and annual reports containing information regarding hygiene of slaughter facilities such as cleanness, number of animals slaughtered, number of animals inspected, diseases detected and revenue collected. These reports are submitted to Zonal Veterinary Officer and Regional Advisor Livestock Officer who then submit to MALF and PO RALG. In addition, MALF was required to get the information from LGAs regarding the number of standard abattoirs and slaughter facilities in use through LGAs reports.

TFDA zonal office report weekly, quarterly and annually to TFDA who then report to the Ministry of Health, Community Development, Gender, Elderly and Children. These reports consist of numbers and kinds of inspection done, among other thing.

CHAPTER THREE

AUDIT FINDINGS

3.1 Introduction

This chapter presents findings of the performance of the Ministry of Agriculture, Livestock and Fisheries, Prime Minister's - Office Regional Administration and Local Government, and the Ministry of Health, Community Development, Gender, Elderly and Children in maintaining hygiene practices in slaughter facilities and in slaughtering process; effectiveness and efficiency of inspections activities; and monitoring and evaluation of hygiene control mechanisms of meat production process. The presentations of audit findings are linked to the audit questions which form part of the sub-headings in this chapter.

Audit Question 1: Are the meat production activities conducted in hygienic condition in order to ensure delivery of safe meat to the public?

3.2 Unsatisfactory Hygienic Condition and Operation in Meat Production Processes

Meat production process was observed to be carried out in unhygienic conditions due to the following weaknesses identified:

3.2.1 Slaughter Facilities⁸ were not adequately maintained in Hygienic Conditions

The audit team found that 75 percent of the twelve visited slaughter facilities were not maintained in the acceptable hygienic standards as required by the Animal Diseases (ante and post mortem inspection) Act No.17 of 2003; and TFDC (food hygiene and meat transport) Act No. 1 of 2003 . The regulation requires the slaughter facilities to have cleaner environment so as to prevent contamination of meat. All interviewees namely, MALF, PO RALG and MoHCDGEC confirmed that, the slaughter facilities in the country operated in an unacceptable and unhygienic condition especially slaughter houses and slabs.

⁸ Slaughter facilities consist of slaughter slab, slaughter house and abattoir

During physical observations the audit team found that slaughter facilities had limited required elements for maintaining hygiene such as adequate hands and feet washing facilities, sewage and drainage facilities in place, slaughter floor with sufficient rail hangers and hooks, adequate water supply (in terms of volume and pressure). There must also be clean and adequate toilets and lavatories. The environment of existing ones was not found to be clean.

The situation of the visited slaughter facilities with unsatisfactory hygienic condition is as indicated in Table 3.1.

Table 3.1: Percentage of the Visited Slaughter Facilities with unsatisfactory Hygienic Condition

LGA	No. Slaughter Facilities Visited	Hygienic Condition of Slaughter Facility		Percentage of Slaughter facilities with Unsatisfactory (%)
		Satisfactory	Unsatisfactory	
Mwanza CC	1	0	1	100
Ilala MC	2	0	2	100
Moshi MC	2	0	2	100
Mbeya CC	2	0	2	100
Kinondoni MC	2	1	1	50
Sumbawanga MC	2	1	1	50
Dodoma MC	1	1	0	0
Total	12	3	9	75

Source: Auditors' Site Observations and Analysis, 2015

Table 3.1 indicates that, in all visited LGAs that only slaughter facilities in Dodoma MC were maintained in hygiene conditions while in other visited LGAs the problem was noted to be higher by 50 - 100 percent.

Review of TFDA annual performance reports for the period of four years from 2010/11 to 2013/14 also indicated that 75 percent of slaughter facilities inspected did not meet the *required* hygienic standards.

The percentage of slaughter facilities noted to have unsatisfactory hygienic conditions by TFDA is as presented in Table 3.2.

Table 3.2: Situation of the Slaughter Facilities with unsatisfactory hygienic condition as reported by TFDA

<i>Financial Year</i>	<i>No. of Inspected Slaughter Facilities</i>	<i>Number of Slaughter Facilities in Unsatisfactory Condition</i>	<i>Percentage (%)</i>
2013/14	77	66	86
2012/13	223	149	67
2011/12	18	17	94
2010/11	62	53	85
<i>Total</i>	<i>380</i>	<i>285</i>	<i>75</i>

Source: TFDA's Annual Performance Reports from 2010/11- 2013/14

Table 3.2 indicates that in each year of inspection more than two-third of all inspected slaughter facilities were found to operate in unhygienic condition.

Equally, the audit team found the following: The audit noted the following defects:

- 8 out of 12 (equivalents to 67 percent) of the visited slaughter facilities namely Lufaveso, Vingunguti Ukonga, Ilemi, Moshi, Kiboroloni, Sumbawanga and Uyole did not comply with the required standard design and layout. They also lacked areas for feet and hands wash, meat handling, meat inspections and there were no separation of dirty and clean areas. Temporary meat handling areas and animal killing areas (stunning) were missing in those facilities;
- 6 out of 12 (equivalents to 50 percent) of the visited slaughter facilities namely Vingunguti, Lufaveso, Ilemi, Uyole, Nyakato and Kiboroloni didn't have adequate water supply to facilitate cleanness of the surrounding environment;
- 10 out of 12 (equivalents to 83 percent) of the visited slaughter facilities namely Lufaveso, Vingunguti, Ukonga, Uyole, Ilemi, Sumbawanga, Nyakato, Dodoma, Kiboroloni and Moshi didn't have proper management of waste generated from slaughtering process. Some waste were disposed without treatment close to the public areas posing risk of contamination;
- 8 out of 12 (equivalents to 67 percent) of the visited slaughter facilities namely Lufaveso, Vingunguti, Ukonga, Uyole, Ilemi, Sumbawanga, Kiboroloni and Moshi had no toilet facilities and

some of them were in bad conditions in a way that they produced foul smell and flies that could cause contamination of meat and affect health of the staff working in the slaughter facilities;

- 5 out of 12 (equivalents to 42 percent) of the visited slaughter facilities namely Lufaveso, Vingunguti, Ukonga, Nyakato and Kiboroloni had damaged and dirty floors that could cause meat contamination;
- 8 out of 12 (equivalents to 67 percent) of the visited slaughter facilities namely; Lufaveso, Vingunguti, Ukonga, Ilemi, Moshi, Kiboroloni, Sumbawanga and Uyole lacked sufficient rail, hangers and hooks which cause dressing, evisceration and carcass inspection to be done on the floor posing risk for contamination of meat. Also, hooks were not owned and cleaned by the owners of the facilities, therefore, it was difficult for the health officers to ensure all facilities used in the slaughter facilities were cleaned and maintained in hygienic condition; and
- 9 out of 12 (equivalents to 75 percent) of the - visited slaughter facilities namely Lufaveso, Vingunguti, Ukonga, Uyole, Sumbawanga, Ilemi, Nyakato, Kiboroloni and Moshi had no entrance control thus allowed free movement of people from anywhere within the facility such as toilets, dirty area, clean area, animal holding areas without washing their feet or hands.

Causes of Unhygienic Conditions in Slaughter Facilities

The following were the causes noted through the interviews held with officials from the ministries, TFDA and LGAs and the reviewed documents regarding the *unsatisfactory* performance of the slaughter facilities:

Weak Enforcement of Existing Laws and Regulations: It was revealed during interviews held with officials from the ministries⁹ that LGAs failed to enforce implementation of the laws and regulations for being both the owner and regulator of slaughter facilities. This has come

⁹ MALF and MoHCDGEC

after implementation of D by D policy where the inspectors were answerable to LGAs.

Equally, the audit team observed that there was meat trading activity being conducted in slaughter facilities that changed the primary objective of facility from slaughtering place to meat and other commodities market. This is contrary to the requirements of Section 3 of Meat Industry Act No.10 of 2006. The meat trading at slaughter facilities was due to poor entrance control that was prevailing in the slaughter facilities. For example, there were no identity cards for workers in the slaughter facilities that made it difficult for security officers in the slaughter facilities to recognize unauthorized people who are not required to enter into the facility.

This habit increased the risk of meat contamination which jeopardises the public health. Through the review of Ilala MC Inspection reports on slaughter facilities, the audit team noted that the tendency of allowing meat trading in the slaughter facilities has resulted into loss of revenues because that trade is unregistered and might lead into closure of some butchereries.

In addition, lack of entrance control, impaired the security of the staff, a case which was noted in Vingunguti where five staff were injured including Officer In-charge of the facility, Meat Inspector and Security Officers during the period of examination.

Inadequate Capacity of the Slaughter Facilities: Interviews held with Meat Inspectors indicated that the number of animals slaughtered in most facilities far exceed their installed slaughter capacities. This was expected as some of the slaughter facilities were constructed in early 1950's with estimated capacity for slaughtering the number of animals required to cover the population during that period. Due to increased human habitation and the increase demand for meat, the infrastructures in place could not accommodate the number of animals slaughtered at the same time supporting the hygiene conditions required for the management of cleanness of the slaughter facilities.

This case was noted in Vingunguti, Lufaveso, Kiborloni and Nyakato Slaughter facilities as shown in Table 3.3. As a result of increased demand for cattle being slaughtered people forced to slaughter all the animals without due regards to available infrastructures.

In addition, this was attributed by the fact that registrations issued by TFDA, TMB and MALF did not specify or set the maximum capacity of number of livestock to be slaughtered based on the size of the facility as one of the registration criteria.

Table 3.3: Comparison of the designed capacity of the slaughter facility and the current number of livestock slaughtered per day

No	Slaughter Facility	Designed Slaughter Capacity per day ¹⁰	Average no. of animals slaughtered per day	Deviation of no. of animals slaughtered
1	Vingunguti	50	466	416
2	Nyakato Mwanza	100	225	125
3	Lufaveso-Kimara Suka	60	150	90
4	Kiborloni Moshi	12	15	3
5	Sumbawanga	25	26	1
6	Ilemi Mbeya	35	28	-7
7	Uyole Mbeya	25	11	-14
8	Moshi MCC	50	28	-22
9	Ukongga Madizini	350	300	-50

Source: analysis of designed capacity of slaughter facility (2016)

Table 3.3 indicates that there were excessive number of animals slaughtered (over-capacity) than the designed capacity by 1 to 416. Similarly, the facilities were slaughtering fewer animals (under-capacity) than designed capacity of between 7 to 50 animals. The audit noted that, they said design capacities of some of slaughter facilities were exaggerated. For example, in Ukongga Madizini infrastructure in place did not support the workload for slaughtering 350 animals per day.

¹⁰ According to interviews with Incharge meat inspectors, 2015-2016

Layout and designed structures of slaughter facilities do not support hygienic condition: The audit team observed that 9 out of 12 slaughter facilities visited by the audit team were lacking basic infrastructures which support hygienic production of meat. For example, infrastructure for slaughtering, meat inspections, meat movement and handling, waste disposal and treatment were not well designed and constructed. As a result slaughtering is done on the floor, meat was improperly handled, no hand and feet washing facilities and the associated wastes were also improperly handled and disposed off.

No clear definition of the categories of the slaughter facilities: The audit team found that, key stakeholders in the meat industry were unaware of the various categories of the slaughter facilities. In addition, there were no clear conditions or demarcations for each slaughter facilities. Slaughter slabs were predominantly found in rural areas and in some farms which were privately and public owned. Dirty and clean areas were not separated and made it easier for the contamination of the carcass to be possible.

Slaughter houses need to have basic infrastructure for handling live animals and meat. However, findings revealed that most of the facilities lacked basic equipment for hanging carcasses and animals were slaughtered on the floor.

Audit team found out that, abattoir have the necessary facilities for stunning, skinning, evisceration, waste disposal, meat inspection, cold storage ;and there was clear separation of clean and dirty areas.

Inadequate Awareness of Laws and Regulation Concerning Meat Production:

During interviews with officials from PO RALG the audit team found that some of the stakeholders in meat industry such as owners of animals to be slaughtered, slaughter personnel, hides and skins dressers and meat transporters were not aware of the hygiene requirements for operating slaughter facilities. They mainly did not understand the hygiene of handling meat during slaughter and transportation. This puts consumers of meat from these facilities in danger in terms of health and their physical security.

Equally, the audit team found that, the Livestock Development Strategy of 2010 developed by MALFD was not adequately disseminated to LGAs thus creating a gap for its implementation. The other main reasons for the lack of good understanding of the health and safety conditions necessary for operating slaughter facilities include high turnover of staff involved in slaughtering, dressing and meat handling due to lack of experienced permanent staff who are employed by operators of slaughter facilities and poor training.

Ineffectiveness of delegated TFDA's power to LGAs: The audit team found that LGAs were not adequately implementing inspection activities delegated to them by TFDA because of conflict of interest for being both, the owner of some of the slaughter facilities and at same time the supervisor and regulator of such services. Section 5(1)(a) of TFDC Act No 1 of 2003 requires TFDA to regulate all matters relating to quality and safety of food. However, due to incapability of TFDA in terms of financial and human resources in undertaking its regulatory role, they decided to delegate some of their regulatory functions on areas of slaughter facilities since 2008 to LGAs. It was done through the Tanzania Food, Drugs and Cosmetics (Delegation of Powers and Function Order) 2006 and a new one of 2015.

This situation made the LGAs to perform the roles of a supervisor, regulator and owner of some of the slaughter facilities. The recommendations made by TFDA on the improvement of the slaughter facilities were not implemented by LGAs and therefore the activities remained unregulated and unsupervised.

3.2.2 Slaughtering activities were carried-out in unhygienic practices

Although TFDA Food Hygiene Regulation 12(a) requires operation of food premises to be conducted following compliance to hygienic procedures, this was not done in the case of slaughtering facilities as the audit team observed unhygienic practices in the slaughtering process. It was noted that 75 percent (9 out of 12) of the facilities slaughtered animals in an unhygienic condition which pose the greater risk of contamination jeopardizing the health of consumers (Photo 3.1)

The following are the weaknesses observed by the audit team during the audit:

Slaughtering is carried-out in dirty areas: The audit team observed that *skinning*, dressing and evisceration were done on the bare floors which were littered with blood from animals slaughtered and other wastes posing a great risk to contamination of meat as depicted on Photos 3.1 up to 3.3. This is because 75 percent of the visited slaughter facilities lacked separation of clean and dirty areas as presented in Section 3.2.1.



Photo 3.1: Showing Unhygienic Slaughtering, skinning, dressing and Evisceration done on dirty area photo taken at Lufaveso slaughter facility.

Moreover, it was also noted that 9 out of 12 (equivalents to 75percent) of the visited slaughter facilities did not have feet and hand washing areas and people moved freely from toilets and from other unknown places and went straight to slaughtering areas without dipping their feet or washing their hands using disinfectants. It was only in Dodoma Abattoir, SAAFI and Interchick where there were hand wash and feet baths at each entrance points shown in Photo 3.2.



Photo 3.2: Show foot wash basin at Dodoma Abattoir, 2015

The main reasons for lack of areas reserved for washing hands and feet were poor design of the infrastructure and ignorance on the importance of hand wash basin and foot bath.

Animals slaughtered without being stunned: The audit team observed that animals were being slaughtered without being stunned contrary to *Animal Welfare Act No 19 of 2006*. Section 29(1) of the Act require an animal should be slaughtered through a method which (a) involves instantaneous killing or (b) instantaneous rendering of an animal unconscious and ends in death without the recovery of consciousness. However, the team witnessed animals being slaughtered without supporting equipment, being forced down by tying ropes to the fore and hind legs of one side that were then firmly pulled from the other side.

This could cause injury to personnel working in the slaughter facility. Most of the slaughter facilities visited did not have stunning equipment. The main reasons for lack of stunning equipment include poor design of the slaughter infrastructure and the lack of law enforcement and awareness of the owners of slaughter facilities. Furthermore, the audit team observed animals being slaughtered in clear sight of other animals waiting to be slaughtered.

This is also contrary to the slaughter requirements of the FAO Animal Production and Health Manual (Good Practices for the Meat Industry) 2006 and the *Animal Welfare Act of 2008* which also requires stunning of animals before slaughter by an appropriate, recognized stunning method that must produce immediate unconsciousness that lasts until death.

Use of unhygienic tools or equipment: nine out of twelve equivalents to 75 percent of the visited facilities namely Vingunguti, Luvafeso-Kimara Suka, Ukonga Madizini, Ilemi, Uyole, and Sumbawanga, Kiborloni, Moshi and Nyakato-Mwanza did not use clean and sterilized tools such as axes, bush knives, and hangers in slaughtering, skinning and hanging of animals as required by regulation 13(1) (c) of TFDC (Food Hygiene), Regulation, 2006. The regulation requires any person who owns, operates or in charge of meat production premises to ensure that all equipment and utensils used are cleaned and sanitised prior to use to prevent contamination of food from micro biological organisms.

It was observed that the shortcomings were attributed by:-

- (a) *Tools were not owned and controlled by the owners of the facilities:* Interviewed facility owners' and meat inspectors mentioned that most tools were not owned and controlled by the owner of the slaughter facilities; Therefore, it became difficult for the meat and health inspector to monitor the hygiene of the tools. The audit team found that in Dodoma abattoir, SAAFI and Interchick, the tools were owned, controlled and washed/cleaned by the slaughter facilities and were in good condition.
- (b) *Lack of hot water to be used in sterilization of tools:* The audit team found that nine out of twelve equivalents to 75 percent of the visited slaughter facilities lacked supply of hot water that could facilitate sterilization of equipment used during slaughtering. Most of the slaughter facilities were using unsterilized equipment thus posing a risk for zoonotic diseases.

Non use of protective gears: Nine out of twelve equivalents to 75 percent of the visited slaughter facilities personnel performed their

activities without wearing protective gears such as white coats, gloves, caps and boots to protect them and avoid contamination of meat (Photo 3.3). In other areas, staffs were provided with only one pair of protective gear which was not adequate for them to use every day. Other owners did not provide protective gears to staff and told them to buy their protective gears from their own pocket. In addition, there were staff with protective gears but were reluctant to use them due to low understanding (lack of awareness) of their importance and weak enforcement of law refers Photo 3.3.



Photo 3.3: Showing People Performing Activities within the Slaughter Facility without having Protective Gears and dressing and evisceration is done on floor at Vingunguti Slaughter Facility on 11.12.2015

Medical check-up for staff working at the slaughter facility

The audit team found that 67 percent of visited slaughter facilities did not conduct regular staff medical check-up for staff working in a slaughter facility. However, it was difficult for auditors to know exactly number of staff who has not undertaken medical check up because in most slaughter facilities records of medical check and the actual number of people working at the facility were not available at the facilities. Few medical check-up records provided by facilities in

Mbeya and Rukwa indicated that medical check up for staff was done after three months.

During interviews it was revealed that slaughter facilities did not have permanent employed staff. Owners of animals brought their own staff for assisting in slaughtering, dressing, evisceration and handling of meat, therefore it was difficult to check and keep the records of medical check up for staff.

3.2.3 Unhygienic Transportation of Meat within and from the Slaughter Facility

The audit team found that meat transportation was not carried out in clean and safe condition in most of the visited slaughter facilities. This was evidenced by:

Use of Dirty/rust and Unapproved Meat Carrier: The audit team found that meat was transported using dirty carrier vans, motorcycles which were not designed for hygienic transport of the meat. For example, the audit team found that meat vans with rusty floor boards were carrying meat together with the van's spare tyre inside the van. Motorcycles were carrying meat contrary to the hygiene requirement which requires that no other products except meat shall be transported in carrier or container, in which meat is transported; and the walls, ceiling and floor of the compartment in which the meat is kept shall be made from rust, smooth, crack and corrosion resistant materials as shown in Photos 3.4 and 3.5 respectively.

In addition, meat vans were not packaged well as some carriers did not have hooks and hangers which results in meat being placed on bare floor boards which can easily contaminate the meat and pose risk to the public health. This problem is contributed by:-

- (a) *Use of unregistered meat vans for transportation of meat from the slaughter facility:* The audit team found that 67 percent of the visited slaughter facilities were either using unregistered meat carriers or other carriers whose registrations have expired.

(b) Non Issuance of Meat Transport Permit: The audit team found that in all visited slaughter facilities there were no permits issued by meat inspectors for transporting meat with exception of Interchick and Dodoma Abattoirs. This posed the risk of uninspected meat to be sent to the market by unfaithful business operators and unregistered meat carriers.

(c) Inadequate Inspection of Meat Carriers: With exception of Interchick and Dodoma Abattoirs the audit team did not see any evidence of inspection on meat carriers that was conducted by inspectors. This is because large quantity of meat was transported during the night whereby meat inspectors were hardly available at night. The audit team observed that, while meat inspectors proceed with meat inspection, meat owners were transporting the inspected meat at the same time. Therefore it was difficult for a meat inspector to handle both the physical meat inspection and meat van inspection (transportation) at the same time to verify whether meat is being carried by vans that comply with the requirements of meat transport.



Photo 3.4: Shows unhygienic Meat Van with Rust board/container Carrying Meat together with Spare Tyre at Luvafeso (Kimara suka) Slaughter Facilities on 8.12.2015



Photo 3.5: Shows meat traders with no protective gears parks meat at unauthorized motorcycle ready for safaris at Vingunguti Slaughter Facilities on 11.12.2015

Improper Movement or Transportation of Meat within the Slaughter Facilities: The Tanzania Food, Drugs and Domestic (Food hygiene), 2006 Regulation 12 (a) requires any person who, owns, operates or in charge of a food premises to ensure food transportation is conducted in a hygienic matter. The audit team found unhygienic movements of meat within Vingunguti slaughter facility which could easily lead to transmission of diseases from people to meat and vice versa see Photos 3.6.



Photos 3.6: Shows unhygienic movement of Meat within the facilities Vingunguti Slaughter

Audit Question 2: Are the inspections activities in meat production activities efficiently and effectively conducted by MALFD, TFDA and

3.3 Efficiency and Effectiveness of the Inspection Activities

The audit team noted that generally, inspections activities in meat production activities were not efficiently and effectively conducted by MALF, TFDA and LGAs. However, the audit team noted limited efforts made by TFDA MALF, and LGAs in inspecting slaughter facilities and measures taken as a result of their inspections. Nevertheless, those inspection activities conducted by MALF, TFDA and LGAs did not adequately address the problem of unhygienic conditions in meat production process due to the following reasons.

3.3.1 Weak/ Ineffective Inspection of Slaughter Facilities

The audit team found that, the inspection of slaughter facilities both prior to registration and after registration when the slaughter facilities were in operations, was not adequately addressing the hygiene problems. This was indicated by the following:

Presence of Operating Unregistered Slaughter Facilities

The review of 2014 TFDA's annual report on slaughter facilities in the country, indicated that 98 percent of the operating slaughter facilities were not registered (only 20 out of 932 slaughter facilities in the country have been registered). This is against the requirement of TFDA and Animal Disease Acts.

Section 18(1) of the *TFDA Act No. 1 of 2003*, requires all premises used for manufacturing of food to register before in use and regulation 5(1) of *Animal Disease (Ante and Post -Mortem Inspection) Regulation of 2007* requires all slaughter facilities to be registered before the commencement of their operations. The audit team found, slaughter facilities operate without being registered by MALF, TFDA or both as shown in Table 3.4. This anomaly was supposed to be enforced through periodical inspections.

Through the visits made in 7 LGAs, the audit team found that, 50 percent of slaughter facilities were not registered by TFDA as the facilities did not meet requirements for registration. The main requirements for the registration with TFDA and TMB include water supply in adequate volume and pressure, reservoir with capacity to supply adequate water in case of shortage, clean and adequate toilets and lavatories, adequate washing facilities, employees medical examination, proper waste disposal and safe disposal of waste and condemned parts.

Similarly, 83 percent of slaughter facilities visited were not registered by MALF as those which did not meet requirements for registration. The main requirements for the registration with MALF include: slaughter floor with sufficient rail hangers and hooks, water supply adequate in volume and pressure, clean and adequate toilets and lavatories, and number and qualifications of meat inspectors.

Table 3.4 indicates the main categories of slaughter facilities not registered by TFDA and MALF.

Table 3.4: Categories of unregistered slaughter facilities

<i>Category of Slaughter Facility</i>	<i>Total number of Slaughter Facilities</i>	<i>%age not registered by TFDA</i>	<i>%age not registered by MALF</i>
<i>Abattoir</i>	<i>11</i>	<i>0</i>	<i>73</i>
<i>Slaughter House</i>	<i>85</i>	<i>74</i>	<i>100</i>
<i>Slaughter Slab</i>	<i>1,094</i>	<i>100</i>	<i>100</i>

Source: review of registration status at MALFD and TFDA and Auditors' Analysis, 2016

Table 3.4 indicates that TFDA have not registered abattoir, slaughter houses by 74 percent and slab by 100 percent. Also the MALF has not registered abattoir by 73 percent and slaughter houses and slab by 100 percent.

The TFDA's registration status reports of 2015 also indicated that only 18 percent (6 out of 33) of inspected government-owned operating slaughter facilities did not qualify for registration because they were missing critical elements necessary for facilitating hygienic conditions in production of safe meat such as proper toilets and lavatories, presence of clean adequate water, good drainage system, foot and hand wash facilities.

The presences of unregistered facilities were caused by the following factors:

Inadequate Inspection conducted by MALF, TFDA and TMB:

Inspection by TFDA

It was noted during the audit that TFDA has managed to inspect 37.7 percent (380 out 1009) of the slaughter facilities in the country for the period from 2010/11 to 2013/14. This means that almost two-third of the slaughter facilities have not been inspected by TFDA to determine whether they were complying to the standard requirements of health and environmental conditions necessary to guarantee hygienic conditions in the meat production processes.

Inspection by MALF

Review of inspection reports from MALF found out that, most of the inspections were conducted in 2010/11 by the MALF, identified slaughter facilities which were eligible and illegible for registration. Thereafter, another inspection was conducted at Temeke Municipal Council for Pigs slaughter facilities in 2012/13 to respond to the public outcry as reported by uhuru newspaper issue No. 21404 of 18th January, 2013 with the heading "Walaji nyama Dar es salaam hatarini"¹¹. In the financial year 2010/11-2014/15 period under examination, inspections were not conducted in 2011/12, 2013/14 and 2014/15. Interviews noted that, this was attributed by lack of fund to facilitate inspections activities.

However, review of MTEF of the Ministry of Agriculture, Livestock and Fisheries Development for the period 2010/11 - 2014/15 indicated that in average, almost three-quarter of the budgeted funds for the ministry activities were released. This is indicated in Table 3.5.

¹¹ Taarifa ya ukaguzi wa Machinjio za Nguruwe kwenye Manispaa ya Temeke Iliyofanyika Tarehe 18/01/2013

Table 3.5: Fund Budgeted against Disbursed for the period from 2010/11-2013/14

<i>Financial Year</i>	<i>Amount Budgeted (in Billion TZS)</i>	<i>Amount Disbursed (in Billion TZS)</i>	<i>Percent of Amount disbursed (%)</i>
2013/14	68.4	50.6	74
2012/13	54.6	42.6	78
2011/12	59.5	43.2	72
2010/11	62.2	45.8	74

Source: MTEF and Annual Performance Reports, MALF

Table 3.5 shows that, for the period under examination MALF was receiving almost three-quarter of the requested budget for implementing their daily activities. But, it was further noted that the Ministry failed to conduct inspections to the slaughter facilities due to low priority given to the hygiene issues. As a result the problem of unhygienic practices kept on persisting despite various actors doing registration and inspections.

Weak Enforcement of Existing Laws and Regulations: Interviewed officials from TFDA, RS, MALF and MoHCDGEC, revealed that LGAs had a conflict of interest in the way they were running slaughter facilities under their ownership. This is due to the fact that on the one hand they were the owner and on the other hand they were inspectors of the slaughter facilities (enforcer of the Public Health Act in LGAs). They further indicated that their enforcement role was highly affected by being owners of the facilities.

They further noted that inspectors who were supposed to manage the daily hygienic practices were employed by LGAs and at the same time most of the slaughter facilities were owned and operated by the LGAs. Thus a decision of the inspector was much influenced by his/her employer.

Similarly, the 2014 TFDA Annual Performance Report revealed that 80 percent (746 out 932) of all the slaughter facilities in 2014 were owned by the Government. Among these only 20 percent were registered by TFDA, out of which only 4 of them were owned by government and 16 by private sector.

In this report TFDA declared that, presence of only 20 percent (4 out of 20) government owned slaughter facilities that meet registration criteria was an indication of poor enforcement of laws and regulations which was contributed by the conflicting roles of LGAs. Hence, unregistered slaughter facilities which did not meet hygiene standards posed risk of meat contamination.

Registered Slaughter Facilities were not maintained in Hygienic Standards

Regulation 5 of Animal Diseases Regulation of 2007 requires Local Government Authorities (LGAs) through their inspection to ensure that all premises registered for meat production are maintained and adhere to the prescribed public health standards throughout the duration of their registration.

The audit team noted that, there were registered slaughter facilities which did not meet the developed standard for registration including hygiene standard as indicated in Section 3.2 of this report.

In addition to weak implementation enforcement of laws, weaknesses of the registration checklists contributed to presence of registered facilities which were not up to standard. The analysis of registration checklist used by TFDA, MALF and TMB indicated that there were loopholes for registering slaughter facilities that did not meet all conditions.

Both TFDA and MALFD require the slaughter facilities to get minimum scores of 55 percent in order to be registered subject to having no disqualifying critical defects. The critical elements required include clean and adequate toilets and lavatories available, adequate water supply (in volume and pressure), slaughter floor with sufficient rail hangers and hooks, number and qualifications of meat inspectors, proper waste disposal in place, adequate sterilization facilities for equipment facilities, employee medical records and adequate hand washing facilities available.

In the visited slaughter facilities the audit team found that registered facilities were missing critical elements for registration as indicated in Tables 3.6 and 3.7.

Visited Registered Slaughter Facilities

The audit team found that there were registered facilities which did not meet the developed minimum standards for registration. Analysis of the registration check lists issued by TFDA, MALF and TMB show weaknesses and loopholes of registering facilities which do not meet all conditions. 50 percent of the registered slaughter facilities namely Lufaveso, Ilemi and Sumbawanga were found missing critical elements for registration by more than 57 percent as showed in Table 3.6.

This implies that the inspection carried by TFDA was not efficient and effective. MALF denied registration of some of the facilities which have been fully registered by TFDA. This further shows the poor harmonization and coordination of registration process.

Table 3.6: Missing Elements in the visited Registered Slaughter Facilities

<i>Slaughter Facility</i>	<i>Registration Status</i>		<i>% age of Critical Elements Missing</i>	<i>Example of critical items missing</i>
	<i>TFDA</i>	<i>MALF</i>		
<i>Dodoma Abattoir</i>	<i>Yes</i>	<i>Yes</i>	<i>0</i>	<i>Nil</i>
<i>Interchick</i>	<i>Yes</i>	<i>No</i>	<i>0</i>	<i>Nil</i>
<i>Lufaveso</i>	<i>Yes</i>	<i>No</i>	<i>57</i>	<i>Clean toilets and lavatories, foot, hand washing facilities and waste management.</i>
<i>Ilemi</i>	<i>Yes</i>	<i>No</i>	<i>71</i>	<i>Water supply in adequate volume and pressure, reservoir to supply water in case of shortage, clean toilets and lavatories.</i>
<i>Sumbawanga</i>	<i>Yes</i>	<i>No</i>	<i>57</i>	<i>clean toilets and lavatories, washing facilities, employees medical examination, Sewage management,</i>
<i>SAAFI</i>	<i>Yes</i>	<i>Yes</i>	<i>0</i>	<i>Nil</i>

Source: Registration checklist and Auditors' Analysis, 2016.

Table 3.6 indicates that 3 out of 6 visited registered slaughter facilities are fully complying to all requirements by having in place all 7 critical elements (see above). On the other hand, the other three slaughter facilities of Lufaveso, Ilemi and Sumbawanga are missing more than 57 percent of the critical elements which are critical for guaranteeing hygienic conditions in the meat production process.

Further analysis of the quality of inspection conducted by TFDA before the registration of the slaughter facilities indicated to be less effective in some areas. This is due to the fact that these facilities were fully registered by TFDA while MALF denied them the registration.

This is an indication of the inefficiency and ineffective inspections done prior to registration of slaughter facilities, creating a room for meat production to be carried out in the facilities that does not support hygienic condition as discussed in Section 3.2.1 of this audit report. It is also an indication of unharmonized and uncoordinated registration process.

Visited unregistered Slaughter Facilities

Six unregistered facilities visited by the audit were found not complying with condition for registration and were missing an average of 5 critical elements which are clean toilets and lavatories, foot bath and hand washing facilities and employees' medical examination which are necessary for guaranteeing hygienic conditions. The quality of inspection by both TFDA and MALF were found to be efficient and effective since both institutions denied registrations of those facilities however these facilities continued operating without being registered indicating weak enforcement mechanisms by both TFDA and MALF.

Table 3.7: Missing Elements in the visited unregistered Slaughter Facilities

<i>Slaughter Facility Name</i>	<i>Registration Status</i>		<i>% age of critical elements missed</i>	<i>Example of critical items missing</i>
	<i>TFDA</i>	<i>MALF</i>		
<i>Vingunguti</i>	<i>No</i>	<i>No</i>	<i>71</i>	<i>foot and hand washing facilities, proper sewage disposal, Slaughter floor with sufficient rail hangers and hooks</i>
<i>Ukonga Madizini</i>	<i>No</i>	<i>No</i>	<i>71</i>	<i>medical examination, Slaughter floor with sufficient rail hangers and hooks</i>
<i>Uyole</i>	<i>No</i>	<i>No</i>	<i>86</i>	<i>clean toilets and lavatories, foot and hand washing facilities, Slaughter floor with sufficient rail hangers and hooks.</i>
<i>Moshi</i>	<i>No</i>	<i>No</i>	<i>71</i>	<i>employees medical examination, proper sewage disposal, Slaughter floor with sufficient rail hangers and hooks.</i>
<i>Kiborloni</i>	<i>No</i>	<i>No</i>	<i>86</i>	<i>clean toilets and lavatories, foot and hand washing facilities, employees medical examination,</i>
<i>Mwanza</i>	<i>No</i>	<i>No</i>	<i>71</i>	<i>clean toilets and lavatories, foot and hand washing facilities,</i>

Source: Registration Checklist and Auditors' Analysis (2016)

Table 3.7 indicates that all 6 visited unregistered slaughter facilities do not comply to all requirements by missing an average of 5 critical elements (see above). They mostly miss clean toilets and lavatories, foot and hand washing facilities and medical employees' examination which are critical for guaranteeing hygienic conditions in the meat production process.

This is attributed by *presence of many actors responsible for registration*. The audit found that there were three actors which were responsible for registration of slaughter facilities and there were no clear boundaries differentiating or indicating which registrations were compulsory.

Table 3.8 that indicate registration powers of the Ministry of Agriculture, Livestock and Fisheries Development (MALFD), Tanzania Meat Board and that of the Tanzania Food and Drugs Authority to register slaughter facilities in the country.

Table 3.8: Registration Powers of MALF, TMB and TFDA

<i>Entity</i>	<i>Power</i>
<i>MALF</i>	<i>Is required to register all slaughter facilities before the commencement of their operations (Source: Animal Disease (Ante and Post -Mortem Inspection) Regulation, 2007 Regulation 5(1))</i>
<i>TFDA</i>	<i>Is required to register all premises used for manufacturing of food (Source: TFDC Act Section18 (1))</i>
<i>TMB</i>	<i>Registrar is required to keep and maintain a register of livestock or meat producers in the country (Meat Industry Act, 2006)</i>

Source: TFDA Act, Animal Diseases Act and Auditors' analysis (2016)

As seen in Table 3.8 MALF and TFDA have the mandate of registering slaughter facilities. Both of them draw their mandates from two different legislations and it was noted during the audit that they have different interpretation of their mandates.

Through the interviews with officials from TFDA and MALF, it was noted that this overlap of power and responsibilities has the following effects:

Two institutions namely MALF and TFDA were exposed to different laws to make registrations of slaughter facilities without clear boundaries and responsibilities of each. The outcome of such arrangement was that some operating facilities were not registered.

3.3.2 Inspection of Animals and Meat was not done efficiently

The audit team noted some weaknesses in the inspection of animals which indicated that the animals were not inspected efficiently.

Through observations made by auditors when visited twelve slaughter facilities, the auditors found the following:

Animals did not rest before being slaughtered

In 10 out of 12 or 83 percent of the slaughter facilities animals were slaughtered without being rested for 24 hours as required by section 51(2) of the animal Disease Act No.17 of 2003. While 40 percent (4 out 10) of the facilities, inspection and slaughtering was done at the same time; 60 percent (6 out 10) of the facilities carried-out the ante mortem inspection in the evening and slaughtering either took place at midnight or early in the morning. These animals had been rested for only 15hrs or 62 percent of the required time.

On the other hand, it was also noted that even the tired animals were slaughtered without being rested for few hours. This made it hard to detect whether those animals were fit for being slaughtered or not. This posed a health threat for those who ate the meat.

Post-Mortem Inspection was not sufficiently conducted

Normally a post mortem inspection is required to be carried-out on dressed carcass to detect diseases or conditions which might prevent the carcass from being approved for human consumption. During the audit, the following were observed:

(a) Meat Inspection was not thoroughly conducted

It was noted that on average the Meat Inspector took less than a minute to inspect one carcass and other parts which was practically ineffective as on average it is required that the inspector take about 4 minutes to inspect one carcass.

Interviews held with officials from MALF, RS, District Veterinary Office and In-charge of meat inspectors, confirmed that usually it takes 3-5 minutes to thoroughly inspect one animal.

In addition, in some facilities it was found that some animals were not inspected because of the small number of inspectors and less working hours which did not match with the number of animals slaughtered per day. This case was noted in Vingunguti slaughter facility whereby the average number of animals slaughtered per day was 415 while the maximum number of animals that can be inspected based on the working hours and available staff was 315, and thus 100 slaughtered animals (equivalent to 32 percent of animals slaughtered daily) were not inspected.

(b) Meat inspection results were not verified

The audit team found that 92 percent of the facilities were conducting meat inspection by using physical means that seeing, touching, and smelling this means they relied on observation in order to detect diseases or health problems. 11 slaughter facilities did not have mini laboratories for testing or confirming preliminary results found during inspection. As a result it was difficult to detect other diseases which could not be detected by physical means and those which are uncommon. Therefore, the preliminary result of the inspection of carcass was taken as the final and conclusive and hence the meat inspectors certify that the meat is safe for human consumption. This creates a high risk of sending unsafe meat to the public.

(c) Parts of Meat from Different Animals were Mixed

In 3 out of 12 slaughter facilities namely Vingunguti, Lufaveso and Nyakato various parts of animals were placed together for inspection due to lack of space that could allow proper inspection of these parts as indicated in Photo 3.7. Contamination of one carcass from one animal to another is also possible limiting the possibility of tracking the source of the diseased animal. This occurred due to lack of specifically allocated spaces for meat inspection which could allow properly conducted inspection of those parts of slaughtered animals.



Photo 3.7: Showing Mixed Livers and Kidney from different slaughtered animals during the Inspection at Lufaveso slaughter facility in Kinondoni MC.

(d) Lack of Quality Control in Meat Inspection Process

Meat inspection was done by one inspector and there was no one else responsible for ensuring that inspection was conducted as stipulated. Inspector's decision was final as observed in 83 percent of the visited slaughter facilities.

(e) Inspections were conducted under the Influence of Cattle Owners

Cattle owners were required to be far from that area and wait for the outcome of the conducted inspections. However, in all visited slaughter facilities with exception of three slaughter facilities namely, SAAFI, Interchick and Dodoma Abattoirs, the audit team found that, the inspection process at slaughtering areas were conducted under close supervision of meat owners. As a result, the independence of meat inspectors in making decision might be jeopardized and compromised.

(f) **Inadequate Documentation of Inspection Data**

In 5 out of 12 slaughter facilities visited (namely, Lufaveso, Ukonga, Kiborloni, Moshi and Uyole), the audit team did not find any records regarding ante mortem inspection this indicates that there is a possibility of not conducting ante mortem inspection. This is contrary to Regulation 6(2) (h) of the Veterinary Regulations, 2011 GN 359 which requires meat inspectors to keep records on meat inspected and produced monthly reports. Records of post mortem inspections were available and were communicated to District Veterinary Office weekly. Moreover, the audit team observed a meat inspector inspecting more than 300 animals per night without note books which could assist the meat inspector in keeping records and preparing the report. Furthermore, it was noted that there was a great risk for getting wrong data relating to diseases detected as meat inspectors were not keeping records during inspection.

The inefficiencies of animals' inspection were contributed by:

Inadequate staff (Meat Inspectors): The audit team found that there were shortages of 40 percent of Meat Inspectors in Vingunguti where there were a large number of animals slaughtered per day.

Higher Workload of Meat Inspectors: The team found heavy workload of meat inspectors in Vingunguti and Ukonga facilities compared to the other facilities in Dar es Salaam. An inspector could take more than 10 hours nonstop to complete inspection of more than 100 animals in Vingunguti and Ukonga facilities. This affected inspectors' performance in terms of efficiency and accuracy. Table 3.9 indicates the number of animals slaughtered and the number of meat inspectors available in the visited slaughter facilities.

Table 3.9: Number of Animals Inspected per Day in the Visited Slaughter Facilities

<i>Slaughter Facility</i>	<i>Average Number Cattle Slaughtered per day</i>	<i>Number of Meat Inspectors available</i>	<i>Number of Animals Inspected by one Inspector</i>
<i>Vingunguti</i>	466	3	155
<i>Ukonga Madizini</i>	300	3	100
<i>Lufaveso</i>	80	1	80
<i>Nyakato</i>	230	5	46
<i>Ilemi</i>	27	1	27
<i>Moshi</i>	27	2	13
<i>Kiborloni</i>	12	1	12
<i>Uyole</i>	11	1	11
<i>Sumbawanga</i>	22	2	11

Source: Review of animals slaughter, number of staff per shift and Auditors' Analysis (2016)

As indicated in Table 3.9, the number of animals inspected varies from 11 - 155, with Vingunguti and Ukonga indicating higher number of animals inspected per day of 155 and 100 respectively. This affected the efficiency and accuracy of the inspection.

Inadequate Skills of Meat Inspectors: According to the interviews held with officials from MoHCDGEC and Meat Inspectors, it was revealed that, there was no preparatory course offered to newly recruited meat inspectors to guide them on their job. Moreover, there were no refresher courses conducted to meat inspectors in relation to their jobs despite the fact that there is changing technology in the field of meat inspection. The information was verified through the reviewed made of MTEF of LGAs and Ministries where it was noted that there was no activities associated with capacity building to meat inspectors.

Poor Structure and inadequate infrastructures of the slaughter facilities: As presented in Sections 3.2.1 and 3.2.2 of this report, infrastructure of the slaughter facilities did not support the inspections to be carried-out efficiently at the time of this report. This is because of the missing structures such as inspection rooms, mini-laboratories, and animal holding space, separation of clean and dirty areas, hooks and rail for hanging animals.

3.3.3 Inspection Results were not communicated to all Key Stakeholders

It was noted that both TFDA and LGAs did not submit or share their inspection reports with key stakeholders who were supposed to receive those reports as indicated in Table 3.10.

Table 3.10: Communication of TFDA and LGAs Inspections to Various Stakeholders

<i>Inspection Report from Authorities</i>	<i>Stakeholders to be provided with the Report</i>					
	<i>MALF</i>	<i>MoHCDGEC</i>	<i>LGAs</i>	<i>TFDA</i>	<i>RS</i>	<i>PO RALG</i>
TFDA	Not at all	Not at all	Yes	-	Yes	Rarely
LGAs	Not at all	Not at all	-	Yes	Rarely	Rarely
RS	Not at all	Rarely	Rarely	Rarely	-	Rarely

Source: Communication of inspection reports and Auditor's Analysis, 2015

As shown in Table 3.10 TFDA communicated its inspection reports to LGAs, RS and to the owners of slaughter facilities, and they rarely communicated those inspection reports to PO RALG. The audit team did not find -evidence showing the inspection reports were sent to MALFD or MoHSW. This was confirmed during the interview with official from the Department of preventive service at the MoHCDGEC. Also, LGAs rarely communicate the inspection results to RS and PO RALG and neither to MALF nor MoHCDGEC.

Similarly, RS did not communicate to MALF and rarely communicated to MoHCDGEC, LGAs, TFDA, and PO RALG. As a result there was inadequate implementation of inspections recommendation. However, the audit team noted that inspections conducted at Huacheng International Ltd and S&Y Gourment Meat Co. Ltd was communicated to various stakeholders such as TFDA, MALF, MoHCDGEC, National Environmental Management Council (NEMC) and RAS-Dodoma. Consequently, the National Environmental Management Council (NEMC) closed the slaughter facilities. The audit team noted that, failure to communicate the inspection reports to all key stakeholders, affected the implementations of hygienic condition

because other actors who were also the decision makers missed the opportunity of using the same information as a basis for taking corrective measures.

Interviews held with officials from the Ministries and seven LGAs visited during the audit, revealed that inadequate coordination among the key stakeholders in the livestock sector contributed to the problem. As it was also revealed that failure of proper documentation of inspection results was due to lack of close supervision and enforcement in the slaughter facilities.

3.3.4 Recommendations issued by TFDA were not adequately implemented

The audit team noted that, the recommendations issued by TFDA were not adequately implemented by owners of slaughter facilities, although TFDA managed to conduct many inspections of slaughter facility compared to the other entities entitled to do so.

In each of the inspections conducted, TFDA issued a number of recommendations focused on improving hygiene. Furthermore, in some areas TFDA decided to close slaughter facilities such as Vingunguti, Nyakato-Mwanza, Sumbawanga, Ilemi, Uyole and Ukonga. In this regards, TFDA attempted to fulfill its obligations. However, as discussed in Section 3.2 of this audit report, unhygienic problems such as use of dirty/rusty meat carrier, non use of protective gears, lack of restriction on movement of people from anywhere within the facility such as toilets and no medical checkup.

Through the interviews held with TFDA officials, it was also revealed that inadequate implementation of TFDA's recommendations was influenced by interference with the directives from various actors.

Interviewed officials from TFDA and RS, indicated that the effect of closing slaughter facilities caused a lot of public outcry because of the nature of the services provided. This compelled some actors such as District Commissioner and Regional Commissioner to direct TFDA to allow the operations of slaughter facilities to proceed with the condition that LGAs would implement the given recommendations. As a result the level of the implementation of the recommendations was minimal and lacked desired deterrence effect. Hence, they did not

make a significant noticeable improvement of hygiene condition of slaughter facilities.

Moreover, there was inadequate follow-up and enforcement of the TFDA's recommendations by both MALF and PO RALG. Also, PO RALG issued directives to LGAs through RS in 2012 on improving hygiene in slaughter facilities based on recommendations issued by TFDA but no follow up was made by PO RALG to monitor and assess its implementation.

Audit Question 3: Do MALF, PO RALG and MoHCDGEC adequately monitor and evaluate existing hygiene control systems in meat production process?

3.4 Monitoring and Evaluation of Hygiene Practices in Meat Production Process

The audit team found that, there were shortfalls in monitoring and evaluation of hygiene in meat production process by both Central and Local Government Authorities as explained below:

3.4.1 Inadequate Monitoring and Evaluation by Central Government entities (MoHCDGEC, PO RALG and MALF)

According to the PO RALG's Approved Organisation Structure and function, it requires PO RALG through Sector Coordination Unit to monitor and coordinate the performance of LGAs in delivering of livestock service. The Ministry of Agriculture Livestock and Fisheries is required to facilitate and monitor meat hygiene in slaughter facilities. Similarly, the Ministry of Health, Community Development, Gender, Elderly and Children is required to provide food quality service; and to supervise the Tanzania Food Drugs and Authority¹².

During the audit, the following weaknesses were noted:

Ministries did not adequately implement their M&E Plan

In reviewing MALF's Medium Term Expenditure Framework of the concerned central government entities namely, MALF, MoHCDGEC and PO RALG for the period from 2011/12 up to 2014/15 it was found that,

¹² Roles of the MoHCDGEC accessed from moh.go.tz on 26th October, 2015

all the Ministries had the element of monitoring and evaluation in their plans.

The analysis of their plans indicated that not all ministries' plans did address the hygiene issues. Unlike MoHCDGEC and MALF, PO RALG plans did not include matters related to hygiene of meat production. Its plans mainly focused on evaluation of other animal products like performance of animal skin.

For the case of MALF, the team found that MALF included the hygiene issue in their plans but were not adequately implemented as funds were not allocated due to low priority given to the activity by the ministry. .

MoHCDGEC included the hygiene issue in their plan and they conducted national environmental competition, hygiene of slaughter facilities being one of the items covered. The audit team however, did not find any report produced by MoHCDGEC regarding the effectiveness of the National Environment Competition in hygiene control in meat production process.

Ministries did not Monitor and Evaluate the Performance of Authorities¹³

Through the review of monitoring and evaluation reports of livestock and agriculture from PO RALG, the audit team did not find any information collected by PO RALG regarding the performance of LGAs in delivering safe meat to the public except those relating to the animal skin production. As a result of this, they did not know the extent of unhygienic practices in meat production process and no intervention has been made to rescue the public health.

Similarly, through the interviews held with senior officials from the Department of Preventive Service of the Ministry of Health, Community Development, Gender, Elderly and Children, the audit realized that the MoHCDGEC did not adequately supervise the performance of TFDA in ensuring the adherence of hygienic practices in meat production.

Furthermore, it was noted during the audit that MALF did not monitor the Zone Veterinary Centre in ensuring that, slaughter facilities within

¹³ TFDA, LGAs and Zone Office

the area of jurisdiction were identified and submitted abattoir forms with information of animal diseases as required.

Interviews held with officials of Sumbawanga and Mwanza zones revealed that the official didn't know where the information about animals' diseases came from. Also, the MALF did not analyse and compile data obtained from Zone Centres and it was not easy for the audit team to prove if the information collected were used by the Ministries for enhancing performance of the actors who reports to them.

Causes of inadequate Monitoring and Evaluations of Performance of Authorities

Various reasons for inadequate Monitoring and Evaluation of the Authorities were identified through reviews of documents such as annual reports and interviews held with officials from visited LGAs and Ministries as follows:

Ineffective Reporting Systems

Reporting system of TFDA, MoHCDGEC, MALF and PO RALG were not functioning effectively. This is indicated by:

Weak supervision of TFDA activities by MoHCDGEC: The MoHCDGEC's official stated that, they did not have any report or information from TFDA which indicated meat safety as a result of TFDA's inspections on slaughter facilities. Based on interview, the audit team noted that inadequate coordination within the ministry itself and between TFDA and MoHCDGEC attributed to the MoHCDGEC's failure to monitor the performance of TFDA in enforcing hygienic practices in meat production chain. As a result the health of meat consumer is at risk as stated in Section 3.2.

Reports were not focused on meat hygiene: The audit team found that there was no report available at PO RALG showing the performance of Livestock Service by LGA despite of having a coordinator responsible for the sector. The only report available was that related to Agricultural Sector Development Programme, where the element of hygiene in meat production was not covered.

Insufficient information of hygienic practices of meat production: The audit team found that the MALF monitored the number of slaughtered animals, and diseases detected, disease control and livestock market

only. With exception of Dodoma Veterinary Zone Centre, other zones did not report on conditions of slaughter facilities and they were unaware of the total number of the slaughter facilities within their areas of jurisdiction. This was caused by different reporting formats, lack of supervision and feedback on reports produced.

Lack of Defined Key Performance Indicators for Monitoring TFDA, LGAs and Zonal Veterinary Centres (ZVC)

The audit found that MoHCDGEC did set out performance indicators for assessing TFDA enforcement activities especially in areas of food safety. Therefore no M&E was carried out to assess TFDA performance in enforcement of hygiene issues in meat and food production in general.

Similarly, PO RALG did not have key performance indicators for LGAs and RS to enable assess their performance in livestock sector specifically in hygiene conditions of abattoir and meat safety.

MALF had performance indicators in livestock development strategy to enable assess the number of standard slaughter facilities in use verified through LGAs reports. However, not a single report was found either from LGAs or ZVC which indicate the number of available standard slaughter facilities in their areas.

Ineffective coordination between the PO RALG and Sector Ministries

There was a gap between PO RALG and sector ministries during the planning and implementation of the various strategies. The case of the livestock development strategy of 2010 which was not disseminated to PO RALG by MALF despite of the fact that PO RALG was supposed to enforce implementation of the strategy by LGAs, as a result this strategy was not achieved.

Ministries have not evaluated the effectiveness of Hygiene Control Mechanisms

Both MALF and the MoHCDGEC did not conduct any assessment of the effectiveness of the control mechanisms in addressing the hygienic practices despite the existence of such mechanisms such as laws and regulations, guidelines for registration of slaughter facilities, design and layout of slaughter facilities, guidelines for inspection of slaughter

facilities and checklist for inspection of hygiene practices in slaughter facilities. The ministries were still complaining about poor hygiene conditions in meat production process. This means that control mechanisms were not adequately implemented and were not effective in addressing unhygienic problems in slaughter facilities.

This situation was attributed by lack of accountability as there were many actors and overlapping roles in control hygiene in slaughter facilities. The lack of clear roles and responsibilities among the factors contributed to each ministry blaming one another as the cause of the poor performance in hygiene of the slaughter facilities.

Monitoring Reports are not shared among the Ministries

Through the interviews it was learnt that there was no sharing of monitoring results among the ministries responsible for ensuring safe meat was delivered to the public. Monitoring reports were not submitted to Ministries responsible in meat production chain for further corrective actions with an intention of improving hygienic conditions in meat production process.

The same scenario was noted through the review of livestock development strategy which requires for establishment of mechanisms for joint co-ordination of control of zoonotic diseases between the MALF and MoHCDGEC for the purpose of safe guarding the public health. Instead, the two ministries were rarely meeting and those meetings were only through task force in case of worsening unhygienic situations. It was noted during the audit that the approach employed to manage and monitor hygienic conditions in meat production process was unsustainable due to lack of ownership and clearly defined lines of accountability.

Monitoring and Evaluation reports did not address unhygienic practices in meat Production Process

The audit found that despite MALF being tasked to ensure safe meat was delivered to public, the M&E reports did not report anything about unhygienic practices such as slaughtering on the floor, use of unsterilized equipment or use of unhygienic vehicles for carrying meat in the slaughter facilities. There is clear strategy in future employed

by the ministries to overcome the unhygienic practices in meat production process.

This resulted into lack of any recommendation concerning the hygiene practises in the slaughter facilities and hence no future strategy was employed by ministries to overcome the unhygienic practises in meat production process.

3.4.2 Monitoring and Evaluation by Regional Secretariat

The National Livestock Policy (2006) requires Regional Secretariat (RS) to co-ordinate the implementation of Livestock Policies in the Region including monitoring and control of zoonotic diseases to ensure quality of animal products with a view to safeguarding the human health. In this case, RS is expected to conduct monitoring and evaluation in their respective regions either through the review and analysis of reports submitted to them by LGAs and/or site visits to the slaughter facilities whenever necessary.

During the audit, the following were found as far as M&E by RS was concerned:

Only 33 percent of all visited Regions implemented their Monitoring and Evaluation Plans

Through the interviews held with officials from Regional Secretariats of Dodoma, Mbeya, Rukwa, Kilimanjaro, Mwanza, and Dar es Salaam, it was found that all regions did not adequately implement their M&E plan. This is despite that they included monitoring and evaluation of livestock activities in their Medium Term Expenditure Framework for the period from 2011/12 - 2014/15.

Among the six (6) visited regions, Dar es Salaam and Rukwa Regional Secretariats conducted monitoring and evaluation of slaughter facilities which focused on hygiene practices in meat production process. Various recommendations regarding the improvement of hygienic practices at slaughter facility were issued to LGAs for implementation and enforcement. The given recommendations were addressing the following challenges: improvement of slaughter infrastructures, supply of adequate water, proper treatment and disposal of waste from slaughter facilities, proper handling of animals and use of protective gears.

Similarly, the monthly and quarterly progress reports were received from LGAs, and for those who didn't submit the report, the RS reminded them to send the said report. Even-though, Dar Es Salaam RS took initiative for ensuring that LGAs submit to them monthly and quarterly progress reports as required, it was noted that no analysis was made on the reports submitted and no feedback was provided to LGAs. Besides, RSs did not submit to the ministries any consolidated report showing the status of the region as far as hygiene in meat production process was concerned.

Reports from LGAs didn't address unhygienic Practices in Meat Production Process

Review of LGAs monthly, quarterly and annual reports on livestock sector submitted to RAS found that, the report did not have detailed information on the unhygienic practices in the slaughter facilities. They report on the number of slaughtered, disease detected revenue collected and parts condemned. In Dodoma region there were no reports submitted and available to RAS Offices

Two factors are responsible for this situation, First inadequate follow up of LGAs activities which are supposed to be done by the RS including demanding for such report to be submitted on time. Secondly the RS has not designed reporting format that would assist LGAs to provide the information required.

Inadequate implementation of the issued Recommendations

The audit team found out that both TFDA and RSs issued a number of recommendations to LGAs for improving hygiene in all the 12 slaughter facilities visited. Two categories of recommendations were given. The first recommendation aimed at addressing some of the noted minor defects on operations and on the environment such as repair of deteriorated floor, improving waste management system, conducting staff health check up and the availability of adequate water and disposal of waste.

The second recommendation was calling for closure of the facilities pending major improvements such as slaughtering in proper areas, ante mortem before slaughter, stop meat trade within the facility. Such recommendations were issued to Uyole, Lufaveso and Vingunguti slaughter facilities. Analysis of the implementation of

recommendations given showed that only 25 percent were fully implemented and the remaining 75 percent were not implemented to the satisfaction of TFDA and RS (Table 3.11).

Further analysis to establish the extent of implementation of given recommendations showed that, only 25 percent of the given recommendations were fully implemented and the remaining 75 percent were not implemented to the satisfaction of TFDA and RSs.

Two contributory factors were found namely, inadequate follow up of LGAs activities which are supposed to be done by the RS including demanding for such report to be implemented by LGAs. Second, inadequate communication of the inspection report, TFDA inspection reports were only communicated to the owner of the slaughter facilities and to RS as a result sector ministries and PO RALG were unaware of the issued recommendations.

Table 3.11 indicates the category of given recommendations and the level of implementation of those recommendations.

Table 3.11: Level of implementation of given recommendations per category

<i>Slaughter Facility</i>	<i>Category of Recommendation</i>	<i>Number of Recommendations</i>	<i>%age Implementations</i>
<i>SAAFI</i>	<i>Call for improvement</i>	<i>1</i>	<i>0</i>
<i>Nyakato</i>	<i>Call for closure</i>	<i>8</i>	<i>0</i>
<i>Vingunguti</i>	<i>Call Closure</i>	<i>6</i>	<i>17</i>
<i>Uyole</i>	<i>Call for closure</i>	<i>8</i>	<i>50</i>
<i>Ilemi</i>	<i>Call for improvement</i>	<i>8</i>	<i>63</i>
<i>Sumbawanga</i>	<i>Call for improvement</i>	<i>7</i>	<i>71</i>

Source: Inspection form and Auditors' Analysis (2016)

Table 3.11 shows that the recommendations issued by TFDA were implemented by 0-71 percent. It shows that recommendations issued to slaughter facilities were not fully implemented. 3 out of 6 slaughter facilities were able to implement half of the issued recommendations while 2 slaughter facilities implemented none of the recommendations.

Through the interviews held with officials from LGAs, TFDA and RSs it was revealed that shortage of funds and non prioritization of activities relating to slaughter facility were the main reasons for inadequate implementation of the given recommendations.

The same reasons were confirmed during interviews by the In-charges of the visited slaughter facilities. The in-charges pointed out that equipments used for cleaning of slaughter facilities and slaughtering were not provided to them on time. Sometimes protective gears like coats, boots and masting tape were bought by themselves.

Furthermore, it was also noted that, despite of actions being taken by TFDA such as closing of slaughter facilities and issuing of recommendations for short and long term implementations, still 75 percent of the visited facilities operated in condition which risk the safety of public health of meat consumers.

CHAPTER FOUR

CONCLUSION

4.1 General Conclusion

The general conclusion of this audit is that there is no assurance that, the meat delivered to the public in some of the visited slaughter facilities is safe for human consumption, as Meat inspection and sanitary controls in many slaughter facilities are currently unsatisfactory. This is because the hygiene control mechanisms are not effectively and efficiently managed by the Ministry of Agriculture, Livestock and Fisheries (MALF), President's Office Regional Administration and Local Government (PO RALG) and Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC).

The following are specific conclusions:

4.2 Meat Production is carried out in Unsatisfactory Hygienic Conditions

Slaughter facilities lack critical infrastructures required to support hygiene conditions necessary to produce safe meat for our consumers as 75 percent of the facilities are maintained in an unhygienic conditions.

The Ministries of Livestock and Fisheries, The Prime Minister's Office Regional Administration and Local Government and Ministry of Health, Community Development, Gender, Elderly and Children and their regulatory institutions had weak enforcement mechanisms of the existing laws and regulations guiding the adherence to proper hygiene practices in meat production process. The weak enforcement of the law and regulations was mainly attributed by the fact that the LGAs have a triple conflict of interest for being the owner of most slaughter facilities, the supervisor as well as the regulator.

As a result, there are operating slaughter facilities that were found to be unfit for hygienic slaughtering practices. Moreover, the primary

objective of some slaughter facilities were changed from slaughtering place to meat and other commodities market place leading to chaos in the slaughter facilities¹⁴. Also, Meat carriers in place did not support adherence of hygienic practices during the meat transportation within and from the facilities.

4.3 Inspection Activities are not carried out in Efficient and Effective way

The inspection activities conducted by MALF, TFDA and LGAs were not effective and efficiently addressing the unhygienic conditions in meat production process. This was indicated by the presence of 98 percent of operating unregistered slaughter facilities. Also, 50 percent of those visited registered slaughter facilities were not maintained in hygienic standards. Presence of unregistered slaughter facilities signifies the ineffective of inspection of slaughter facilities prior to registration and during its operations.

Also, TFDA delegated activities to LGAs like inspection and registration of slaughter facilities were not effective and supervised. As a result, most of the slaughter facilities infrastructures were found to be not in conditions that support hygiene condition.

Inspections of animals and meat conducted by LGAs were not efficiently carried out in addressing the unhygienic practice in meat production process. In 11 out of 13 inspected slaughter facilities ante mortem inspection were not properly done. Inspections standard procedures were not followed and inspection results were not verified.

Very rarely LGAs and TFDA shared/submitted inspection reports to relevant higher authorities. The inspection reports also contained little information regarding the hygiene of the slaughter facilities. These were due to lack or ineffective coordination mechanisms of stakeholders and enforcement done by the RS and the Ministries. Consequently, due to this weakness the unhygienic practices in meat production processes continue to flourish.

¹⁴ *This serious problem for slaughter facilities located in Ilala Municipal Council only.*

4.4 Monitoring and evaluation of Hygiene Control is not adequately done

The MALF, PO RALG, MoHCDGEC developed M&E plans, however they did not adequately conduct monitoring and evaluation of hygiene control mechanisms. The ministries lacked comprehensive plan for monitoring performance of LGAs and TFDA on enforcement of hygiene conditions through their inspection services. Equally, the Ministries lacked well defined effective and functional reporting mechanisms on hygiene situation of slaughter facilities.

Also, the Ministries developed and disseminated guidelines checklists for inspection. However, they did not managed to assess their effectiveness in addressing hygiene issues in meat production. This was attributed by lack of accountability and coordination among the two ministries with regards to hygiene of meat production process. The lack of accountability on the part of the MALF and MoHCDGEC and poor coordination mechanism contributed to poor enforcement of laws, regulations and guidelines governing the control of hygiene in meat production process threatening the safety and health of consumers.

CHAPTER FIVE

AUDIT RECOMMENDATION

5.1 Introduction

This chapter contains recommendations to the Ministry of Agriculture, Livestock and Fisheries, President's Office Regional Administration and Local Government and the Ministry of Health, Community Development, Gender, Elderly and Children on what should be done to improve the hygiene standards in meat production process. The audit office believes that these recommendations if fully implemented will improve the hygiene condition and ensure the presence of the 3Es of Economy, Efficiency and Effectiveness in the use of the public resources.

5.2 Maintaining Hygienic Standards in Meat Production Process

5.2.1 The Ministry of Agriculture, Livestock and Fisheries should:

- a) Develop slaughter facility registration checklist for each type of slaughter facilities with conditions that do not give room for registration of unqualified slaughter facilities; and
- b) Develop effective mechanism for enforcing the adherence of registration checklist during and after registration.

5.2.2 The President's Office Regional Administration and Local Government should:

- a) Strengthen mechanism for enforcing the owners of the slaughter facilities to construct slaughter facilities that comply with the standards and regularly maintain them in good hygiene conditions; and
- b) Develop mechanism for operating public owner slaughter facilities that will enable LGAs to perform their supervisory and regulatory roles effectively.

5.2.3 Ministry of Health, Community Development, Gender, Elderly and Children should:

- a) Develop Food Safety Policy for harmonizing and streamlining the roles of different actors (MALF, PO RALG and MoHCDGEC) in managing hygiene of meat production.

5.3 Improving the Effectiveness and Efficiency of Inspection Activities

5.3.1 Ministry of Agriculture, Livestock and Fisheries should:

- a) Develop systems for ensuring and facilitating effective meat inspection activities.

5.3.2 The President's Office Regional Administration and Local Government should ensure:

- a) LGAs conduct efficiently inspection of hygiene condition of slaughter facilities and report the inspection results to all levels of administration i.e. National, Regional and Council.

5.3.3 Ministry of Health, Community Development, Gender, Elderly and Children should:

- a) Ensure TFDA performs their regulatory function as required in area of slaughter facilities and slaughtering process; and
- b) Establish coordinating mechanism that will facilitate proper implementation of TFDA's activities.

5.4 Monitoring and Evaluation of the Hygiene Control Systems

5.4.1 Ministry of Agriculture, Livestock and Fisheries should:

- a) Establish performance measurement framework for hygiene practices in meat production process based on the service delivered in the country.

5.4.2 *The President's Office Regional Administration and Local Government should ensure that:*

- a) Develop effective reporting system of the livestock activities and ensure that Regional Secretariats submit performance reports on issues regarding hygiene of slaughter facilities to MoHCDGEC and MALF; and
- b) Availability of qualified staff in LGAs to handle the whole process of meat production in slaughter facilities and ensure that staffs are equitably allocated based on capacity of slaughter facilities.

5.4.3 *Ministry of Health, Community Development, Gender, Elderly and Children should:*

- a) Establish mechanism that will enable regular inspection of slaughter facilities and ensure slaughter facility stakeholders' compliance with laws, regulations and standards of hygiene in meat production processes.

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APPENDICES

Appendix One: Responses from the Ministry of Agriculture, Livestock and Fisheries (MALF)

A: Overall Responses

The report is very professional and observed findings/recommendation are in line with suggestions made following inspections carried out by the Ministry in collaboration with other stakeholders

B: Specific Responses

No	Recommendation	MALFD's Comment(s)	Action(s) to be taken	Timeline (Financial year)
1.	Develop effective mechanism for enforcing the adherence of registration checklist during and after registration.	Standards often deteriorate after registration	<ol style="list-style-type: none"> 1. Develop awareness and training programme to ensure adherence with standards during and after registration 2. Sensitize LGAs to sub-contract management of their slaughter facilities to private sector to avoid current conflict of interest whereby the inspector is both the regulator and owner of the facility. 3. Conduct annual inspections to ensure adherence. 	2017/18-2018/19
2.	Develop slaughter facility registration checklist for each type of slaughter facilities with conditions that does not give room for registration of unqualified slaughter facilities	Current checklists based on total marks scored give room for registration of unqualified facility so long as it scored fifty five percent and above	<ol style="list-style-type: none"> 1. Emphasize on total compliance rather than total marks scored. 2. Ensure compliance with other relevant legislations governing slaughter facilities for example NEMC EIA Certificate 	2017/18-2018/19
3.	Develop System for ensuring and facilitating effective meat inspection activities.	In agreement that current system is less	<ol style="list-style-type: none"> 1. Ensure facility owners improve infrastructures to 	2017/18-2018/19

No	Recommendation	MALFD's Comment(s)	Action(s) to be taken	Timeline (Financial year)
		effective	<p>support effective inspection.</p> <ol style="list-style-type: none"> 2. Collaborate with Veterinary Council to ensure inspection is done by qualified inspectors. 3. Monitor throughputs to ensure number of meat inspectors correspond with workload. 4. Develop standards operating procedures for slaughter facilities to ensure among others -proper record keeping. 5. Review of legislation to enhance enforcement. 6. Share report with policy makers to enhance budgetary allocation for inspection activities at various levels. 	
4.	Establish performance measurement framework of hygiene practices in meat production process in the country	More emphasis has been on disease monitoring	Develop M&E indicators for hygiene and inspection	2017/18-2018/19

Appendix Two: Response from the President's - Office Regional Administration and Local Government (PO-RALG)

A: Overall Responses

PO-RALG considers the recommendation given as genuine since not only they are of sector development interest but also of National economic interest. Actions hereunder recommended are within the mandate of PO-RALG and thus will be undertaken as agreed

B: Specific Responses

No.	Recommendation	PO-RALG Comment(s)	Action(s) to be taken	Timeline Financial Year(s)
1.	Strengthen mechanism for enforcing the owners of the slaughter facilities to construct slaughter facilities that comply with the standards and regularly maintain them in good hygiene conditions	Agreed on the recommendation	PO-RALG will collaborate with the Technical Ministry in strengthening the mechanism for enforcing the owners of the facilities to construct slaughter facilities that comply with the standards and regularly maintain them in good hygiene conditions.	2016/17-2018/19
2	LGAs conduct efficiency inspection of hygiene condition of slaughter facilities and report the inspection to all levels of administration i.e. National, Regional and Council.	Agreed on the recommendation	PO-RALG will issue directives to LGAs to ensure that inspections of hygiene condition of slaughter facilities are efficiently conducted. However, the technical ministry will be consulted to improve on the current online reporting tools (Agricultural Routine Data System) so that the required slaughter facilities reports are incorporated in the format as deemed technically possible.	2016/17-2017/18
3	Develop mechanism for operating public owner slaughter facilities that will enable LGAs to perform its supervisor and regulatory role	Agreed on the recommendation on the basis that, there is possibility for LGAs to	PO-RALG will issue instructions to LGAs to conduct thorough inspection of meat and slaughter facilities to ensure possible	2016/17-2017/18

No.	Recommendation	PO-RALG Comment(s)	Action(s) to be taken	Timeline Financial Year(s)
	effectively.	undertake their Supervisory and/or regulatory role under the conflict of interest environment as they are also owners of the slaughter facilities	maximum hygienic practices are undertaken by both Public and Private sector owners without biasness and avoid conflict interest in implementing their currently assigned supervisory and regulatory role.	
4	Availability of qualified staff in LGAs to handle the whole process of meat production in slaughter facilities and ensure that staffs are equitably allocated based on capacity of slaughter facilities	Agreed on the recommendation	PO-RALG will liaise with Technical Ministry so that, when permission is granted to recruit new staff, priority to be given to such strategic areas likes those with slaughter facilities slaughtering reasonable large number of animals per day. Technical Ministry will be consulted to guide the required number of staff as animals slaughter per slaughter facility. Reallocation of staff to such slaughter facilities will be the last option.	2016/17-2018/19
5	Improve reports and timely reporting of the hygiene in meat production process activities and ensure that Regional Secretariats submit performance reports of their councils on issues regarding hygiene of slaughter facilities and shared with MoHCDGEC and MALFD	Agreed on the recommendation	PO-RALG will collaborate with the Technical Ministry in improving the Agricultural Routine Data System by incorporating data and information on slaughter facilities. Timely reporting will be insisted to LGAs through Regional Secretariats so that the reports are shared with MoHCDGEC and MALF	2016/17-2017/18

Appendix Three: Responses from the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC)

A: Overall Responses

Meat Production Industry is one of Food Safety branch that is overseen by the MoHCDGEC and regulated by TFDA. For years, the industry has been affected by unavailability of policy, weak monitoring and coordination mechanism. The Ministry strives to improve monitoring through updating and roll out electronic reporting system country wide, finalize food safety policy and revive multi-sectoral steering and technical committee as a way to improve coordination.

B: Specific Responses

No.	Recommendation	MoHCDGEC Comment(s)	Action(s) to be taken	Timeline
1.	Establish mechanism that will enable regular inspection and ensure compliance with laws, regulations and standards of hygiene in meat production processes	TFDA, LGAs and RAS are required to submit inspection reports at quarterly basis	The newly developed electronic information system namely National Sanitation Management Information System (NS-MIS) will be updated to incorporate hygiene issues in meat production	July, 2016
2	Develop Food Safety Policy for harmonizing and streamlining the roles of different actors (MALFD, PO RALG and MoHCDGEC) in managing hygiene of meat production	The National Food Safety Policy was drafted and submitted to the Cabinet Secretariat for Approval. Cabinet Secretariat suggested the ministry to identify and work on gaps that were missing from the National Health Policy of 2007	Gaps have been identified and are being worked up on. Ministry in collaboration with TFDA will be working for the comments given by the Cabinet Secretariat.	July, 2016
3	Establish coordinating mechanism that will facilitate proper implementation of TFDA's activities	National Food Safety Steering Committee is not active and need to be	The Ministry in collaboration with collaboration with TFDA will update and revive the National	July, 2016

No.	Recommendation	MoHCDGEC Comment(s)	Action(s) to be taken	Timeline
		revived	Food Safety Steering membership and formulate multi sectoral Technical Working Groups on specific Food Safety issues so as to strengthen coordination and information exchange.	
4	Establish performance measurement framework of hygiene practices in meat production process	It is crucial to set goals, identify key indicators in order to track performance	The ministry will hold a stakeholders working sessions to develop effective performance measurement framework.	Sept, 2016

Appendix Four: Audit and Sub Audit Questions

- Audit Question 1** : To what extent does the meat production activities conducted in hygienic condition in order to ensure delivery of safe meat to the public?
- Sub-question 1.1* : *Are the Slaughter Facilities maintained in accordance to the hygienic Standards?*
- Sub-question 1.2* : *Do the slaughtering process carried out in hygienic conditions?*
- Audit Question 2** : Do the inspections activities in meat production activities are efficiently and effectively conducted by TFDA and LGAs?
- Sub-question 2.1* : *Do the inspections activities carried-out prior and after registration effectively addressing the problem of poor hygiene practices at slaughter facilities?*
- Sub-question 2.2* : *Are meat inspections conducted in efficient and effective manner in order to improve hygienic practices in meat production?*
- Sub-question 2.3* : *Are the results of the inspections properly communicated to relevant stakeholders for corrective actions in order to improve hygienic practices?*
- Sub-question 2.4* : *Are the inspection reports and recommendations adequately addressing problems of poor hygiene in meat production process?*
- Audit Question 3** : Do MALFD, PO RALG and MoHCDGEC monitor and evaluate the existing hygiene control systems in meat production process?
- Sub-question 3.1* : *Do the Ministries plan for monitoring and evaluation of hygiene control system of meat production process?*
- Sub-question 3.2* : *To what extent do the Ministries monitor and evaluate the performance of TFDA and LGAs in addressing unhygienic practices in meat production process?*
- Sub-question 3.3* : *Do the ministries evaluate the effectiveness of enforcement mechanism (guidelines, inspections activities & sanction) in addressing the hygienic problem in meat production process?*
- Sub-question 3.4* : *Do the ministries communicate the monitoring and evaluation results to relevant stakeholders for proper actions?*
- Sub-question 3.5* : *Do the ministries monitoring report adequately addressing unhygienic problems at meat production process?*
- Sub-question 3.6* : *To what extent are the monitoring recommendations addressing unhygienic practices in meat production process are implemented?*

**Appendix Five: Methodological Approaches used during the Audit
List of Document Reviewed and information obtained**

SN	Reviewed Document	Information Obtained
1	Implementation Reports	Extent of implementation status of the developed plans have been achieved
2	Inspection Checklist	Item to be assess during the inspection
3	Livestock Development Strategy	Developed strategy in livestock sector
4	Meat Export and Import Statistics	Meat import and export relationship
5	Meat Industry Strategic Plan	Developed strategy in meat industry sector
6	Meat Inspection Reports	Focus of inspection reports, recommendation issued and to whom the report is communicated
16	Medical Check-up Report	Health status informations for staff working in the slaughter facilities
7	Medium Term Expenditure Framework	Activities relate to hygiene control in meat production which has been budgeted
8	Meeting Resolutions	Commitment made during the stakeholder meeting
9	Ministry Performance Report	Implementation status of the plans activities
10	Monitoring & Evaluation Report	Focus of Monitoring and Evaluation, Identified challenges and action taken
11	Registered Stakeholders	Stakeholders in meat chain
12	Registration Certificates	Condition of registration issued
14	Status of Slaughter Facilities in the country	Condition of the slaughter facilities in operation
15	TFDA Inspection Report	Focus of inspection reports, recommendation issued and to whom the report is communicated

List of interviewed officials

Location	Officials interviewed	Reason(s)
MALF	Director of Veterinary Services	To get information about facilitation and monitoring hygiene in meat industry.
	Assistant Director of Trans-Boundaries Diseases	Information relating to the diseases transmission in the country.
	Meat and Abattoir Hygiene Coordinator	To obtain information about the hygiene control and inspection activities done in the abattoirs
	In-charges of Zonal Veterinary Office - Dodoma, Mwanza and Sumbawanga	To obtain information of monitoring of hygiene activities meat sector and promotion of public health carried out at zone level.
MEAT BOARD	Registrar	To obtain information of meat industry sector in the country including stakeholders in the industry and operation of slaughter facilities
PO RALG	Director of Sector Coordination	To obtain information about monitoring and evaluation of the performance of LGAs in delivering of safe meat to the public
	Assistant Director of Economic and Productive Unit	
	Head of Economic and Productive Unit	
	Senior Health Officer	To together information relating to the performance hygiene practices at LGAs
RAS	Head of Economic and Productive Unit	To obtain information on how do they monitor and advice the operation of livestock activities within the area of jurisdiction; and they coordination with MALF, MOHCDGEC, TFDA and other stakeholders were done at RS level.
	5 Regional Livestock Advisor Officers	
	Livestock Officer	
LGAs	4 Owners of Slaughtered	To get information on the way management and implement hygiene at slaughter facilities are done.
	5 In-charge of the Slaughter Facilities	To obtain information on the daily supervision of the slaughter facilities.
	5 Municipal Livestock and Fisheries Officer	To get information of the hygiene condition of the slaughter facilities within the area of jurisdiction, coordination with other

		stakeholders and reporting system in place
	3 Health Officers	To obtain information on the supervision of hygiene condition at slaughter facilities, medical check up and registration of meat carriers
	13 Meat Inspectors	To get information of the meat inspection practices in slaughter facilities
MOHCDGEC	Assistant Director - Environmental Health	To obtain information of monitor of hygiene activities in the country; and the way coordination with key stakeholders are done
	Public Health Officer	To find out the effectiveness of the guidelines and regulations issued on hygiene practises
TFDA	Principal Food Inspector	To obtain information on regarding the way enforcement of hygiene practices in the slaughter facilities, registration and inspection of the slaughter facilities and inspection of meat transportation are done.

LGAs and Slaughter Facilities Visited

LGAs	Name of Slaughter Facility
Ilala MC	Vingunguti
	Ukongu Madizini
Mwanza CC	Nyakato
Kinondoni MC	Lufaveso-Kimarasuka
Moshi MC	Moshi MC
	Kiborloni
Mbeya MC	Ilemi
	Uyole
Sumbawanga MC	Sumbawanga MC
Dodoma MC	Dodoma abattoir
Sumbawanga MC	Saafi
Kinondoni MC	Interchick

Appendix Six: Standard Meat Production Process

Number	Process - Step	Activities Performed
1.	Stock reception and handing	The inspectors make sure that animal receive is accompanied with animal movement permit animal origin.
2.	Ante mortem examination	<p>Always conducted 24 hours before slaughtering of animal the Inspector makes sure that:-</p> <ul style="list-style-type: none"> ✓ All animals presented for slaughter are subjected to ante-mortem inspection and all records are properly recorded and kept; ✓ All animals presented as being unsafe or unsuitable for human consumption; ✓ No animal is slaughtered in the facilities unless it has been inspected and approved as suitable for consumption. ✓ Through information in the Animal movement permit inspector makes, sure that animal has not treated with antibiotic or chemo-therapeutics within the last 6 days. ✓ In the event of suspicious trade limiting diseases on ante mortem inspection, the animal are held in isolation, laboratory samples are collected for confirmation and appropriate and diseases specific disposal and decontamination measures are applied. ✓ Ante-mortem judgment categories include the following: <ul style="list-style-type: none"> ➤ Passed for slaughter ➤ Passed for slaughter subject to a second ante-mortem inspection, after an additional holding period ➤ Passed for slaughter under special conditions i.e deferred slaughter as "suspects", where the meat inspector undertaking ante-mortem inspection suspects that post-mortem inspection finding could result in partial or total

Number	Process - Step	Activities Performed
		<p>condemnation.</p> <ul style="list-style-type: none"> ➤ Condemned for public health reasons ➤ Condemned for meat unsuitability reasons. ➤ Emergency slaughter, when an animal eligible for being passé under special condition could deteriorate if there was a delay in slaughter. ➤ Condemned for animal health reasons.
3.	Moving livestock to the slaughter hall	<p>The inspector makes sure that</p> <ul style="list-style-type: none"> ✓ Each animal is slaughter within 24 hours following ante mortem procedure. ✓ Animal are denied access to feed 8 hours before slaughter but with as lib access to drinking water.
4.	Stunning	<p>An Animal needs to be stunned before slaughtering in order to avoid unnecessary suffering to the animal and comply with animal welfare act (CAP 154) and halal slaughter.</p>
5.	Slaughter/bleeding	<ul style="list-style-type: none"> ✓ Operators are using chain to shackle the left hind leg and the animal is hoisted upward to the over head rail using hoisting block to keep the animal hanging; ✓ Stunning and bleeding operations of each animal are completed within not more than 20 seconds; ✓ Operators (Shekh approved by Baraza la waislam) are applying correct incisions when slaughter/bleeding an animal, and the head is directed to QIBRAH when applying incision; ✓ Knives are sharp, two knife stems are in use and sterilizer temperature records are available at all times; ✓ No animal is slaughtered in the sight of any other animal awaiting slaughter; and ✓ Halal slaughter is applied as per the following procedures.
6.	Esophagus rodding	<p>The esophagus of slaughtered animals is</p>

Number	Process - Step	Activities Performed
	and tying	effectively closed using rubber band.
7.	Head removal	<ul style="list-style-type: none"> ✓ The heads are removed in such a manner to avoid soiling them with rumen contents (This is usually accomplished by tying esophagus and then pulling the head sharply to the side as the throat is cut. ✓ Make sure that the head skinner cleans and disinfects his knife as at least once at the beginning of the process for each animal. ✓ That the washing of heads is done in compartments or area that will control the splash of wastewater to prevent contamination of other heads or adjacent carcasses. ✓ That the oral and both nasal cavities are thoroughly flushed before washing the outer surfaces of each head, and each head is also free of all hair and other contamination prior to inspection.
8.	Ripping	<ul style="list-style-type: none"> ✓ The front and hind feet are removed before any other incision is made in the carcass. ✓ Knives are rinsed clean after ripping and before proceeding to the next operations. ✓ The skin is cut from inside out to prevent carcass contamination with hair and dirt. ✓ Incision is made around the hock joint, then from the hock to under/scrotum (on both right and left side) ✓ Incision is made around the knee joint, then from the knee to the sternum (on both right and left side) ✓ Incision is made on the ventral aspect of the animal from the neck along the alba line to the tail/anus.
9.	Feet removal	<ul style="list-style-type: none"> ✓ Feet removal is done using knife at the distal aspect of the hock and knee joint for the hind and fore legs respectively; and ✓ Feet and legs are presented for post

Number	Process - Step	Activities Performed
		mortem inspection with the corresponding carcass.
10.	Pizzle (penis) removal	Removal of the Pizzle (penis) is accomplished in a manner that precludes urine contamination of the carcass.
11.	Bubg (rectum) dropping	<ul style="list-style-type: none"> ✓ The rectum is loosen by deep cut around the rectum and tied using rubber band to protect fecal contamination and forced inside the abdominal cavity; and ✓ Feecal matter is not escaping and contaminating the carcass.
12.	Skinning and hide removal	<ul style="list-style-type: none"> ✓ Operators positioned at different stands with various heights so that each skin that part of the hide of the hanged carcass at that height level; ✓ The hide is removed in such a way that its outer surface rolls away from the carcass. ✓ The hide is completely removed before the carcass is eviscerated; ✓ Precautions are taken to prevent contamination any meat of the carcass; and ✓ Carcasses are sufficiently far apart from each other to prevent contamination from skinned parts of adjacent carcasses.
13.	Evisceration	<p style="text-align: center;">The inspector ensure that</p> <ul style="list-style-type: none"> ✓ Evisceration is performed when a carcass is hanging over the green offal convey belt so that they droop on that convey when are fully detached from carcass and move direct to the green offal room; ✓ Any contaminated part is trimmed off from the middle before opening the abdominal cavity; ✓ Hands are washed regularly during the evisceration process; ✓ Organs in the carcass are not separated during evisceration; ✓ Contaminated footwear, apron, or knife is be thoroughly cleaned and

Number	Process - Step	Activities Performed
		<p>disinfected; and</p> <ul style="list-style-type: none"> ✓ The saw or other instruments used to split the brisket is disinfected after each use(as there is no way of knowing if abscesses or other pathological conditions are prevented in thoracic cavity).
14.	Carcass splitting,	<ul style="list-style-type: none"> ✓ Prior to splitting all contamination, bruises greats and issue damaged by grubs are removed from the midlives are of the back in order to prevent spreading of such contamination to bone and other surface by the saw or cleaver; and ✓ Disinfection of the carcass splitting equipment is done after each use.
15.	Carcass trimming	<ul style="list-style-type: none"> ✓ Trimming is carried out before and after inspection; ✓ All visible fecal contamination, hair, blood clots pieces of bride. flecks of mil other dust, and stain are removed as soon as possible after they occur to prevent microbial amassment; and ✓ Carcass re-trimming is done after inspector if there is still a need of removing any remounts of stick wounds any residual pieces of hide, blood clots, traised tissue and combination before washing.
16.	Meat inspection	<p>The inspector makes sure that</p> <ul style="list-style-type: none"> ✓ During presentation for inspector, the identity of the head viscera and carcass are maintained. ✓ Abattoir employees convey condemned carcasses and part to condemned products room only. ✓ No condemned head, carcass or viscera are left awaiting disposal during work breaks. ✓ No direction reversal of condemned meat products to theproducts section takes place. ✓ Proper inspection of non-edible parts of animals is carried out so that it can play an indicator role in the judgment

Number	Process - Step	Activities Performed
		<p>of edible parts.</p> <ul style="list-style-type: none"> ✓ Other organoleptic inspection procedures are applied when inspecting meat e.g. smell, touch etc. ✓ Carcasses that are normal are marked with a "passed" stamp as fit for human consumption. ✓ s/he conducts secondary meat inspection on all suspicious carcasses which are marked as "detained" ✓ no carcasses, meat or viscera of meat has been inspected in an abattoir area and passed, is brought back into any other areas of the abattoir. ✓ When s/he thinks that a carcasses or meat has been contaminated by contact with any disease, diseased material, ingesta or faecal matter during dressing inspector, it is condemned or properly excised. ✓ No offal viscera should be removed from the viscera table until inspection is complete. ✓ No person removes any serous membrane from any carcass, or removes, modifies, or obliterates any evidence of disease or defect in any carcass by washing, scraping, stripping, or in any other manner before examination. ✓ When making a post-mortem inspection of a carcass, meat or viscera, she/he is at all times taking care to avoid any unnecessary soiling, contamination, or mutilation.
17.	Carcass washing	<ul style="list-style-type: none"> ✓ After postmortem inspection and re-trimming, all carcasses are washed to remove blood and bone dust. For about 30-60 seconds; and ✓ Washing is sufficient to ensure complete removal of hair and other foreign material.
18.	Carcass dripping	After washing, carcasses are hanged for about 30 minutes until the water is dripped out of carcass so that stamping can easily

Number	Process - Step	Activities Performed
19.	Chilling	<p>done</p> <ul style="list-style-type: none"> ✓ As soon as the dressing operations are completed, carcasses, sides or quarters, are moved to an initial cooling room with a temperature of +2°C to 10°C (3°C for offals) and the mean air speed at a level above 0.75 m/s to be kept for the first 24 hours to allow carcass maturation; ✓ After 24 hrs of initial cooling, carcasses are transferred for storage at a temperature of 2 to 2.c and mean air speed over the product above 0.5/m/s with relative humidity below 95% or below 90% if the product is to be stored for more than 72 hrs; ✓ For the storage of offal, the temperature is maintained below 2₀C or, if to be stored for more than 72 hours and below -10₀ C; ✓ Offals such as stomach, intestine, lungs, spleen, head and feet should be held in a separate chamber and speed out to all for more effective cold action but offals such as liver. Kidney and heart can be given the same cooling treatment as the round; ✓ All carcasses begin chilling within 1 hour from bleed-out and all variety meats need to begin chilling within 1 hour after removal from carcass; and ✓ To prevent cross contamination and to allow efficient air circulation. Cooler storage rails are at least 60 cm from refrigeration equipment, walls, columns, and other.
20.	Freezing	<p>The inspector makes sure that,</p> <ul style="list-style-type: none"> ✓ As soon as the dressing operations are completed, carcasses, sides or quarters, are moved to a room with temperature of +20C to 10⁰C and the mean air speed at a level above 0.75 m/s and kept for the first 24 hours. ✓ For the storage of offal for more than 72 hours, the temperature is

Number	Process - Step	Activities Performed
		<p data-bbox="628 159 946 192">maintained below-10°C.</p> <ul style="list-style-type: none"> <li data-bbox="581 196 1166 291">✓ Carcasses are not touching each other and drips from one piece to the other are avoided. <li data-bbox="581 295 1166 363">✓ Carcasses of different species are not occupying the same area. <li data-bbox="581 367 1166 462">✓ Doors are not left open for extended periods, and are closed immediately after use. <li data-bbox="581 466 1166 561">✓ Entry to this room is restricted only to personnel required to carry out the operations. <li data-bbox="581 565 1166 672">✓ Chilling room or freezing rooms of freezer store are not loaded beyond their designed capacity

Appendix Seven: Roles of Various Key Players and Stakeholders in Each Stage of Meat Production Process

Processes	Roles of Stakeholders						
	MALF	PO RALG	LGAs	MoHCDGEC	TFDA	Meat Board	Owners of Facility
Raising animals	Monitor the control of animal diseases from origin	Monitor the performance of LGAs in controlling of animal diseases from origin	Facilitate livestock producer through training and services	–	–	To collect, process, and disseminate information purpose of assisting raising of animals.	–
Inspection (Animal)	Issue regulations and guidelines used for meat inspections; and Facilitate and monitor animal inspections.	Monitor the performance of LGAs in animals inspections	Manage the inspection of animals;	Monitor the performance of TFDA and LGAs in enforcing the hygiene practices at inspection area	Enforce the environment used in inspection are free from contamination	–	Provide conducive environment for animals inspections
Slaughtering	Issue guidelines for slaughtering; and monitor the slaughtering activities.	Monitor the performance of LGAs in slaughtering activities	Manage the slaughtering activities, facilities, infrastructure and environment	Monitor the performance of TFDA and LGAs in enforcing the hygiene practices in slaughtering process	Enforce the hygiene practices in slaughtering process	Promotion of adherence of hygienic practices in Meat production process	To provide slaughtering facilities, infrastructures and environment which are free from infections
Inspection (Meat)	Issue guidelines for meat inspections; and monitor the meat inspections activities.	Monitor the performance of LGAs in meat inspections	Manage inspections activities	Monitor the performance of TFDA and LGAs in enforcing the hygiene practices during meat inspections.	Enforce the hygiene practices during meat inspections	–	To provide meat inspections facilities, infrastructures and environment which are free from infections
Handling and Transportation	Monitor meat handling and transportation in collaboration with MoHCDGEC	Monitor the performance of LGAs in managing meat handling and transportation	Manage handling and transportation of meat.	Monitor the performance of TFDA and LGAs in enforcing the hygiene practices in handling and transportation of meat.	Enforce the hygiene practices in handling and transportation of meat.	–	To provide conducive environment for the temporary storage of meat.

Source: Auditor's Analysis, 2015

