

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS INFORMATION AND ECONOMICS SCIENCES,
SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION
DEPARTMENT OF PUBLIC ADMINISTRATION AND MANAGEMENT

ASSESSMENT OF OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT
SYSTEM IN SOME FEDERAL GOVERNMENT ORGANIZATIONS

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR MASTERS DEGREE IN PUBLIC ADMINISTRATION AND DEVELOPMENT
MANAGEMENT

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ABBREVIATIONS

OSH: Occupational Safety and Health
OSHMS: Occupational Safety and Health Management System
MOLSA: Ministry of Labour and Social Affairs
FCSA: Federal Civil Service Agency
FDRE: Federal Democratic Republic of Ethiopia
MCS: Ministry of Civil Service

ABSTRACTS

Background: Annually, throughout the world, an estimated 271 million people suffer from work related injuries, and 2 million die from the injury. In recent years, in developed countries the occupational health and safety of workers has improved but it is not true in developing countries. Ethiopia is categorized among under developed countries and do not have much data on health and safety. But assessment made by the Federal Civil Service Agency describes in 2000 E.C. that 14 males and 8 females died, 7 males and 8 females discharged from work due to disability and 6 males and 27 females' transfers to other jobs due to various work place.

Objective: The objective of the study was to assess the Occupational Safety and Health Management System (OSHMS) in fifty five Federal Government Organizations who higher Occupational Safety and Health experts.

Methodology: An analytical research method was used to conduct the study in the selected organizations because facts or information are already available, and analyze these to a critical evaluation of the material. A total of 258 study subjects were randomly selected from fifty organizations according to their civil servants number proportions and fifty five Occupational Safety and Health (OSH) experts were directly selected from their respective organizations. The data was collected using the questionnaires A, and B. Questionnaire A was filled by OSH experts, questionnaire B filled by civil servants where as interviews were made with some officials in the former Federal Civil Service Agency and five Heads ,of Human Resource Managers of the surveyed organizations. Both questionnaire were pre-tested for their accuracy and validation prior to the actual study and the necessary adjustments were done accordingly. The data were entered after being encoded and analyzed using frequencies percentages.

Results: The existence of Occupational hazards and disease are Physical (17.11%), Chemical(16.49%), Biological(22.92%), Ergonomic(24.58%) and Psychological(18.87%). On the other hand degree of effectiveness Occupational Safety and Health Management System (OSHMS) in fifty five Federal Government.

The finding was that most of the experts described that Occupational Safety and Health Management System (OSHMS) in the surveyed organizations did not effectively implement.

The major challenges are lack of awareness of top and middle level managements and civil servants, insufficient or lack of budgetary support; failure to customizes OSHMS to organizational needs; weak management commitment; lack of integration with general management functions and systems and restricting OSH functions to OSH experts

Findings/Results The response of most civil servants also shows that they are not aware about the practice or implementation of Occupational Safety and Health Management System (OSHMS) in their organizations . They described work injuries occurred in the past 12 months were broken bones /fracture 10%, concussion/ internal injuries14.78%, burns/scalds5.21%, eye injury/ eye strain22.17%, asphyxia /lack of oxygen18.69%, sprain, strain, dislocation6.08%, electric shock5.65%, acute poisoning exposure to toxic8.26% and others 9.13%. Out of total respondents 10(3.90%) receive, 223(87.10%) did not receive medical treatment while 23(8.98%) cannot say any. Absentees from work in the same period was 12(8.00%) less than 2, 23(15.33%) 2-4, 11(7.33%) 4-6,40(26.66%) 6-8, 39(26.00%) 25 and (16.66%) greater than 10 days.

The result of interviews with Heads, of Human Resource Management also indicates that the application of Occupational Safety and Health Management System (OSHMS) with general management practice was not employed in their organizations.

Conclusions and recommendations: Some occupational hazards were indentified in the surveyed organizations. Besides effective Occupational Safety and Health Management System (OSHMS) is not in place in the surveyed organizations as conclusion. Recommendations were implementation of occupational safety and health according to proclamation No 515/2006 Article 47-56. In addition to this commitment of management to a successful OSHMS in the work place, allocate sufficient resources (financial and human) for the proper functioning of occupational safety and health program.

Chapter one

Introduction

1.1 Background of the study

J.M. Stallman (1998) said development and industrialization have made immense positive contributions to health, social wealth and improved education service. However, industrialization has also had adverse health consequences on work places. These effects have been caused either directly by exposure to safety hazards and harmful agents or indirectly through environmental degradation.

The British Health and Safety at Work Act 1974 makes provision for the health, safety and welfare of all people at work and for the controlled use of dangerous substances and emissions (Elizabeth II, 1974). The Act places on the whole community a responsibility for caring, and the co-operation of all in creating safer working environment. Barry Solely and David H.(1995) also expressed that there is a responsibility on all employers to arrange adequate instruction, training and supervision; and to lay down a safety policy and to tell their employees about it. The prime responsibility for the health and safety of workers in their employment rests with employers, who should provide and maintain proper working environments.

The International Labor Office (ILO) estimates that every year there are some 125 million work related accidents, 220000 of them fatal. According to WHO, 160 million new cases of occupational diseases are caused annually by exposure and dangerous conditions at the work place; 30-40% of them can be expected to lead to chronic diseases and about 10% are likely to result in permanent disability

(Igor,1998).

According to John B.Kachuba every nine minutes, some one is killed by their job. In 1994 employers reported 6.3 million disabling work injuries and 515000 cases of occupational diseases. WHO described in 1994 annually, throughout the world, an estimated 271 million people suffer from work related injuries, and 2 million die from these injuries. Occupational hazards and disease create excessive emotional disturbances on the worker; much mental anguish results from fear of no longer being self-sufficient and /or to the society. More over occupational hazards and diseases affect the life of injured or sick family or dependent on social and economic

aspects. The income of the family may be reduced and consequently there are social disturbances among the family (French , 1987).

In recent years, in developed countries, on the whole the occupational health and safety of the population has improved, and the situation can be described as relatively satisfactory. The same, however, cannot be said for the developing countries, in many of which occupational health receives little attention and comes low on the list of national priorities (W.O.Phoon1983).

It is assumed to be similar for Ethiopia, due to the above same reasons. The rationale of the study is that, Ethiopia is one of the countries in which industries and government organization services are growing up and at the same time information, concerning on occupational safety to workers is minimal, as well work related injuries are likely to rise among workers with less information.

1.2 Statement of problems

In Ethiopia the number of civil servants are growing from time to time since the inception of modern establishment of modern government. According to the Federal Civil Service Agency's annual personnel statistics of 2008 the total number of civil servants in the country reached 550,314 (0.733% of 74 million population of the country) of these civil servants 499,398 are working in regions, and the rest 60,911 are in federal government organizations.

To enforce prevention of occupational hazards and disease in federal government organizations the government of Federal Democratic Republic of Ethiopia issued about occupational safety and health rules in proclamation 515/2006 (Article 47-56).

Based on this proclamation preliminary assessment of occupational safety and health study conducted in 2000 E.C. by the Federal Civil Service Agency in thirty six government organizations which had about 25,000 civil servants. The result of assessment shows 14 males and 8 females died, 7 males and 8 females discharged from work due to disability and 6 males and 27 females transfers to other jobs due to various work place hazards. The First quarter report of the Federal Civil Agency of 2001 E.C states that seventy three types of small, medium and heavy occupational hazards and disease were occurred in 35 government organizations. The amount paid for medical expenses to these occupational injuries and diseases was a total Birr 13,626.89. Lost work days due to occupational hazards and disease incurred during these times was 574. The report also indicated the death of two civil servants workers due to occupational

hazards and diseases. Therefore, one can realize that work places in federal government organizations had various types of occupational hazards and diseases.

Therefore, this study is intended to assess the effectiveness of Occupational Safety and Health Management system (OSHM) in 55 organizations by raising the following research questions.

They are:-

1. How and on what levels government organizations perform the responsibility vested by proclamation 515/2006(Article 48, sub Article and Article 53 1 sub Article 1)?
2. What is the level of civil servants participation according to proclamation 515/ 2006 (Article 48 sub Article 2)?
3. Does the Federal Civil Service Agency or the current Ministry of Civil Servant conduct any OSH inspections in government organizations according to proclamation 515/2006(Article 48 sub Article 3)?
2. What is the level of attention and commitment of employers of government organizations to implement OHS management system in their respective organizations?
3. What occupational hazards and illness exist in government organizations and what are their causes?
4. Are any efforts made by organizations to increase the awareness level of civil servants on occupational safety and health?
5. Does organizations allocate sufficient resources to adopt and promote occupational health and safety?

1.3 Objective of the study

The general objective of the study is to assess Occupational Safety and Health Management System in government organizations who higher OSH experts. In meeting the above general objective the study will focus on the following specific objectives.

They are to :-

1. Identify some occupational hazards and diseases,
2. Assess the level of implementation of occupational health and safety management system.
3. Identify the challenging situations that may hinder the effective implementation of occupational health and safety management system,
4. Come up with some findings, summaries and conclusions regarding the situation of occupational health and safety in government organizations,
5. Provide recommendations by referring to the findings.

1.4 Significance of the study

It is obvious that quality service delivery could be provided in place of safe working environment. Safe working can exist in place proper application of Occupational Safety and Health (OSHMS).

This study will therefore will be significant in

- A. Recommending government organizations the need of Occupational Safety and Health (OSHMS) to prevent occupational hazards and diseases.
- B. Serving as important references by adding value to existing literature on Occupational Safety and Health and assist the teaching learning process in development related discipline.
- C. Initiating researchers and government organizations to conduct further research and comprehensive studies in the area.
- D. Serving as partial fulfillment for the requirement of obtaining masters degree in public administration.

1.5 Methodology

An analytical research method has been carried out because, facts or information are already available in the selected organizations. Data were collected using Primary and secondary

sources. Primary data was obtained through questionnaires and discussion (interviews). Secondary data was collected by reviewing documents such as books, journals and magazines referring to relevant publishes, and unpublished materials related occupational safety and health practices in general, directives and documents from archives of Civil Service Agency, occupational safety and health proclamations, regulations and policy, reports and guidelines of International Labour Organizations (ILO) and World Health Organizations (WHO).

Information obtained from the secondary and primary sources were systematically compared and analyzed. Views and opinions of discussion (interviews) were presented and analyzed with respect to the concepts and theories of occupational safety and health. Summary of the application, types, levels and status of occupational health and safety of government organizations were written as major findings and relevant recommendations was drawn.

1.5.1 Data collection method

The primary data from OSH experts and civil servants were collected through three data collectors. The data collectors were trained for five days on research instruments and general concepts of occupational safety and health management system and occupational hazards and illness.

Prior to distributing questionnaires to respondent's questionnaire A and B were prepared in English language. Questionnaire A was for OSH experts and questionnaire B was for sample respondents of civil servants. Questionnaire B was translated into Amharic (one of the local language) because almost all civil servants in organizations could not comprehend to English.

Questionnaire A was distributed to 55 OSH experts found in each organizations and 258 questionnaires B were also distributed to sample civil servants. However 55 OSH experts and 230 civil servants responded to the questionnaires. Therefore the response rate of experts was 100 % while for sample civil servants the response rate was 89.14 %. The name of sample organizations taken for the study described on Annex IV.

1.5.2 Method of analysis

The data collected were analyzed using relevant statistical methods. The statistical methods utilized were frequencies, ratios, and percentages etc. and presented and interpreted using figure, tables and discussions.

1.5.3 Sample design and procedures

A two stage sample design procedure was adapted in this study. The first stage was the selection of government organization, and the second stage was the selection of sample civil servants from these organizations. Occupational Safety and Health professionals working in organizations are directly taken without using sample determination due to the fact that they have direct work relationships to the assessment of occupational safety and health management system. The sample size of the civil servants was taken using simple random selection techniques.

1.6 Scope and limitations of the study

1.6.1 Scope

Since the study mainly aims to assessing the situation of occupational health and safety in government organizations the scope of the study is limited to only those 55 federal government organizations who recently recruited occupational safety and health experts.

1.6.2 Limitations

The methods of data collection were questionnaires and interviews and secondary sources. To obtain sufficient data through these tools needs strong willingness and cooperation from OSH experts, civil servant, officials of former Federal Civil Service Agency or Ministry of Civil Servants and Heads, of Human Resource Managers. The interviews may lack sufficient time to be interviewed and also one of the challenges for the researcher, which may to some extent affect comparativeness of the study.

1.7 Chapterization of the study

The thesis consists of five chapters: Chapter One is on Introduction i.e. the proposal itself, Chapter Two is on Review of Literature, Chapter Three is on Research Methods, Chapter Four is on Data presentation and Analysis, and Chapter Five is on Conclusions and Recommendations. A list of references follows Chapter Five. Thesis also contains other formal documents such as Acknowledgements, Abstract, Annexes, etc.

Chapter Two

Review of Literature

2.1 What is occupational health and safety?

Occupational Safety and health encompasses the social, mental and physical well-being of workers in all occupations. Poor working conditions have the potential to affect a worker's safety and health. Unhealthy or unsafe working conditions can be found anywhere, whether the workplace is indoors or outdoors.

R.K.jain and Sunil S. Rao (2007) defined Occupational Safety and Health is concerned with well-being of all employees and persons in a plant/ factory/workplace and accordingly deals with conditions and factors that have bearing on health and safety.

2.2 Why is occupational health and safety important?

Work plays a central role in people's lives, since most workers spend at least eight hours a day in the workplace, whether it is on a plantation, in a n office, factory, etc. Therefore, work environments should be safe and healthy. Yet this is not the case for many workers. Every day workers all over the world face with a multitude of health hazards, such as: dusts, gases, noise, vibration and extreme temperatures.

Unfortunately some employers assume little responsibility for the protection of workers' health and safety. In fact, some employers do not even know that they have the moral and often legal responsibility to protect workers. As a result of the hazards and a lack of attention given to health and safety, work-related accidents and diseases are common in all parts of the world. Due to these and other facts the need of occupational safety and health and its implementation at work place is indispensable.

2.3 Classification of Occupational Hazards and diseases

The various workplace hazards, diseases and stresses that may cause sickness, impaired health, or significant discomfort or inefficiency in workplaces may be classified in many ways. Occupational Safety and Health Training Manual prepared by Ministry of Labour and Social Affairs (MOLSA) classified hazards, diseases and stresses as chemical, physical, biological, ergonomics and psychological or social hazards. The detail description stated in the manual is presented below.

2.3.1 Chemical hazards

Chemicals make up the majority of workplace health hazards. They include many naturally occurring substances such as minerals, coal, cotton as well as the simple and complex manufactured chemical products. Chemical contaminants arise through direct use or as by-product contaminants. Chemical hazards can appear as:- Dusts, Mists, Gases, Fumes and Vapors-

2.3.2 Physical hazards

All workers encounter some agents of physical environment which have potential to present health hazards at work. These hazards include:- Noise, Vibration, Light, Heat, Cold & Radiation,

2.3.3 Biological hazards

Some workers are subject to specific health hazards relating to the nature of their work with biological materials or from working in environments where micro-organisms may abound. These hazards may be related to existence of animals or plant materials or sometimes the treatments of sick persons. Biological hazards exist more widely and affect members of the general working community. Following are some biological hazards at work place: Bacterial, Fungi Allergenic agents and Viruses (Hepatitis B, HIV AIDS). These are presented by exposure to infectious microorganisms, to toxic substances of biological origin or animal attacks.

2.3.4 Ergonomic Hazards

Ergonomic (human engineering) is a way of thinking and planning work so that it is organized to suit the abilities and needs of the people doing it. People are of different heights, they are built differently, and some people are stronger than others. Their ability to withstand physical or mental stress varies. These basic facts cannot be changed. It is these facts that are used as a basis for planning jobs and for planning the working conditions. Despite progress in technology, there is still a lot to be done before machinery and equipment are designed for use by people. As a result of poor design, people often suffer from lower back pain and injury to muscles and joints. Visual problems are increasing with the widespread use of various display units and work inspection. These are among the most common health problems in working life. Ergonomic (human engineering) Hazards may occur due to the following working conditions:-

Working positions- e.g. standing, sitting, visual conditions, strenuous work, controls and tools, signals and panels.

2.3.5 Psychological or Social hazards

Employment is intermittent and constantly changing and control over many aspects of employment is limited because many factors over which workers have no control, such as the state of an economy or the weather. Because of the same factors, there can be intense pressure to become more productive. Since the workforce is constantly changing, and with it the hours and location of work, and many projects require living in work campus away from home and family, workers may lack stable and dependable networks of social support. Features of work such as heavy workload, limited control and limited social support are the very factors associated with increased psychological or social stress and hazards.

2.4 Prevention of occupational hazards and diseases

Benjamin O Alli described the protection of workers from occupational hazards and diseases are primarily a management responsibility on par with other managerial tasks. The system for managing safety and health should be integrated within the organizations business culture and processes. In order to achieve the objective of safe and healthy working conditions and environments, effective occupational safety and health management system is important. The

employer should show strong leadership and commitment to OSH activities in the organization, and make appropriate arrangements for the establishment of an Occupational Safety and Health management system (OSHMS).

2.5 Occupational safety and health Management System (OSHMS)

Occupational Safety and Health management system is applicable to any organization that wishes to establish safe working conditions.

Occupational Health and Safety Management Systems (OSHMS) have been defined by (Gallagher, 2000: 1) as "...a combination of the planning and review, the management organizational arrangements, the consultative arrangements, and the specific program elements that work together in an integrated way to improve health and safety performance".

Bottomley (1999:2) also noted that Occupational Health and Safety Management System is the deliberate linking and sequencing of processes to achieve specific objectives and to create a repeatable and identifiable way of managing Occupational Safety and Health (OHS).

Jain and Sunil S.Rao (2007,15) described that Occupational Health and Safety management enable an organization to control its Occupational Health and Safety risks and improve its performance.

Occupational Safety and Health management system (OSHMS) is an integral part of the overall management system of the organization. It facilitates the management of the OSH risks associated with the business of the organization.

This includes the organization's structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the organization's OSH policy.

The ILO Occupational Safety and Health management system (OSHMS) Guidelines (ILO-OSH 2001) encourage the integration of (OSHMS) with other management system and state that OSH should be an integral part of business management. While integration is desirable, flexible arrangements are required depending on the size and type of operation. Ensuring good OSH

performance is more important than formality of integration. ILO emphasizes that OSH should be a line or staff management responsibility at the organization.

The Guidelines stress that the OSH management systems in the organization has the following main sections. These sections are namely Policy, Organizational structure, Planning and implementation, Workers participation, Employee training and monitoring and Evaluation.

2.5.1 Occupational Safety and Health Policy

International Labor Office(ILO-2001)Guide lines on occupational safety and health management system states that the employer, in consultation with workers and their representatives, should set out in writing an OSH policy, which should be:

- (a) Specific to the organization and appropriate to its size and the nature of its activities;
- (b) Concise, clearly written, dated and made effective by the signature or endorsement of the employer or the most senior accountable person in the organization;
- (c) Communicated and readily accessible to all persons at their place of work;
- (d) Reviewed for continuing suitability; and
- (e) Made available to relevant external interested parties, as appropriate.

The guideline further states that OSH policy should include, as a minimum, the following key principles and objectives to which the organization is committed:

- (a) protecting the safety and health of all members of the organization by preventing work-related injuries, ill health, diseases and incidents;
- (b) complying with relevant OSH national laws and regulations, voluntary programmes, collective agreements on OSH and other requirements to which the organization subscribes;
- (c) ensuring that workers and their representatives are consulted and encouraged to participate actively in all elements of the OSH management system; and
- (d) continually improving the performance of the OSH management system.

Requirements of the safety and health policy reflect the workers and management commitment towards good organization's safety and health. Policy contains the elements of OSH policy and

worker participation. It is the basis of the OSH management system as it sets the direction for the organization to follow.

2.5.2 Organizational Structure

ILO Guidelines state that the employer should have overall responsibility for the protection of workers' safety and health, and provide leadership for OSH activities in the organization.

The employer and senior management should allocate responsibility, accountability and authority for the development, implementation and performance of the OSH management system and the achievement of the relevant OSH objectives. Structures and processes should be established which:

- (a) ensure that OSH is a line-management responsibility which is known and accepted at all levels;
- (b) define and communicate to the members of the organization the responsibility, accountability and authority of persons who identify, evaluate or control OSH hazards and risks;
- (c) provide effective supervision, as necessary, to ensure the protection of workers' safety and health;
- (d) promote cooperation and communication among members of the organization, including workers and their representatives, to implement the elements of the organization's OSH management system;
- (e) fulfill the principles of OSH management systems contained in relevant national guidelines, tailored guidelines or voluntary programmes, as appropriate, to which the organization subscribes;

2.5.3 Planning and Implementation activities

The Guidelines states on Planning and Implementation activities as :-

- (a) Identify the current applicable national laws and regulations, national guidelines, tailored guidelines, voluntary programmes and other requirements to which the organization subscribes;
- (b) Identify, anticipate and assess hazards and risks to safety and health arising from the existing or proposed work environment and work organization; and
- (c) Determine whether planned or existing controls are adequate to eliminate hazards or control risks; and

(d) Analyses the data provided from workers' health surveillance.

2.5.4 Employee Participation and Consultation

ILO Guidelines describe on employee participation and consultation as:-

- a) workers participation is an essential element of the OSH management system in the organization.
- b) the employer should ensure that workers and their safety and health representatives are consulted, informed and trained on all aspects of OSH, including emergency arrangements, associated with their work.
- c) the employer should make arrangements for workers and their safety and health representatives to have the time and resources to participate actively in the processes of organizing, planning and implementation, evaluation and action for improvement of the OSH management system.
- d) the employer should ensure, as appropriate, the establishment and efficient functioning of a safety and health committee and the recognition of workers safety and health representatives, in accordance with national laws and practice.

2.5.5 Safety and Health Training

The Guidelines on occupational safety and health training states as :-

- a) cover all members of the organization, as appropriate;
- b) provide effective and timely initial and refresher training at appropriate intervals;
- c) include participants evaluation of their comprehension and retention of the training;
- d) be reviewed periodically and
- e) be documented as appropriate and according to the size and nature of activity of the organization.

2.5.6 Monitoring & Evaluation (Performance measures)

The guideline on monitoring and evaluation described as:-

- a) be used as a means of determining the extent to which OSH policy and objectives are being implemented and risks are controlled;
- b) feedback on OSH performance;
- c) information to determine whether the day-to-day arrangements for hazard and risk identification, prevention and control are in place and operating effectively and
- d) the bases for decisions about improvement in hazard identification and risk control, and the OSH management system.

2.6 Benefits of OSH Management System

Organizations devote considerable resources in protecting workers safety and ensuring healthy workplaces. For both business and financial reasons, many go beyond the minimum requirements set by occupational health and safety laws. OSH management system provides organizations with the framework to develop a solution to the increasing challenges facing them at the workplace today, from high injury and illness, lost work days, increasing occupational health and safety regulations, large citations/ penalties, rising worker's compensation costs, costly medical claims, worker retention and employee satisfaction (David, 2003).

He explained further that Organizations with effective OSH management system earn positive returns and benefits on their health and safety investment by:

- a. Operational cost savings through OSH management system.
- b. Reducing work-related accidents and ill health and the costs associated with them.
- c. Improving performance through heightened employee morale and adherence to policies and procedures.
- d. Increased control of regulator issue.

- e. Reinforcing a responsible and well-managed reputation with customers, stakeholders and communities.
- f. Clear demonstration of legal and regulatory compliance to regulatory authorities, customers and employees.
- g. Better management of health and safety risks on a planned and ongoing basis.
- h. Increased access to new customers and business partners through an improved corporate image.

2.7 Summary

Understanding the concept of the OSH management system will help us to understand the application of OSH management system in organizations and legislation needs to follow by them. The rules and legislation are always protecting the worker safety and ensuring healthy workplaces. The main purpose of the rules and legislation is to prevent accidents, ill health and injury at workplaces towards development of safety culture. Many organizations who have implemented OSH management system have reported benefited from increased operational efficiencies, reduction in lost workdays, fewer accidents and medical claims, recognition by insurers and regulators and improved worker's retention and satisfaction. Organizations with effective OSH management system earn positive returns and benefits on their health and safety investment.

2.8 Legislation and enforcement

Appropriate legislation and regulations, together with adequate means of enforcement, are essential for the protection of workers' health and safety. Legislation is the very foundation of social order and justice; without it, or where it is not enforced, the door is wide open to all forms of abuse. Each country should therefore take such measures as may be necessary to protect workers' health and safety. This could be by enacting laws or regulations, or any other method consistent with national conditions and practice and in consultation with the representative organizations of employers and workers concerned.

Because of the increasing complexity and hazardous nature of modern industrial operations, occupational safety and health Act of 1970 and Health and Safety at work Act 1974 was passed in USA and UK.

International Labour Organization (ILO) Convention No.155/198 obliges that ratifying countries in light of national conditions and practice and in consultation with social partners, formulate, implement and periodically review national policy on occupational safety and health and the working environment (ratified by Ethiopia in 1991). Other ILO conventions on OSH are the labour inspection conventions No 81/1947 and 129/69, the recommendation and Promotional convention for occupational safety and health No.187/2000 (ratified by Ethiopia in 1991).

Universal Declaration on Human Rights (UN, 1948) “Everyone has the right to life, to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment”.

2.8.1 Existing OSH Legislation in Ethiopia

The constitution of FDRE Article 42(2) employee have the right to reasonable limitations of working hours, to rest, leisure, to periodic leaves with pay, to remuneration, for republic holidays more importantly the right to be provided healthy and safe working environment.

Based on the provision of the constitution the Federal Civil Servant Proclamation No.515/2003 was issued.

The Safety Measures to be taken according to Federal Civil Servants Proclamation No. 515/2006

(Article 48) are:-

- 1) Any government institution shall have the responsibility to:
 - a) Ensure that the work place does not cause hazard to the health and safety of civil servants;
 - b) Provide civil servants with protective devices and materials and give them instructions on their usage;

2) Any civil servant shall have the obligation to:

a) observe directives issued in relation to safety and health;

b) properly use safety devices and materials; and

c) promptly inform the concerned official of any situation which he may have reason to believe could present a hazard.

3) The Agency shall supervise occupational safety and health in government institutions and shall issue directives regarding safety precaution measures.

4) The Agency shall undertake studies on the occupational safety and health of work places and facilitate training for its implementation in the government institutions.

The same proclamation specifies in Article 53 that government institutions shall cover the following medical expenses incurred by a civil servant due to employment injury;

a) General and special medical treatment and surgical care expenses;

b) Hospital and pharmaceutical care expenses;

c) Any necessary prosthetic or orthopedic appliance expenses.

Based on the proclamation the Federal Civil Service Agency issued protective devices and materials procedure manual to all federal government organizations in 2000 E.C.

2.9 Operational Definitions

Risk: the likelihood of an undesired event with specified consequences occurring

within a specified period or in specified circumstances. It may be expressed

either as a frequency (the number of specified events in unit time) or as a probability (the probability of a specified event following a prior event), depending on the circumstances.

Occupational disease: a disease contracted as a result of an exposure to risk factors

arising from work activity.

Occupational injury: death, any personal injury or disease resulting from an occupational accident.

Occupational: related to the workplace.

Occupational accident: an occurrence arising out of or in the course of work which results in:

- fatal occupational injury; or
- non-fatal occupational injury.

Monitoring: in the workplace, close observation to determine whether an area is safe for workers.

Hazard: a physical situation with a potential for human injury, damage to property, damage to the environment or some combination of these.

Chapter three

Data Presentation and Analysis

4.1 Findings/Results of questionnaire A

4.1.1 Demographic characteristics

Table 2 shows a total of 55 occupational safety and health experts (100%) respondents completed questionnaire A. The majority of the respondents 46(83.63%) were males and 9(16.36) were females. All Respondents' age range 21-30 years. One (1.8%) of the respondents were married and 54 (98.18%) were single. The educational levels of all 55 respondents were B.sc Degree in Occupational Safety and Health science and the service years of all of them is under 5 years.

Table1 Demographic Information of OSH Experts

Descriptions	Frequency	%
Sex		
Male	46	83.63
Female	9	16.36
Total	55	100
Age		
under20	0	0
21-30	55	100
31-40	0	0
41-50	55	100
Total		

Marital status		
Married	1	1.81
Single	54	98.18
Divorced	0	
Total	55	100
Educational label		
1-4	0	0
5-8	0	0
9-10	0	0
Certificate/Diploma	0	0
B.A, B.sc and above	55	100
Total		100
Service years		
Under5	55	100
5-10	0	0
10-15	0	0
15-20	0	0
Above20	0	0
Total	55	100

Source own survey May, 2011

4.1.2 Occupational Safety and Health Management System (OSHMS)

Table 3 deals with safety and health management system which includes policy, planning, organizing, training, workers participation and monitoring and evaluation of occupational safety and health. Occupational Safety & Health experts found in 55 federal organizations gave the degree of implementation of occupational safety and health management system in their respective organizations by choosing strongly agree, agree, not sure, disagree and strongly disagree options. Referring to all questions occupational safety and health experts were not satisfied with the implementation of occupational safety and health management system in their organizations. They described the degree of implementation of OSHMS in their organizations as follows:-

- Concerning implementation of Safety and health policy 0.27% of them strongly agree, 2.20% agree, 15.15% of them not sure, 34.99% of them disagree and 47.38% of them strongly disagree.
- Concerning implementation of Safety and health planning 0.0% of them strongly agree, 2.25% agree, 12.00% of them not sure, 36.5% of them disagree and 49.00% of them strongly disagree.
- Concerning implementation of Safety and health organizing 0.25% of them strongly agree, 2.72% agree, 23.32% of them not sure, 37.71% of them disagree and 35.98% of them strongly disagree.
- Concerning implementation of Safety and health training 1.26% of them strongly agree, 3.78% agree, 15.77% of them not sure, 34.70% of them disagree and 43.21% of them strongly disagree.
- Concerning implementation of employee participation in Safety and health 2.28% of them strongly agree, 4.21% agree, 20.70% of them not sure, 32.28% of them disagree and 40.52% of them strongly disagree.
- Concerning implementation of monitoring & evaluation of Safety and health 2.65% of them strongly agree, 5.65% agree, 16.60% of them not sure, 31.80% of them disagree and 43.28% of them strongly disagree.

The overall result shows that in 55 federal government organizations the implementation of occupational safety and health management system is not practiced. The following response

distribution shows the results obtained from questionnaire ‘A’ completed by occupational safety and health experts.

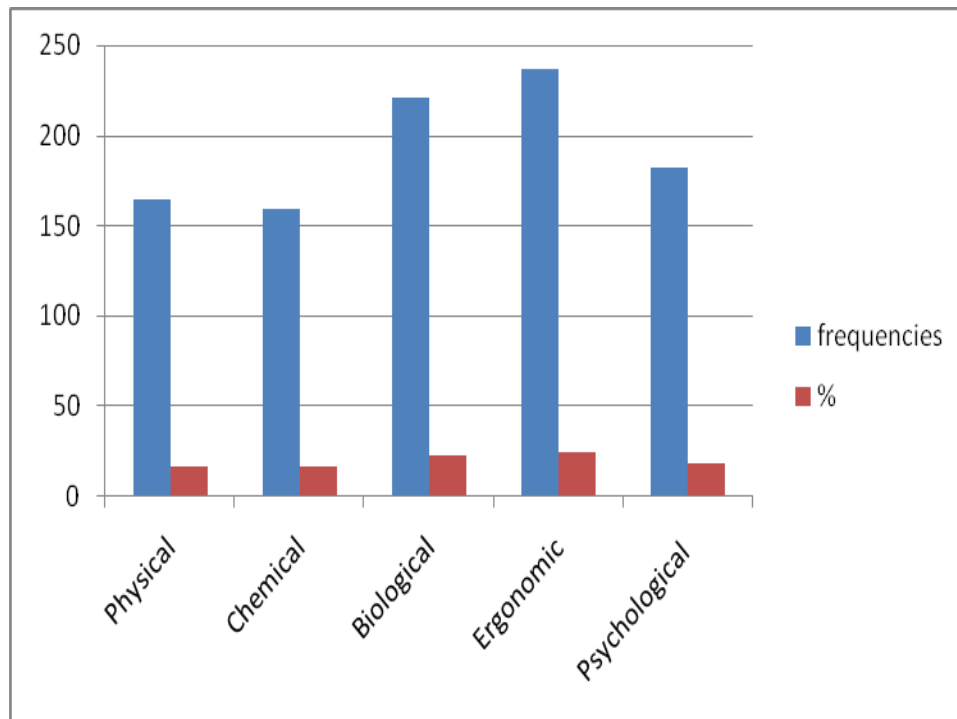
Table 2 Occupational Safety and Health Management System

Elements of OSHMS	Agree strongly	Agree	Not sure	Disagree	Disagree strongly	Total Frequency
Policy	1	8	55	127	172	363
%	0.27	2.20	15.15	34.98	47.38	100
Planning		5	24	73	98	200
%		2.5	12.00	36.50	49.00	100
Organizing	1	11	94	152	145	403
%	0.25	2.72	23.32	37.71	35.98	100
Training	4	12	50	110	137	317
%	1.26	3.78	15.77	34.70	43.21	100
Employee participation	13	24	118	184	231	570
%	2.28	4.21	20.70	32.28	40.52	100
Inspection & Monitoring	15	32	94	180	245	566
%	2.65	5.65	16.60	31.80	43.28	100

Source own survey May 2011

4.1.3 Occupational hazards and diseases

Figure 1 Occupational Hazards and Diseases



Source own survey May 2011

- ▲ 17.11% of experts concerns on physical hazards (too much noise, too much vibration, too much or low light, too much heat, too much cold, too much pressure, electrical hazards and too much dust);
- ▲ 16.49% of experts concerns on chemical hazards (too much dusts, mists, toxic gases hazards, fumes, vapors, dangerous chemicals and X-rays, other radiation);
- ▲ 22.92% of experts concerns on biological hazards (bacterial, fungal, viral, infected meals, lack of adequate toilet facilities, biological agents of infectious disease, exposure to tobacco smoke and others);

▲ 24.48% of experts are concerned with issues relating to ergonomics (working position-standing, working position-sitting, visual conditions, strenuous work, slipping and tipping, bad work design, shift of work and risk of physical strain);

▲ 18.87% of experts are concerned with psychological hazards (awkward pressure and/or repetitive motions, unsafe equipment or machinery, too much work outside working hours, lack of facilities or access, mental stress due to work and risk of eye strain).

4.1.4 Challenges to implement OSHMS federal government organizations.

OSH experts are finally asked to explain main challenges or problems in implementing OSHMS in their respective organizations. The main problems described by them are the following:-

- Lack of awareness of top and middle level managements and civil servants;
- Insufficient or lack of budgetary support;
- Failure to customizes OSHMS to organizational needs;
- Weak management commitment;
- Lack of integration with general management functions and systems and
- Restricting OSH to OSH experts and failing to train and involve civil servants.

4.2 Findings/Results of questionnaire B

4.2.1. Demographic characteristics

Table 4 shows demographic characteristics of respondent civil servants of the surveyed organizations. This indicate that the greater sample respondents are between 30-40 age group or 101(39.14%), the second greater sample respondents are between (20-30) age group are 69(30.00%) and the rest sample respondents greater than forty years are greater than 60(26.08%). The sex ratio of respondents in the surveyed organizations are 153(66.52%) males and 77(33.47%) are females. Marital status of respondents 67(29.13%) are single while 147(63.91%) are married and the rest 16(6.95%) are divorced. Concerning education level of respondents 23(10.00%) is grade 1-4, 34(14.78%) are grade 5-8 , 41(17.82%) are grade 9-10, 87(37.82%) are Certificate/Diploma and 45(19.56%) are B, Sc or B, A and above. Finally the service years of respondents in the surveyed organizations are 12(5.21%) less than 4 years, 51(22.17%) 4-6 years, 78(33.91%) 6-8 years and 89(38.69%) greater than 8 years.

Table 3 Demographic Characteristics of Civil Servants

Age	Number	%
< 20	0	0
20-30	69	30.00
30-40	101	43.91
>40	60	26.08
Total	230	100
Sex		
Male	153	66.52
Female	77	33.47
Total	230	100
Marital status		
Single	67	29.13
Married	147	63.91
Divorced	16	6.95
Total	230	100
Highest education level		
Grade 1-4	23	10.00

Grade 5-8	34	14.78
Grade 9-10	41	17.82
Certificate/Diploma	87	37.82
B, Sc or B, A and above	45	19.56
Total	230	100
Service years		
-4 years	12	5.21
4-6 years	51	22.17
6-8 years	78	33.91
> 8 year	89	38.69
Total	230	100

Source own survey May 2011

2.2.2 Occupational Safety and Health Management system

The degree of implementation of occupational safety and health management in the surveyed Organizations 20(8.69%) said Occupational Safety and Health Policy in place, 150(65.21%) said no and 60(26.08%) Implementation 35(15.21%) said it is implemented, 126(54.78%) said not implemented and the rest

69 (30.00%) cannot say any. In respect of organizing occupational safety and health in surveyed organizations 42(18.26%) responded yes, 119(51.73%) responded no and 69(30.00%) cannot say any.

Regarding safety and health training 45(19.56%) respondents answered yes, 124(53.91%) responded no and the rest 61 (26.52%) cannot answer any. Respondents in the surveyed organization reflected on employee participation or involvement in safety and health 54(23.47%) answered yes, 120(52.17%) and 56(23.47%) answered yes, 120(52.17%) answered no and 56(24.34%) cannot say any.

Finally respondents in the surveyed organization answered on monitoring and evaluation of safety and health 55(23.91%) said yes, 105(45.65%) said no and the rest70(30.43%) cannot say any.

The following table shows the data.

Table 4 Occupational Safety and Health Management System(OSHMS)

Elements of OSHMS	Yes	No	Cannot say	Total
Occupational Safety and Health Policy	20	150	60	230
%	8.69%	65.21%	26.08%	100%
Planning and Implementation	35	126	69	230
%	15.21%	54.78%	30.00%	100%
Organizing	42	119	69	230
%	18.26%	51.73%	30.00%	100%
Training	45	124	61	230
%	19.56%	53.91%	26.52%	100%
Employee participation or Involvement	54	120	56	230

%	23.47%	52.17%	24.34%	100%
Monitoring and Evaluation	55	105	70	230
%	23.91%	45.65%	30.43%	100%

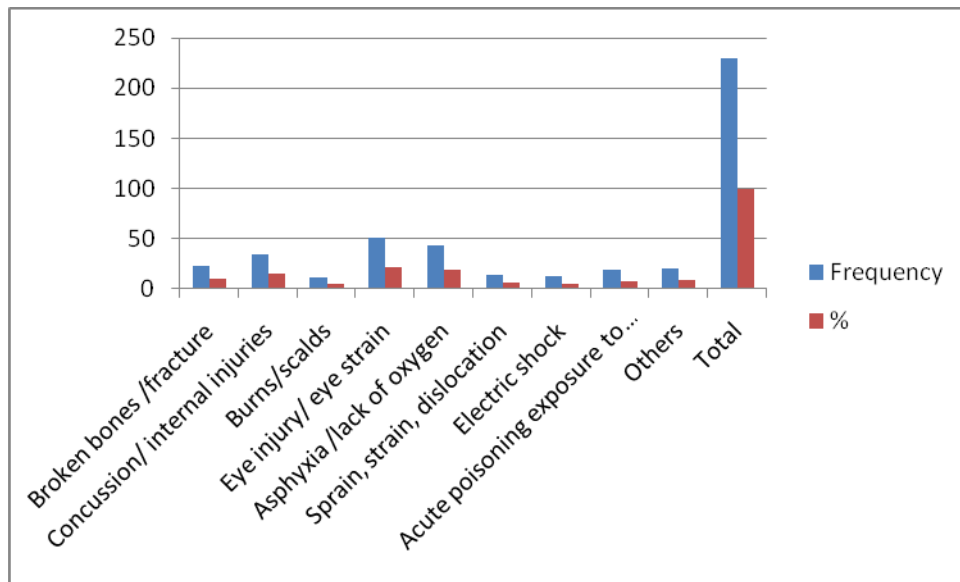
Source own survey May 2011

4.2.3 Occupational Injury diseases and illness.

Nature of illness or injuries.

Figure 2 shows 230 of hazards or injuries were in 55 organizations in the past 12 months. These are broken bones / fracture 10% , concussion/ internal injuries 14.78%, burns/scalds 5.21%, eye injury/ eye strain 22.17%, asphyxia /lack of oxygen 18.69%, sprain, strain, dislocation 6.08%, electric shock 5.65%, acute poisoning exposure to toxic 8.26% and others 9.13%.

Figure 2 Nature of Illness or Injuries

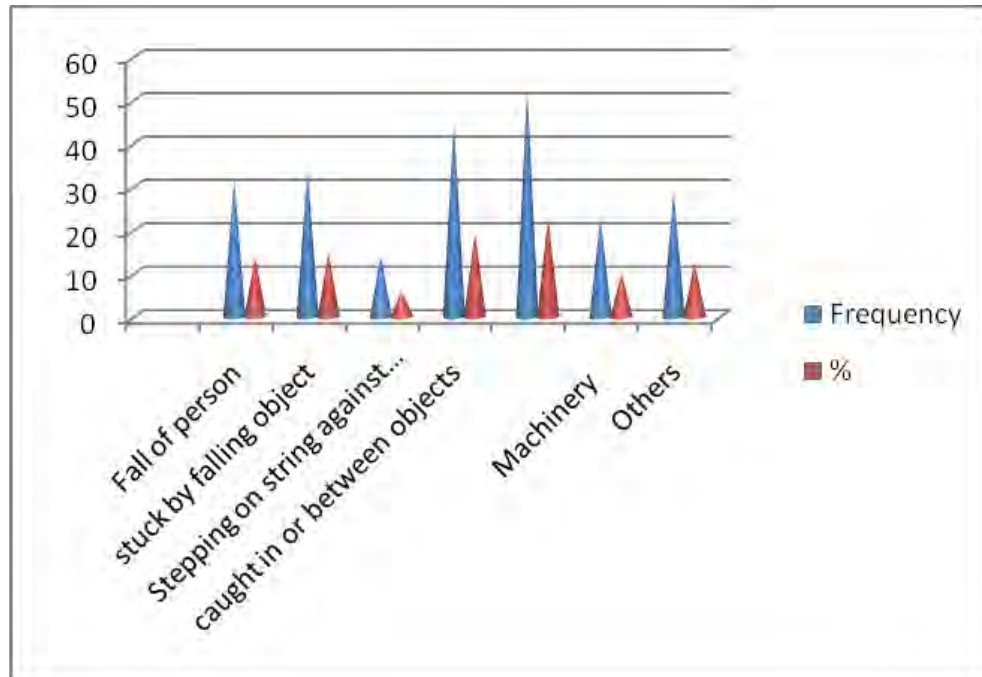


Source own survey May 2011

4.2.4 Cause of hazards or injuries

As shown in the following Figure 3 the causes of occupational diseases or injuries in the surveyed organizations were fall of person 13.91%, stuck by falling object 14.78%, stepping on string against object 6.08%, caught in or between objects 19.56%, over exertion or stern movement 23.04%, Over exertion or stern our s movement 10.00% and others 12.60%. With regard to these injuries or diseases in these organization, all were caused by unsafe working conditions.

Figure 3 Causes of Hazards or Injuries

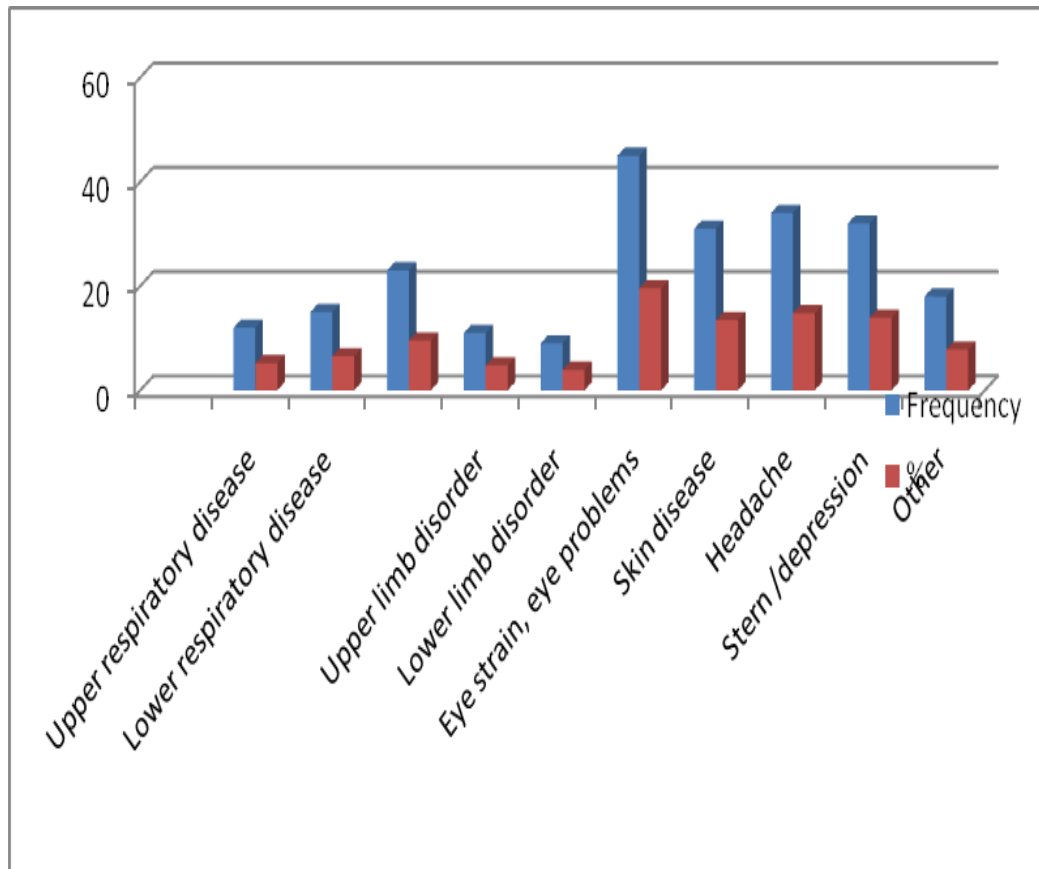


Source own survey May 2011

4.2.5 Effect of hazards or injuries

Figure 4 shows responses from surveyed organizations in which health problems are associated with upper respiratory disease 5.21%, Lower respiratory disease 6.52%, hearing loss 9.56%, upper limb disorder 4.78%, lower limb disorder 3.91%, eye strain, eye problems 19.56%, skin disease 13.47%, headache 14.78%, stress/depression 13.91% and others 7.82%.

Figure 4 Effects of Hazards or Injuries



Source own survey May 2011

4.2.6 Provision of medical treatment

Figure 5 shows responses on medical treatment given by organization. From the total civil servant respondents 10(3.90%) receive medical treatment, 223(87.10%) did not receive medical treatment while 23(8.98%) cannot say any. The following table illustrates collected data.

Table 5 Provisions of Medical Treatments

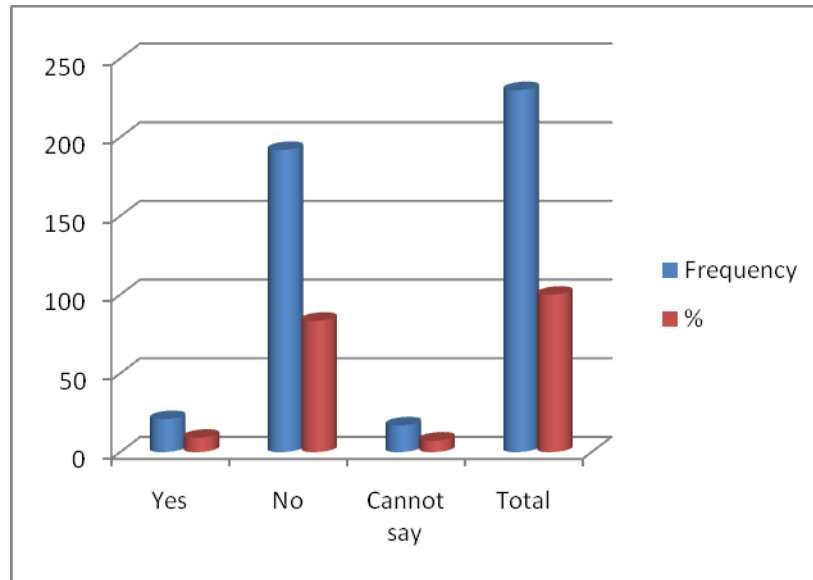
Medical treatment	Frequency	%
Yes	17	7.39
No	188	81.73
Cannot say	25	10.86
Total	230	100

Source own survey May 2011

4.2.7 Compensation paid for injuries or illness.

Figure 5 shows Civil servants who were asked whether they were paid compensation by their organization when they face occupational hazards or disease. With regard to compensations for civil servants who suffered from work-related injuries and illness the majority of 192(83.47%) of injured and ill health civil servants did not get compensations. Only 21(9.13%) of injured and ill health workers in surveyed organizations were compensated. 17(7.39%) did not respond whether they were compensated or not.

Figure 5 Compensation Paid for Injuries or Illness



Source own survey May 2011

4.2.8 Average days absent from work due occupational hazard or disease

Table 6 shows respondent civil servants in the surveyed organizations explained that 12(8.00%) were less than 2, 23(15.33%) were 2-4, 11(7.33%) were 4-6, 40(26.66%) were 6-8, 39(26.00%) and 25(16.66%) were greater than 10 days absent from work. The data is shown in the following table.

Table 6 Average days absent from work due to Occupational hazards or illness

Days	Frequency	%
<2	12	8.00
2-4	23	15.33
4-6	11	7.33

6-8	40	26.66
8-10	39	26.00
>10	25	16.66
Total	150	100

Source own survey May 2011

4.2.9 Discussions made with five selected Heads of Human Resource Management

Discussions with heads, of human Resource Management (HRM) were conducted during the study period to generate more detailed information and those missed by quantitative methods concerning issues of OSHMS in surveyed organizations. All heads, of HRM are degree holders and married, among them one is female and the rest four are males. The interviews were conducted with the five heads, of HRMs and written interview questions were submitted to them in advance to help them prepare. Discussion programs were arranged earlier and according to time schedule it is conducted successfully. Two reporters were record the whole issues while the principal investigator and heads, of HRM were discussing. The focus of discussions was the degree of implementation of OSH mentioned in proclamation 515/2006.

Findings

In general the responses to questions raised during the discussions were summarized and stated below:-

- Their organization did not give concern according to the law.
- OSHMS activities are marginalized;
- All suffer from sufficient budget (Inadequate resources);
- They did not properly used OSH experts.
- No periodic OSH inspections have been made by the organization nor by other;

- No OSH training was provided to civil servants;
- No employee involvement and participation in OSH;
- Lack of an understanding of OSHMS;
- Poor management commitment to OSH;
- No integration of OSHMS into general management system.

4.2.109 Discussion with official of FCSA (MCS)

Three department heads were selected prior to discussions. The focus of discussion was what actions taken by FCSA (MCS) to promote OSH according to proclamation 515/2006(Article 48 sub Articles 3 and 4).

The result of discussion was that the Agency sees to the administration of a total fifty-six – thousand – nine hundred – eleven (56,911) civil servants, of which thirty-two-thousand – six hundred – forty-three (32,643) are females. No OSH inspection have been undertaken under the supervision of FCSA (MCS) until now. Neither did the FCSA(MCS) carry out OSH sensitization, education or training programmes. In fact, the FCSA(MCS) has devoted to the task of OSH as yet no department or section, an inspection system, an adequate number of trained and experienced OSH inspectors, OSH plans, programmes and projects, facilities and equipment or adequate budget. Still the FCSA(MCS) thinks that it can emulate, learn or even share with the Labour Inspection Service practices, laws, standards and ILO, etc.

Chapter four

Conclusion and Recommendations

5.1 Conclusions

This Research has reviewed responses of occupational safety and health Experts, Civil Servants, Head of Human Resource Managements and department heads of Ministry of Civil Service upon work place occupational hazards and diseases and the effectiveness of Occupational Safety and Health Management System (OHSMS) in federal government organizations. The research result shows the existence of different types of occupational hazards and diseases which create unsafe working environment and conditions that harm the health of civil servants and no programmes such as policy, planning, organizing, participation of civil servants, training and inspection of safety and health. On top of these the management of surveyed organization unable to use properly OSH experts to enhance OSHMS in their respective organizations. Therefore it is necessary to take appropriate actions by management of the organizations and higher government bodies to adopt OSHMS to improve OSH outcomes.

5.1.2 Recommendations

Based on the study findings the following recommendations are forwarded.

1. The support and proper concerns of higher government bodies such as Council of Ministers, Office of the Prime Minister, Ministry of Finance and Economic Development etc. are very important. Therefore the support of government bodies is required to allocate sufficient annual budget for the proper functioning of occupational safety and health program.
2. Taking safety measures at work place is the responsibility of government organizations. To accomplish this task it is necessary for the federal government organizations to implement OSHMS as general management practices and properly use OSH experts to enhance OSHMS in their respective organizations.

3. The obligation of Ministry of Civil Service (MCS) is to carry out OSH inspections and training programs. Therefore the Ministry of Civil Service (MCS) must conduct regular OSH training programmes to all managers and civil servants and carry out periodic OSH monitoring and evaluation.

References

Barry S. Levy, David H. Wegman. *Occupational Health*, 3rd ed. 1995, USA.

Benjamin O, Alli : *Fundamental Principles of Occupational Health and Safety*, ILO, Geneva Switzerland

Bottomley, B. (1999a) *Occupational Health and Safety Management Systems: Information Paper*, National Occupational Health & Safety Commission, Sydney. .Bottomley, B. (1999b) *Occupational Health and Safety Management Systems: Strategic*

Elizabeth II, *Health and Safety at Work Act* 1974.

[<http://www.healthandsafety.co.uk/inflib.htm>.], 1974. .

Federal Civil Service Agency, 2000 E.C, *Protective Devices and Materials Procedure Manual*. Addis Ababa.

Federal Civil Service Agency, 200 E.C, *Assessment of Occupational Safety and Health in 36 Federal Government Organizations*. Addis Ababa.

Federal Civil Service Agency, 200 E.C, *First Quarter Performance Report*, Addis Ababa.

ILO-OSH 2001. *Guidelines on Occupational Safety and Health Management System*. Igor A. Fedotov, *World Health Forum, An international journal of health*

development. Vol. 19(4), pp.390-396, 1998, WHO, Geneva.

ILO, *Safety and Health Recommendations*, 1981 No 164.

International Labour Organization (ILO) Convention No.155/198

ILO, *labour inspection conventions* No 81/1947 and 129/69

John B. Kachuba, Mary A. Newman, *Protect yourself from the 10 occupational injuries and illnesses, Why is this job killing me?* 1999.

J.M. Stellman, *Encyclopedia of occupational health and safety*, vol. II, International Labor Office Geneva, 1998

Ministry of Labour and Social Affairs,1997,*Occupationa Safety and Health Training package.*

Negarit G azeta. 8th Yrar No. 8th 3rd January, 2002. *Federal Civil Servant Proclamation* No.515/2006. Addis Ababa: Berhanana Selam Printing Enterprise.

Negarit G azeta. 47th Yrar No. 12th September, 1987. *Proclamation of the Constitution of the Peoples Republic of Ethiopia, Proclamation* No.1/1987. A ddis A baba: Berhanana S elam Printing Enterprise.

Occupational safety and health Act of 1970, USA

Recommendation and Promotional convention for occupational safety and health No.187.

WHO/ILO. *Occupational Health and Safety in Africa. Meeting report on occupational health hazard.* 1987.

W. O. Phoon,*World Health Forum, Occupational hazard exposure of workers, an international journal of health development.* Vol. 4(4),

Pp.340-343, 1983 WHO, Geneva.

Universal Declaration on Human Rights (UN, 1948).

Annexes

Annex I English version questionnaires A

Addis Ababa University School of Business and Public Administration Department of Public Administration and Management Questionnaire for assessment of Occupational Safety and Health Management System for OSH Experts.

This assessment questionnaire has four parts.

Part 1 is Personal Information

Part 2 is designed to reflect some work related health and safety hazards and unpleasant working conditions in organizations.

Part 3 is designed to evaluate the effectiveness of occupational safety and health management system (OSHMS) in organizations.

Part 4 is challenges to implement effective OSHMS organizations.

All part 1, 2 3 & 4 questions shall be filled or completed by Occupational Safety and Health Experts.

What you say in this question is completely confidential thank you for giving me your time and effort to respond for the questions.

Part I. Personal Information

1.1 Sex

Male Female

1.2 Age under 20 20-30 30-40 over 40

1.3 Martial status

Single married Divorced widowed separated

1.4 Highest education lever completed?

- Grade 1-4 Grade 9-10 B, Sc or B, A and above
- Grade 5-8 Certificate/Diploma

1.5 How long have you been served in this organization?

- Less than 2 years 4-6 years More than 8 years
- 2-4 years 6-8 years

Part II. Work place health and safety

Below is a list of health and safety hazards and unpleasant working conditions. Please indicate the ones about which you are concerned in your organization by ticking the relevant boxes below.

Physical hazards

- Too much **noise**
- Too much vibration
- Too much or low light
- Too much heat
- Too much cold
- Too much pressure
- Electrical hazards
- Too much dust

Chemical hazards

- Too much dusts
- Mists
- Toxic gases hazards
- Fumes
- Vapors
- Dangerous chemicals
- X-rays, other radiation

Biological hazards

- Bacterial

Ergonomic hazards

- Working position-standing

- Fungal
- Viral
- Meals at enterprise
- Lack of adequate toilet facilities
- Biological agents of infectious disease
- Exposure to tobacco smoke or other
- Working position-sitting
- Visual conditions
- Strenuous work
- Control and tools
- Signals and panels
- Slipping and tipping
- Bad work design
- Shift of work
- Risk of physical strain

Psychological (social)

- Awkward pressure and/or repetitive motions
- Unsafe equipment or machinery
- Too much work outside working hours
- Lack of facilities or access
- Mental stress due to work
- Risk of eye strain

Part III. Show your feelings about the following OSHMS statements.

	Safety & Health Statements	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
A	Safety & Health Policy						
1	Occupational Safety and Health Policy of the organization is in place.						
2	The policy includes safety and health philosophy of the organization.						

3	The policy includes management's commitment to prevent injuries and occupational illnesses.						
4	The policy lays out responsibility of managers, supervisors and workers.						
5	The policy is clear about who is responsible and accountable.						
6	Mission / commitment identified/ are communicated.						
7	The policy involves continual improvement of OSH management system.						
B	Safety & Health Planning						
8	Workplace injury/illness data are effectively analyzed.						
9	Hazard incidence data are effectively analyzed.						
10	Safety and health goal and supporting objective exist.						
11	Action plan designed to accomplish the organization safety and health objectives are in place.						
C	Safety & Health Organization (Integration into general Management Systems)						
12	Safety and health program and tasks are each specially assigned						

	to a person or position for performance or coordination.						
13	Each assignment of safety and health responsibility is clearly communicated.						
14	An accountability mechanism is included with each assignment of safety and health responsibility.						
15	Individuals with assigned safety and health responsibilities have the necessary knowledge, skills, and timely information to perform their duties.						
16	Individuals with assigned safety and health responsibilities have the authority to perform their duties.						
17	Individuals with assigned safety and health responsibilities have the resource to perform their duties.						
18	Organizational policies promote the performance of safety and health responsibilities.						
19	Organizational policies result in correction of non-performance of safety and health responsibilities.						
D	Safety & Health Training						
20	Employees receive appropriate safety and health training.						
21	New employee orientation includes applicable safety and						

	health information.						
22	Supervisors receive appropriate safety and health training.						
23	Supervisors receive training that covers the supervisory aspects of their safety and health responsibilities.						
24	Safety and health training is provided to managers.						
25	Relevant safety and health aspects are integrated into management training.						
F	Employee participation or Involvement						
26	There is an effective process to involve employees in safety and health issues.						
27	Employees are involved in organizational decisions-making in regard to safety and health policy.						
28	Employees are involved in organizational decisions-making in regard to safety and health resources.						
29	Employees are involved in organizational decisions-making in regard to safety and health training.						
30	Employees participate in hazard detection activities.						

31	Employees participate in hazard prevention and control activities.						
32	Employees participate in the safety and health training of co-workers.						
33	Employees participate in the safety and health planning activities.						
34	Employees participate in the evaluation of safety and health performance.						
35	All Employees are encouraged and capable of participation						
36	Independent representation of employees are encouraged and supported						
G	Inspection & Monitoring						
37	Inspection is appropriately used to verify and validate Occupational Health and Safety Management System and facilitate continuous Improvement						
38	Formal (planned) inspections and monitoring are conducted.						

39	Occupational Health and Safety inspection is adequate to organizational needs and reflect key Occupational Health and Safety Management System success						
40	Occupational Health and Safety Management System inspection processes are implemented well with the assistance of OSH experts.						
41	safety and health inspections are integrated within a comprehensive approach to measurement						
42	Personal protective equipment (PPE) is properly provided by employers.						
43	Safety and health inspection records must be produced to ensure accountability						
44	Senior management conduct safety and health inspections						
45	Middle management conducts safety and health inspections						
46	Front line supervisors conduct safety and health inspections.						
47	OSH experts conduct inspections.						

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Part 4 Shortly explain main problems or c hallenges f aced to impl ement O SHMS in your organization?

Thank you

Annex II English version questionnaire B

Addis Ababa University School of Business and Public Administration Department of Public Administration and Management Questionnaire for assessment of Occupational Safety and Health Management System for Civil servants.

This assessment questionnaire has four parts.

Part 1 is Personal Information

Part 2 is designed to evaluate the effectiveness of occupational safety and health management system (OSHMS) in organizations.

Part 3 is Occupational Injury diseases and accidents

All part 1, 2 &3 questions shall be filled or completed by Civil Servants.

What you say in this question is completely confidential thank you for giving me your time and effort to respond for the questions.

Part I. Personal Information

1.1 Age

Under 20 20-30 30-40 over 40

1.2 Sex

Male Female

1.3 Martial status

Single married Divorced widowed separated

1.4 Highest education lever completed?

Grade 1-4 Grade 9-10 B, Sc or B, A and above

Grade 5-8 Certificate/Diploma

1.5 How long have you been served in this organization?

Less than 2 years 4-6 years More than 8 years

2-4 years 6-8 years

Part II. Occupational Safety and Health Management System

1. Occupational Safety and Health Policy

Are there Occupational Safety and Health Policy of the organization?

Yes No can not say

2. Organizing

Is organizational structure ensuring that OSH is staff or line-management responsibility which is known and accepted at all levels?

Yes No can not say

3. Employee participation or Involvement

Employers ensure that workers consulted, informed and trained on all aspects of OSH including emergency arrangements, associated with their work.

Yes No can not say

4. Planning and Implementation

Is the organization identifies, anticipate and assess hazards and risks to safety and health arising from the existing or proposed work environment and work organization?

Yes No can not say

5. Training

Have you got inductions on how to perform your work in a safer way before you have assigned new task

Yes No can not say

6. Monitoring and Evaluation

Does your organization conduct periodic OSH inspections?

Yes No can not say

Part III. Occupational Injury diseases and accidents

1 Have you suffered any occupational hazards or injuries caused by your work in the past 12 months in this organization?

Yes No can not say

2 If your response for question 2.1 is yes, what was the nature of injury?

- Broken bones /fracture
- Concussion, in internal injuries
- Burns/scalds
- Eye injury/ eye strain
- Asphyxia /lack of oxygen
- Sprain, strain, dislocation
- Bruising
- Electric shock
- Acute poisoning exposure to toxic
- Others, specify-----

2. If your answer for question No 7.1 is yes, what was the cause of the injury?

- Fall of person stuck by falling object
- Stepping on string against object caught in or between objects
- Over exertion or stern ours movement exposure to extreme temperature

Machinery others

4. If your response for question No 7.2 is yes, what was the effect of the injury?

- No permanent effects
- Permanent effects, able to work, not in same job
- Permanent effects, able to work, not same job
- Permanent effects, not able to work at all
- Other, specify -----

5. Does the injury still interfere with your ability to do work?

- Yes No can not say

6 Have you suffered any illness during the past 12 months which is caused by your work in this organization?

- Yes No can not say

7 If your response for 2.6 is yes, what was /were/ the health problem /s/

- Upper respiratory disease Lower respiratory disease
- Hearing loss upper limb disorder
- Lower limb disorder Eye strain, eye problems
- Skin disease Headache
- Stern /depression
- Other, specify -----

8 Have you got sufficient medical treatment by your organization?

- Yes No can not say

9 How many days on a verage are you absent from work annually due to the occurrence of occupational injuries or illness on yourself?

Less than 2 days

3 days

2-4 days

8-10 days

4-6 days

more than 10 days?

10 Have you got compensation for being injured?

Yes

No

can not say

Annex III Amharic version questionnaires B

የሙያ ደህንነትና ጤንነት ሥራ አመራር መረጃ መሰብሰቢያ መጠይቅ

በሠራተኛ የሚሞላ

ለመጠይቁ የሚሰጡት ማናቸውም መልስ ሚስጥራዊነት የተጠበቀ ነው። ጊዜዎን ወስደው ደህንን መጠይቅ ስለሞሉ በቅድሚያ እናመሰግናለን።

ክፍል 1. የግል መረጃ

1.1 ዕድሜ

- ከ20 በታች ከ20--30 ከ30--40 ከ40--50 ከ51 በላይ

1.2 ጾታ

- ወንድ ሴት

1.3 ያጋብቻ ሁኔታ

- ያላገቡ ያገቡ አግብተው የፈቱ

1.4 ክፍተኛ የትምህርት ደረጃ

- ከ1-4 ከ9--10 በ.ኤ፣ በ.ኤስ.ሲ እና በላይ
- ከ5-8 ሰርተፊኬት /ዲፕሎማ

1.5 በዚህ መሥሪያ ቤት ውስጥ ምን ያህል ጊዜ አገልግለዋል?

- ከ5 ዓመት በታች ከ10--15 ዓመት ከ20 ዓመት በላይ
- ከ5--10 ዓመት ከ15--20 ዓመት

ክፍል 2. የሙያ ደህንነትና ጤንነት ሥራ አመራር (Occupational Safety and Health Management)

ሀ/ የሙያ ደህንነትና ጤንነት ፖሊሲ(Occupational Safety and Health Policy)

2.1 የሙያ ደህንነትና ጤንነት ፖሊሲ አለ

አዎ የለም እርግጠኛ አይደለሁም

ለ/ በሙያ ደህንነትና ጤንነት የሠራተኞች ተሳትፎ (Employee Participation of Occupational Safety and Health)

2.2 በመስሪያ ቤት ዓላፊዎችና ሠራተኞች የሙያ ደህንነትና ጤንነትን እንዲገነዘቡ ተደርጎአል፡፡

አዎ የለም እርግጠኛ አይደለሁም

ሐ የሙያ ደህንነትና ጤንነት አደረጃጀት(Organization of Occupational Safety and Health)

2.3 የመሥሪያ ቤት የሥራ አደረጃጀት የሙያ ደህንነትና ጤንነትን ሥራ እንደማንኛውም ሥራ ያካተተ ነው ።

አዎ የለም እርግጠኛ አይደለሁም

መ/ የሙያ ደህንነትና ጤንነት ዕቅድ Planning of Occupational Safety and Health)

2.4 መሥሪያ ቤት የሥራ ላይ አደጋዎችንና ህመሞችን በእቅድ ያጠናል ወይም ይገመግማል፡፡

አዎ የለም እርግጠኛ አይደለሁም

ሠ ሙያ ደህንነትና ጤንነት ሥልጠና(Training of Occupational Safety and Health)

2.5 ሠራተኞች ዘወትር ሥራ ከመጀመራቸው በፊት ስለሙያ ደህንነትና ጤንነት የተማላ ግንዛቤ ይሰጣቸዋል፡፡

- አዎ
- የለም
- እርግጠኛ አይደለሁም

ረ የሙያ ደህንነትና ጤንነት ግምገማና ቁጥጥር(Inspection of Occupational Safety and Health)

2.6 መሥሪያ ቤትዎ መደበኛ የሙያ ደህንነትና ጤንነት ቁጥጥርና ግምገማ ያከናውናል፡፡

- አዎ
- የለም
- እርግጠኛ አይደለሁም

ክፍል 3.የሙያ ደህንነትና ጤንነት ጠንቆች /Occupational safety and Health Hazards and Illness/

3.1 በሥራዎ ላይ አደጋ ደርሶብዎት ያውቃል?

- አዎ
- አልደረሰም
- መልስ የለኝም

3.2 በተራ ቁጥር 3.1 የሰጡት መልስ ከሆነ ምን አይነት አደጋ ነበር?

- የአጥንት መሰንጠቅ /ስብራት/
- የኬሚካል አደጋ ወይም ጠንቅ
- የውስጥ ሰውነት ጉዳት
- የኤሌክትሪክ አደጋ
- ቃጠሎ /አሲድ/
- ሌሎች ከሆኑ ቢገለፁ -----
- የአይን ህመም
- የመተንፈስ ችግር ለተወሰነ ጊዜ
- ደም መፍሰስ

3.3 ለተራ ቁጥር 3.1 የሰጡት መልስ ከሆነ የደረሰብዎ አደጋ መንስዔ /ጽፈፊድ/ ምንድነው?

- መውደቅ
- የሥራ መሣሪያ ጉዳት ነው
- ዕቃ ወደቆብኝ ነው
- ወለል አዳልጠኝ ነው
- ዕቃ አደናቅፎኝ ነው
- ደረጃ አደናቅፎኝ ነው
- ከመሰላል ወደቄ ነው
- ሌሎች ከሆኑ ቢገለፁ -----

3.4 ለተራ ቁጥር 3.1 የሰጡት መልስ አይ ከሆነ የአደጋው ምክንያት /ቸቷጭስጽ/ ምንድነው?

- ምክንያቱን አላውቅም
- በተለያየ የሥራ መደብ ላይ በመሥራቴ ነው
- በተለያየ ሥራ መደብ ላይ ባለመሥራቴ ነው
- በአጠቃላይ ሥራ ባለመሥራቴ ነው
- ሌሎች ከሆኑ ቢገለፁ -----

3.5 ጉዳት ደርሶብኝ ከሆነ ጉዳቱ በሥራ ችሎታዎ ላይ ተፅዕኖ እየደረሰ ነው?

- አዎ
- አይደለም
- መልስ የለኝም

3.6 በሥራዎ ላይ በቆዩባቸው ዓመታት በሥራዎ ምክንያት የደረሰብዎ ህመም አለ?

- አዎ
- የለም
- መልስ የለኝም

3.7 በተራ ቁጥር 3.6 የሰጡት መልስ አይ ከሆነ ያጋጠመዎት ህመም ቢገልጹ?

- የመተንፈሻ አካላት ችግር
- የማየት ችግር
- የመስማት ችግር
- ራስዎታት
- የሆድ ዕቃዎች ህመም
- የአጥንት ህመም
- የቆዳ ህመም
- የልብ፣ የአንጉል ህመም
- ሌሎች አካላት ከሆኑ ቢገልጹ ----

3.8 በሥራ ላይ በደረሰብዎ አደጋ ወይም ህመም በዓመት በግምት ምን ያህል ቀናት ከሥራዎ ቀርተዋል?

- ከ2 ቀን ያነሰ
- ከ6--8 ቀን
- ከ2--4 ቀን
- ከ8--10 ቀን
- ከ4--6 ቀን
- ከ10 ቀን በላይ

3.9 በሥራ ላይ ባጋጠመዎት አደጋ ወይም ህመም ከሥራ ለቀሩባቸው ቀናት ካሳ ተከፍሎት ያውቃል?

- አዎ
- አልተከፈለኝም
- መልስ የለኝም

3.10 በተራ ቁጥር 2.9 ለተጠቀሰው መልስዎ አዎ ከሆነ የተከፈለዎ ካሳ በብር ቢገልጹ

3.11 በመሥሪያ ቤትዎ የመጀመሪያ ደረጃ የህክምና ዕርዳታ /ፍሻራረሰተ -ቷሻሪ/ አለ?

- አዎ
- የለም
- መልስ የለኝም

3.12 የመጀመሪያ ደረጃ የህክምና ዕርዳታ አሰጣጥ ሥልጠና በመሥሪያ ቤትዎ አማካይነት ይሰጥዎታል?

- አዎ
- አይሰጠኝም
- መልስ የለኝም

3.13 በሥራዎ ላይ ሆነው አደጋ ወይም ህመም ቢያጋጥምዎ የህክምና ዕርዳታ የት ይሰጥዎታል?

- በመሥሪያ ቤቱ ክሊኒክ
- በመንግሥት ሆስፒታል
- በግል ሆስፒታል
- በሌላ ከሆነ ይግለጹ -----

3.13 የህክምና ወጭዎን ማን ይሸፍንልዎታል?

መሥሪያ ቤቱ

በግሌ

ሌሎች ከሆነ ቢገለጹ -----

3.14 አሁን ባለብት መሥሪያ ቤት ከመቀጠርዎ በፊት የጤንነት ምርመራ ያደርጉ ነበር?

አዎ

አላደርግም

መልስ የለኝም

እናመሰግናለን

Annex IV Sample of organization Taken for the study.

No	Name of organizations	No of OSH experts	No of civil servants(20%)
1	Ministry of labor & Social Affair	1	4
2	National Metrology Agency	1	3
3	National Lottery Administration	1	3
4	Revenue Administration Authority	1	4
5	Addis Ababa University	1	6
6	Ethiopian Mapping Institute	1	4
7	Ministry of Defense	1	4
8	Environmental protection Authority	1	3
9	Ministry of Federal Affairs	1	4
10	Alert	1	5
11	National Documentation and Library	1	4
12	Black Lion Hospital	1	5
13	Ministry of Youth & Sports Affairs	1	4

14	Ethiopian Civil Service College	1	3
15	Ministry of Justice	1	2
16	Ministry of Civil Service	1	5
17	St. Emanuel mental Specialized Hospital	1	5
18	Ministry of Agriculture & Rural Development	1	7
19	Ministry of Education	1	6
20	Central Statistical Agency	1	7
21	National Palace Administration	1	4
22	Ministry of water resource	1	6
23	Ministry of mine & Energy	1	6
24	Quality & Standards Authority of Ethiopia	1	5
25	Ethics and Anticorruption Commission	1	4
26	St. Paul Specialized Hospital	1	5
27	Ministry of Urban Works	1	5
28	Federal prison	1	4

	Administration		
29	Drug Administration and Control Authority	1	4
30	Federal Micro and Small-Scale Enterprises Development Agency	1	5
31	Federal Higher Court	1	6
32	National Conference Hall	1	3
33	Ministry of Industry	1	5
34	Ethiopian Radiation Protection Authority	1	5
35	Ministry of Culture & tourism	1	5
36	St. Peter Specialized Hospital	1	6
37	Ethiopian Rural Energy Development Center	1	5
38	Institute of biodiversity	1	4
39	Social Security Agency	1	5
40	Ethiopian Investment Agency	1	4
41	General Auditor	1	4
42	Ethiopian Health and	1	6

	nutrition Research institute		
43	Ethiopian Agriculture Research Institute	1	
44	National Fuel Depot Administration	1	4
45	Ethiopian Information & Communication Development Agency	1	4
46	Ethiopian Food Depot Administration	1	4
47	National Museum Authority	1	4
48	Federal Transport Authority	1	5
49	Ethiopia geological Survey	1	6
50	Ministry of Science & Technology	1	6
51	Ministry of Trade	1	5
52	Ministry of Transport and communications	1	7
53	Ministry of Health	1	9
54	HIV/AIDS Prevention and Control Office	1	5
55	Ethiopian Customs	1	5

	Authority		
	Total	55	258

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for this thesis have been duly acknowledged.

Name-----

Signature-----

Place: Addis Ababa, Ethiopia

Date of submission-----

This thesis has been submitted for examination with my approval as a university advisor.

Name-----

Signature-----

Date-----

