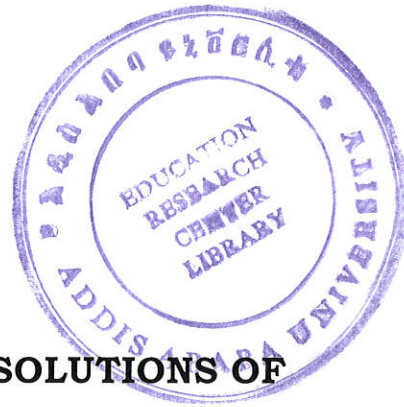


ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES



**PROBLEMS AND POSSIBLE SOLUTIONS OF
UTILIZATION OF MATERIAL RESOURCES IN NON-FORMAL
TVET INSTITUTES IN ADDIS ABABA**

BY
TAKELE ABATE

JUNE 2008
ADDIS ABABA

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TVET INSTITUTES IN ADDIS ABABA**

**A THESIS PRESENTED TO THE SCHOOL OF
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**BY
TAKELE ABATE**

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Table of Contents

	Pages
Acknowledgment.....	I
List of Tables.....	II
List of Acronyms and Abbreviation.....	III
Abstract.....	IV
 Chapter One	
1.1 Background of the Study.....	1
1.2 Statement of the Problem.....	5
1.3 Objectives of the Study.....	6
1.4 Significance of the Study.....	7
1.5 Delimitation of the Study.....	8
1.6 Limitation of the Study.....	9
1.7 Research Methodology and Procedure of the Study.....	10
1.7.1 Method of the Study	10
1.7.2 Population and Sampling Techniques.....	10
1.7.3 Data Collection Instruments and procedures.....	11
1.7.3.1 Instruments of Data Collection.....	11
1.7.3.2 Procedures of Data Collection.....	12
1.7.4 Method of Data Analysis.....	12
1.8 Operational Definition of Terms.....	14
1.9 Organization of the Study.....	17
 Chapter Two	
Review of Related Literature.....	18
2.1 Historical Background of Technical Vocational Education in Ethiopian.....	18
2.2 The concept and Non-Formal TVET.....	23
2.2.1 The Role of Non-Formal TVET in Developing a nation.....	25
2.2.2 The Profile of Non-Formal TVET Program in Addis Ababa.....	28
2.2.3 Policy Support to Establish NF-TVET Institutions.....	30
2.3 Material Resource Concept and Definitions.....	32
2.3.1 Material Resources Management in Non-Formal Technical Vocational Training Centers.....	33
2.3.2 Material Resource Planning.....	35
2.4 Financing the Non-Formal TVET Institution.....	37
2.4.1 Cooperative Training between Non-Formal TVET Institutions and Enterprise.....	40
2.5 The Practice of Financing the TVET centers in some Selected Countries.....	42
2.5.1 Botswana.....	42
2.5.2 Malawi.....	44
2.5.3 Philippines.....	45

Title	Pages
2.5.4 Learned Experiences on Financing of TVET from Botswana, Malawi and Philippines	46
2.6 Material Purchasing for Non-Formal TVET.....	47
2.6.1 Effective Utilization of Material Resources in NF-TVET.....	48
2.6.2 Challenges/Problems Associated with the Resource Utilization in Non-Formal TVET in Addis Ababa.....	51
2.6.3 Storage and Distribution of Material Resources.....	53
2.6.4 Inventory control of Material Resources in NF-TVET.....	54
2.6.5 Maintenance of Materials in NF-TVET Centers.....	56
2.6.6 Disposing Obsolete, Scrap of Material in Vocational Training Centers.....	58
2.7 The Role of Training Society in Material Resource Management in Non-Formal TVET.....	59
2.7.1 The Role of the principal.....	59
2.7.2 The Role of the Training Staff.....	60
2.7.3 The Role of the Supervisor.....	62
2.7.4 The Role of the Community.	63
 Chapter Three	
Presentation and Analysis of Data.....	65
3.1 Characteristic of the Respondents.....	65
 Chapter four	
Summary, Conclusions and Recommendations	95
4.1 Summary of the findings.....	95
4.2 Conclusions	99
4.3 Recommendations.....	100
References	103
Appendix 1	109
Appendix 2	113
Appendix 3	114
Appendix 4	116
Annex 1-8	118-125

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List of Tables

Table No.	Title	Page
1.	Characteristics of Respondents (Trainees)	66
2.	Sex, Age, Qualification and Year of Service of Trainers, Principals, Purchasers and Supervisors.....	68
3.	Planning of Material Resources in the Non/Formal TVET Centers.....	72
4.	State of Material Resources Availability and Utilization in Non-Formal TVET Institutes.....	77
5.	Purchasing System of Material Resources in the NFTVET Centers.....	82
6.	Activities on Maintenance and Disposal of Material and Equipment in Non-Formal TVET Institutes.....	87
7.	Storage, Distribution and Inventory of Material Resources in NFTVET Institutes.....	90

ACRONYMS and ABRIVIATIONS

GTZ	German Technical Corporation
ECBP	Engineering Capacity Building Program
IIEP	International Institute for Educational Planning
ESDP	Education Sector Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
TGE	Transitional Government of Ethiopia
MSE	Micro and Small Enterprises
DVV	German Adult Education
ILO	International Labor Organization
SDPRP	Sustainable Development and Poverty Reduction Program
MoFED	Ministry of Finance and Economic Development
UNDP	United Nation Development Program
DED	German Development Service
OECD	Organization for Economic Cooperation and Development
DFID	Department for International Development
IGA	Income Generating Activities
COMEDAF	Conference of Ministers of Education of the African Union

ABSTRACT

The major purpose of the study was to investigate the problems and possible solution of utilization of material resources in Non-formal Government TVET institutes in Addis Ababa

To this effect five government Non-formal TVET centers were selected. The training centers, trainees, and trainers were selected by using purposive sampling techniques for supervisors and purchasers were included by using availability sampling techniques. Questionnaire, interview were used as data collection instruments.

The collected data was analyzed and the result of the study indicated that, there training centers are not equipped with the necessary material resources and machineries. Income generating activities, purchasing system, maintenance skill and proper utilization of material resources are the main problems that encountered the training program. In general the problem of proper utilization of material resource is a critical issue which has to be given attention by the concerned bodies.

Based on the finding of the study, conclusions were drawn and recommendations were made.

CHPATER ONE

1.1 Background of the Study

The Problem and Its Approach

The current Technical Vocational Education and Training in Ethiopia is mostly oriented towards post secondary level training. It also center based and targets employment mostly in the formal and informal enterprises. Thus TVET provision for youth with lower education and dropouts from different levels with the TVET systems are neglected.

According to ESDP-3 document MOE (2005), the Government of Ethiopia places a very high priority on poverty reduction as part of its overall goals for socio-economic development. In line with this the Poverty Reduction Strategy has identified four priority sectors. These are: roads, education, agriculture, natural resources and health sectors.

In order to address the youth, matured men, women and other target groups to overcome the problems of unemployment and under employment, a more diversified TVET system is required. So it is important to create one coherent TVET system which includes formal, Non-formal and informal training, which allows access to formal TVET system and certification through passing the required testing.

To create quality, demand driven, and outcome based training system (that can provide adequate and skilled technical and vocational human resources at different levels for the economy) and to bring development for the industrialization process to achieve poverty

reduction program in the country, it is crucial to support the in-formal economic sector where the majority of the people are engaged.

The major objective of TVET today is to meet the challenges of preparing the workforce that plays effective role in economic development of a country.

Evans and Herry (1978:4) - mentioned the three basic objectives of any public vocational training program as:

1. Meeting the manpower needs of the society.
2. Increasing the options available to each student.
3. Serving as a motivating force to enhance all types of learning.

The ESDP-3 strategy document has outlined a comprehensive development vision for the TVET sector. It advocates a coherent system including formal and non-formal initial and further training, with open access to certification and permeability with the general and higher education systems.

To fulfill the gap between trained manpower and need of the economy it becomes important to develop a system and implementation for Non-formal TVET. Hence assessing the problems and issue of the Non-Formal TVET will bring about the identification and selection that can bring a possible solution.

From this point of view, it appears that low production growth rate brings about low industrialization, low technological background, and a relatively poor access to education. The cumulative effects of such challenges have contributed to largely growing numbers of non-productive adolescent and youth unemployment especially in Addis Ababa.

For economic and social development and acquisition of traditional handcrafts and appropriate technological skills is believed to be a necessity, because, it would provide much economic importance to the growing society. Such type of skills would be developed mostly through non-formal ways of vocational training.

At present it is clearly indicated that the majority of the Ethiopian students and adults do not have access to TVET Offerings. In particular, accessibility of the TVET to school-dropouts, unemployed, workers in industry and the MSE sector, prospective entrepreneurs, people living in rural areas and women is in very short supply.

To overcome the problems encountered by the Non-formal TVET, the New Educational and Training Policy (TGE 1994:17) States that:

Technical and Vocational Training in agriculture, industrial, construction, commerce, and home economics will be provided after primary education for those who may not continue general education.

Moreover this is highly emphasized in the TVET Strategy MOE (2006) which states:

The TVET strategy also promotes system, which is demand-driven, open, flexible, equal access, prior and life long learning possibilities. As well as it endorses recognition and integration of Formal, Non-formal and Informal TVET system that leads the country to assure poverty reduction and sustainable development.

Here the NFTVET is expected to play a key role in building the needed skilled, motivated and competent work force.

Accordingly the problem of improper utilization of material resources in the training centers is becoming of a vital significance.

Material utilization is characterized by developing its human resource, cost effectiveness, improving the system of purchasing and procurement; improving the distribution and allocation of material resources for the vocational training which demands the proper management of the NF TVET institutions.

The presence and heterogeneous uses of materials (consumable or non consumable) in a training institutes are one manifestation of how training institutes can become more diversified to meet the needs, interests, experiences and realities of individuals and groups, i.e. how vocational training institutes can become more trainee centered.

The primary concern of any vocational training institute is to get the necessary material resources at the right price, the right quality, the right source and the right quantity. Nebiyu (2000)

Hence, the Non-Formal TVET institutes are expected to operate in line with cost effective manner and in the direction of the TVET strategy in particular and within the educational policy of the country in general.

Thus problems in utilization of material resources in the vocational training institutes should be under the support and effective and efficient management of the training institutes.

1.2 Statement of the Problem

The Ethiopian government has committed itself to expanding the technical and vocational training in the country in order to meet its national, local economic growth and societal development. The production and service of high quality, competent and skilled man power is vital to create the vibrant socio economic development of the country.

At present in Addis Ababa, there are 18 government Non-formal TVET institutes offering training at different levels and occupations, among which 9 are offering at a junior level whereas the other nine offer basic skill training. When the program started in 1998; most of the trainers were under qualified, the training institutes had no adequate facilities, workshops and the need of training fields were not assessed adequately in terms of local labor market.

Similarly, since there has not been tracer study which is conducted to identify and evaluate these training programs, it is not easy to find out whether the trainees have found employment opportunities either in government, non-government or self-employment. Consequently the effectiveness of the training being offered was already under question.

Based on the above mentioned problems, the study focuses on answering the following basic questions.

1. What are the constraints for the improper utilization of material resources in the Non-Formal TVET program in Addis Ababa?
2. How do the trainees and trainers rate the state of material resources available for the implementation in the program?

3. Are there any income generating activities that can strengthen the program with the necessary material resources?
4. Are there any mechanisms and procedures for prioritizing and justifying purchasing material resources for the program?
5. What possible solutions should be taken to create an efficient way of utilizing material resources in the Non-Formal TVET institutes in Addis Ababa?

1.3 Objectives of the Study

The major objective of the study is to investigate the problems and propose possible solutions of utilization of material resources in Non-formal TVET institutes in Addis Ababa City Administration. The specific objectives of the study are:

1. To identify some major problems in utilization of material resources in the Non-formal TVET institutes in Addis Ababa.
2. To know the adequacy of the training material resources and facilities.
3. To identify the problems of material resources purchasing and distribution system of the training institutes.
4. To be cognizant of some major factors hindering the achievement of Non-formal TVET objectives and seek for a possible solutions.
5. To identify whether the trainers, trainees and staffs have information about what is expected from them in the implementation of the Non-formal training program.

1.4 Significance of the Study

Assessing the problems of utilization of material resource in technical vocational training is important, because vocational training is becoming part of a new system of social objectives and has a particular goal of producing new types of specialists who will be competitive in the labor market as soon as they finish training. To achieve this goal, it is necessary to assess the local strong side of the program and to rethink the activities of vocational training according to the requirements of the labor market.

Encouraging the effective performance of the institutions and to adjust the means in order to have common understanding in the utilization of material resources is also vital.

Therefore, in line with this reality the significance of the study is based on the following facts.

- No research was conducted on the problems and possible solutions of utilization of material resources in Non-formal TVET institutes in Addis Ababa.
- The study will help to find out to what extent the training institutes understand and appreciate the importance of cost-effectiveness in the training program.
- The researcher believes that the study may create awareness in those training institutes with the problem and therefore would serve as a spring board for further research.
- Finally, an attempt will be made to come up with recommendations which may provide certain techniques as to how trainers, trainees and supportive staffs could have an effective planning in the process of utilization of materials resources.

1.5 Delimitation of the Study

Currently, government, non-government and private organization are offering Non-formal TVET program. In Addis Ababa the main providers of Non-formal TVET program are private organizations and other agencies. However, the study focuses on the government run Non-formal to training institutes.

According to the evidence obtained from the Addis Ababa Education Bureau, TVET office, 18 Non-formal government institutes are offering training at basic and junior level. Out of the 18, 9 of them are offering training at a junior level technician in 9 sub-cities of Addis Ababa. But this study was delimited to 5 junior level institutes in 5 sub-cities to make the scope of the study manageable.

These institutes are :

1. Aware junior level TVET institute
2. Shiromeda junior level TVET institute
3. Kotebe junior level TVET institute
4. Ferensay junior level TVET institute
5. Ledeta junior level TVET institute

These junior level trainings were chosen for the reason that they have $\frac{1}{3}$ of the total Non-formal trainees in the government training institutes in the city administration.

The main training fields to be covered by the study are

- Carpentry and Painting
- Construction Technology
- Electrical Technology
- Metal Work Technology
- Plumbing

These fields were chosen because of the following reasons.

- They comprise the largest number of trainees.
- Currently, these fields of study are demand driven and are mainly preparing the trainees for self employment as well as for the labor market in the construction sector in Addis Ababa.

1.6 Limitation of the Study

In the course of his investigation, the student researcher has encountered the following constraints.

1. Shortage of time, and relevant up to date written materials in the area affected the scope and the depth of the study.
2. The sample training institutes were far from one another, therefore, transportation problem was very hard to distribute and collect the questionnaire. However, confronting with these limitations, the student researchers came up with this research work.

1.7 Research Methodology and Procedure of the Study

1.7.1 Method of the Study

The method used to conduct this research is the descriptive survey. This method was selected since it is appropriate to collect several kinds of data related with the problem under investigation. The researcher aims at identifying the prevailing major problems that cause improper utilization of material resources in the training institute and the state of the training management.

1.7.2 Population and Sampling Techniques

In the Addis Ababa City Administration there are 18 government Non-Formal TVET institutes which are located at different sub-cities. From these Non-Formal TVET institutions, nine of them are at a basic level training program and the other 9 are at a junior level TVET program. Among these nine junior level TVET institutions, five were taken as a sample. These are; Aware junior level TVET institute, Ferensay junior level TVET institute, Kotebe Junior level TVET institute, Lideta Junior level TVET institute and Sheromeda junior level TVET institute.

These training institutes were chosen using purposive sampling techniques. The reason why purposive sampling technique was used in determining the sample training institutes was because the number of fields on which training being offered and the number of trainees is almost the same in the training institutes. It is also because there are experienced trainers and supportive staffs.

The total numbers of trainees who are taking different training occupations from the sample vocational institutes are 1099. From this 109(10%) were selected. In addition 5 (100%) principals and from

within this time limit. It also helps to reach possible solutions to the basic research questions, as well as gather variety of opinions from the subjects.

The questionnaires were prepared in English language for trainers, supervisors and principals. However it was later translated to Amharic for the trainees and purchasers so that the respondents could comfortably understand the items easily.

1.7.3.2 Procedures of Data Collection

Before the actual data gathering, the questionnaires were pilot tested and reviewed by selecting one government Non-formal TVET institute. This is Kolfe Junior level training institute, in order to make essential corrections and to maintain the validity of the instruments before the final study is conducted.

The questionnaires were revised depending on comments given by the respondents in the pilot study. Consequently some items were rephrased and the sequence was rearranged. Respondents were pre-informed about the objective of the study and orientation was given to respondents as to how to fill the questionnaires so that difficulties and confusion could be avoided. When distributing the questionnaire, the time convenient for the respondents were arranged so as to maximize the rate of return.

1.7.4 Method of Data Analysis

The data collected from the subjects using questionnaire and unstructured interview were analyzed by using percentage. Percentage was used to analyze various characteristics of the sample population,

Such as sex, educational qualification, field of study, work experience and responses to questionnaires with options.

In the interpretation, the information which was obtained from the open and closed ended questionnaires, interview and observation is considered.

1.8 Operational Definition of Terms

For the purpose of clarity and consistency in the study definition of the key terms are given below.

Cooperative TVET TVET provided by and in cooperation with more than one TVET provider. Often referring to TVET that is provided in cooperation between employers and a TVET institution. (NTVETS:2006:46)

Competence Sum of interrelated abilities, position and application of knowledge, behavioral patterns and skills, and ability to combine these elements at any given time. The capacity to perform a certain task in wage labor and self employment. Competence is the outcome of TVET (Doris: 2003:2)

Flexibility Possibility that qualifications can be achieved through different types and durations of TVET, and that TVET providers design and adjust programs in accordance with the specific needs of the target groups and local labor market. (DVV: 2002:10)

Informal TVET Includes all kinds of training and learning that is not structured and following a curriculum or syllabus. Informal TVET, for example includes on job the training, self-learning, and learning by doing. (NTVET: 2006:47)

Initial TVET	TVET provided mainly to school-leavers and other youth as initial preparation for the labor market. (NTVETS: 2006:47)
Labor Market	Interaction between demand for and supply of labor. Employers and work places in need of appropriately skilled and qualified workers. The labor market represents the demand side whereas workers with their specific competences represent the supply side.. (ILO: 2003:2)
Life long learning	A concept which recognizes that people continue to learn beyond their initial phase of TVET or education. It is continuous adjustments and adaptations of people in an ever-changing technological environment. (DVV: 2002:6)
Material Resource	Components of training institutes which include all those non- human resources such as materials (often referred as a training resource) and all other goods and services available in the institution. (Gopalakrishnan; 2003:5)
Non-Formal TVET	All structured short and long term TVET program run by different providers, comprising different modes of delivery and durations of training that are not registered as formal by MOE. (NTVETS: 2006:43)

Performance based budget Method of allocation of public funds to the institution where by the volume of allocated resources is depending on the performance of the institutions. (ECBP: 2007:7)

Skill The relevant knowledge and experience needed to perform a specific task or job and/or the product of education, training and experience which together with relevant know-how, is characteristics of technical knowledge. (Doris; 2003:1)

TVET Any education, training and learning activity leading to the acquisition of knowledge, understanding and skills which are relevant for employment or self-employment. (NTVETS: 2006:50)

1.9 Organization of the Study

This paper comprises of four chapters. The first chapter deals with the back ground of the study, in which the statement of the problem, the objective of the study, significance of the study, delimitations of the study , limitation of the study, research methodology and procedures of the study, operational definition of terms and organization of the study are treated.

The second chapter consists of the review of the related literature. In this chapter main library works and other information sources with more attention to the problems and possible solutions of utilization of material resources in Non-formal TVET institutes are examined

Chapter three shows presentations of data analysis, and finally, the last chapter brings the study to an end with summary of the findings, conclusions and recommendations. In addition to the four chapters, these, references, questionnaires and other relevant documents are attached.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter deals with the review of related literature in order to find out what has been studied up to now with regards to the problems and possible solutions of utilization of material resources in Non-Formal TVET.

In reviewing the literature the student researcher has found it necessary to focus on selected topics and sub-topics:

The first section looks at the historical development of technical vocational education in Ethiopia with the concept and definition of Non-Formal TVET in developing a nation. The second part deals with the concept of material resources, its management, planning and implementation as seen by different scholars. It reviews the essentiality of purchasing, inventory and maintenance with the role to be played by training society in material resource management which enables us to identify the problem and give possible solutions in utilization of material resources in non-formal TVET.

2.1 Historical Background of Technical Vocational Education in Ethiopia

Ethiopian Education has a long history that dates back to the sixth century B.C. Since then it has gone through different levels of changes ranging from traditional to modern education MOE (1972:1).

Church education in Ethiopia, although contributed a lot, its purpose was only to propagate religion but not to link education with production and work.

But the roots of technical-vocational education were becoming observable in some area of Ethiopia.

Regarding this (Tekelehaimanot, 2005:5) noted that Axum, Lalibela Church, and Gonder which are products of arts and technology have their own places in world history.

In supporting this idea Tadesse (1972:49) noted that the Axumite artisans demonstrated a high level of technological development in the field of masonry, jewellery, minting of coins, pottery.

It is not only Axum, Lalibela Church and Gonder Palaces but, there are also many other churches which were built years back during the time when technology reached the highest stage in the Axumite kingdom. Still it is not clear why technological development has ceased in Ethiopia. There is no research study which shows what type of instruments they were using to construct the Axum obelisk and other amazing churches made of rock in different parts of the country. However, it is worth mentioning the attempts made to develop vocational education and training in the broadest sense of the term.

During the Italian Occupation (1935-1941) it is said that some TVET schools were established. The schools were established in line with the Italian colonialist ambitions. In 1941, soon after the restoration of the Ethiopian Government, schools continued to increase in number (Girma, etal 1994:9).

The government was faced with the need to reconstruct what was ruined during the war: For these reasons, it needed to educate people in many areas, including skill subjects. To fulfill the skilled man power requirements for industrial and commercial sectors vocational and technical schools were established.

According to Wanna, (1996;298) Addis Ababa Technical School, 1942, Addis Ababa Commercial school, in 1943, Addis Ababa Building Trade school in 1940, Ambo Agricultural school, in 1946, Jimma Agricultural school, 1944, W/ro Sihin Comprehensive Secondary school in 1963 and Baher Dar Poly technique school 1964 were established.

The country had come through main problems. The main problem of that time was that the program was not organized, machinery did not exist, no unified policy and standards in conducting programs of Technical Education, there was no direct responsible ministry for a definite training. Inadequate physical plan, equipment, supplies and machinery, shortage of staff, inadequate budget, inadequate level of education. (Ross , 1964:7)

In 1980s, the comprehensive school curriculum started to decline. Before the implementation of the New Education and Training Policy (1994), Ethiopia had experienced three types of TVET provision.

- Separate Technical and Vocational Schools (1940-1964)
- Comprehensive schools (1960 to 1970)
- General poly technique schools (between late 1970, and 1971)

The relatively fast increase in the number of graduates from academic or general secondary schools is not a demographic phenomenon. It is also an economic entity to the extent that people are educated but can

not be employed because of lack of skill required by the employing agencies.

The remedy for this obvious problem was, as noted by Girma , Mehari and Nigatu (1994:10-11), introducing a curriculum which enables students to acquire employable skills and improving the skill standards to the required level.

According to the National TVET Strategy, MOE (2007:7) which states that it calls for efforts to raise the quality of the Ethiopian work force to international standards, to reverse the previous neglect of industrial professions in the TVET system, and to put a substantial focus on building a culture of entrepreneurship and preparing people for self-employment.

In line with the Education and Training Policy issued in 1994, twenty five skill development institutes were opened in 1977 at different regions. Based on 1995 regulation many private institutions in Addis Ababa and in the regions started giving training in non-formal, 10^{+1} , 10^{+2} and 10^{+3} following the curriculum prepared by the Ministry of Education later, the duty of controlling and supervision was given to regional education bureaus (Teklehaimanot, 2002:7).

A high Political Power, National TVET Capacity Building Task force was established by the prime minister's office to study the ways and means of enhancing the TVET. Accordingly, a TVET proclamation was established in 2004, and TVET strategy was set and implementation of an expanded, diversified and integrated.

Technical and Vocational Education and Training (TVET) is considered as important element in the nation's economic, social and cultural development. That is why more attention is given to TVET these days.

In 2001/2002, there were 169 government and non-government institutions, which enrolled a total of 50,000 TVET trainees (including agriculture) using the new curriculum and modules of training. (Teklehaimanot, 2002:2). But in 2003/4, there were about 199 TVET institutions (government and non-government) which enrolled 106,336 trainees of which 51% were female (MOE, 2005-06).

Over the last years significant progress has been made in expanding TVET enrolment and provision from 1994 EC (2001/2002) to 1998EC (2005/2006)

- the number of TVET institutions increased by 17% annually,
- the number of teachers increased by 29% annually,
- the number of trainees increased by 34% annually,

The average number of trainees per school rose from 270 to 468 trainees, and the trainees/teacher ratio reached 20 compared with 17 in 1994. (MOE: 2007)

Overall it is unknown how many Ethiopians in total have access to relevant TVET (including formal, non-formal, and informal TVET). It is assumed, however, that demand by far exceeds the current supply and that the majority of the population is not reached by TVET offers. At the moment in particular, TVET accessible to school-drop outs, unemployed, workers in industry and the Micro and Small Enterprises (MSE) sector, prospective entrepreneurs, people living in rural areas and women is in very short supply.

By now, there are also indications that the formal and non-formal TVET lacks effectiveness and efficiency. Study has shown that many TVET graduates remain unemployed even in those occupational fields that show a high demand for skilled manpower. Furthermore, substantial resource wastages occur as a result of under utilization of equipment in public TVET institutions (MOE, 2006:9).

✓ Currently, the system aims to provide more TVET opportunities to a wider range of different target groups than before. It addresses school dropouts, people without formal education, entrepreneurs and employees, farmers and their families, unemployed people who need initial skills development or retraining to support integration into the labor market, disabled people, and marginalized groups through different forms of TVET program such as non-formal (short-term TVET).

2.2 The Concept of Non-Formal TVET

Given the increasing economic globalization and restructuring of the political and economic systems, and the requirements for knowledge and information within the system, educational needs (in terms of structure, function, curriculum and approach) at all levels. However, the systems developed for formal, non formal and informal training, specifically for adult trainers to engage in lifelong training are important.

The basic skill training needs to the youth and adults are diverse and should, therefore, be met through a variety of delivery systems. Depending on various factors (meaning and conceptual understanding), the types of Non-Formal Technical Vocational Training of country, encompasses training programs starting from primary

education dropout, to post secondary education (UNESCO, 1994:6) other writers (IIZ/DVV, 1997:1-7); Gorham, 1983:20) include skill training and life, environmental and community related learning programs.

The concept of life long training is understood but how to apply it and made the system functional and encourage people to self-learning/prior-learning and recognition is missing. Institutional training systems do not also adequately cater the skill needs of the Non-formal Technical Vocational Training.

The Non-formal TVET differs from that of formal TVET in terms of its own objective and organization set up. This mode of delivery has drawn the attention of many developing countries, and is being implemented on a large scale.

The MOE (2006:48) defines as:

Non-formal TVET includes all structured short and long term TVET programs (run by different public or private providers, comprising different modes of delivery and duration of training) that are not registered as formal TVET by the Ministry of Education, e.g. TVET in community skills training institutes. TVET programs by NGOs, employer based TVET, short-courses in commercial TVET schools, etc.

In line with this IIZ/DVV (2002:85) states that Non-formal skill training serves those citizens who did not get the chance of joining the formal TVET system.

The Non-formal Technical Vocation caters for people who are found at different age levels, with varied needs, vocations, cultural and economic backgrounds. Non-Formal way of training, wrote Hunter,

Borus, and Monnon (1974:42) fills many holes in terms of various deficiencies like the population gap which refers to the failure of formal schooling to cope with the growth of school-age population.

2.2.1 The Role of Non-Formal TVET in Developing a Nation

Ethiopia, with a population of 70 million in October 2003, is the third most populous country in Africa. With a real GDP per capital of about 100 USD, it is one of the poorest countries in the world. According to the Ethiopian Sustainable Development and Poverty Reduction Program (SDPRP), 70% of the adult population is illiterate (MOFED 2005). The labor force population (age 15-64) for the year 2005 was estimated at 37 million.

Growing by 3.1 percent annually, it was projected at 40 million in 2003. Out of these figure only half a million have access to or are enrolled in education and training. This obviously shows that the majority labor force population did not get any educational and training opportunities.

Hence, the expansion and implementation of Non-Formal TVET system in a broader and diversified way is a vital importance to increase the enrollment of the majority labor force in the TVET system in order to increase; quality and quantity of small scale industry products, agricultural out puts, employment opportunities, income, improvement of the livelihood, the competitiveness and finally contributes to the overall poverty reduction and sustainable development program (MOE 2006:8).

When we see the other side, the major employment opportunities are available in the informal economy. The services and products in the informal sector are also poor to meet the standard needs of the population and by far behind compared to other international products.

Therefore, TVET should be accessible to school-dropouts; unemployed ones, workers in industry, MSE sector, prospective entrepreneurs, people living in Urban/rural areas.

For proper implementation, identifying the target groups, stake holders, training providers, training venues and financing means of the program are important factors.

Non-Formal TVET, based on evidences of practices and unlike schooling, is marginalized at all levels with in countries despite the advantages it may accrue to its respective beneficiaries.

Due to lack of pertinent and relevant information on the significances and advantages of Non-Formal TVET, do not give the necessary support to Non-Formal TVET for its implementation and promotion.

Economists like Tadaro & Schultz (1980:24), assert that it is the accumulated knowledge and education, mother words and human capital that help to bring about change or development in a given country than is capital accumulation. On the other hand, studies conducted by the world indicates that 60 % of the economic growth achieved in industrialized countries like Japan and other Eastern Asian countries was the result of human capital, and not from natural resources or finance.

In line with this, a study was conducted with an intention to find out the state of human capital in developing countries. In this study, our country human capital composed with her neighbors and other countries was found to be the least. (UNDP, 1998).

From the perspective, where the majority of the population is poor and unskilled, which has opted for rural-centered development to achieve development and progress, it would be necessary to provide the youth and the adult with the necessary knowledge and training skills. Hence, to build human capital and bring about a rapid development, non-formal TVET mode of delivery could serve as an alternative.

The ESDP-3 strategy document has outlined a comprehensive development vision for the TVET sector. It advocates a coherent system including formal and Non-formal initial and further training. This strategy document further states that to implement the poverty reduction strategy successfully, the economy will need skilled and trained man power at all levels, top, middle, low level.

TVET proclamation No, 391/2004 was put in place to transform this sub-sector into an effective program so that it can play a major role in the process of skill development needed in all sectors of the economy.

Certainly, today, youth unemployment among school-leavers in Addis Ababa is particularly worrisome. Because, a large number of young men and women, mostly, secondary school leavers or dropouts, continue to flock into the city. In order to alleviate the unemployment problems, the Non-formal way of training adolescent, and youth in various skills should be intensified so as to benefit the bulk of the national labor force.

This is because skill training is considered to be the key to effective development strategies; Non-formal vocational training must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development. COMEDAF (w.w.w.africa-union.org.) 2007..11

However, the vocational training of skilled workers according to the requirements of the labor market is one of the major issues that need to be discussed by the social partners at all levels. Not only educational institutions, but also employers, stage agencies, parents and trainee. Market relationships have forced skill trainings to follow market demands (Semchenko, 2004:35).

2.2.2 The Profile of Non-Formal TVET Program in Addis Ababa

Soon after the establishment of the new federal political system, due attention was paid to education, and particularly to vocational education. A resolute action was taken to increase the participation at all levels of technical vocational training. The enrolment rate of the Non-Formal TVET, which was only 1463 in 2003/04, with a span of 5 years, i.e., by the year 2007/08, moved up to 1636 in Addis Ababa.

In a city where the majority of the population is poor, unskilled and which as a result lives in the informal sector development, it would be necessary to provide its society with pertinent knowledge and skills. Moreover, providing skill training to all school dropouts is a matter of immediate priority (DVV, 2002:95).

However, until recently, the Non-Formal TVET program, in Addis Ababa had the following drawbacks.

- There was lack of co-ordination and collaboration among different development offices and organizations.
- The problem of planning and implementation of development work.
- Low quality of training and inadequate instructors training.
- Not involving communities.
- Wastage of resources.
- Lack of budget allocation on training basis and not well-organized management structure and implementation strategy (DVV, 2002:96).

Because of the above mentioned reasons, it can be observed that the number of participants in the Non-Formal TVET program in the past five years was insignificant when compared with the severity of the problem in Addis Ababa.

Therefore, in order to accommodate a large number of target groups which were neglected and to efficiently and effectively use the available resources, it is very important to create a coordination mechanism in the TVET system to deliver Non-Formal training in parallel with the public and Non-public training providers based on current demand driven training. Regional TVET Authorities are therefore encouraged to cluster available training providers under the TVET colleges in a decentralized manner; this is one way of improving the TVET institutions. So that they can pro-actively respond to their local area.

Abinur and Ayele (2002:97) stated that there should not be limitation of participation in the endeavors of developing a nation. All

stakeholders must be involved. The torch of development that is achieved through learning should reach to those drop-outs.

2.2.3 Policy Support to Establish NF-TVET Institutions

The Government's national development endeavor demands the supply of skilled human power at different levels. The realization of this endeavor requires the entry of young people into agricultural related job opportunities, including small-scale industries and strategies that encourage young people to become self-employed based on a firm education and training background, including training in a wide variety of work related skills through TVET programs.

In order to train skillful and knowledgeable worker according to the interest of employee and market demand must be supported by policy. Without having legal ground, it is impossible to run and operate in TVET.

In 1994 the government promulgated the Education and Training Policy. (TGE)

The Policy envisages to:

Bring up citizens endowed with human outlook, country wide responsibility and democratic value having developed the necessary productive, creative and appreciative capacity in order to participate fruitfully in development and the utilization of resources and the environment at large. (TGE, 1994:7)

In relation to the Non-Formal TVET the ETP (1994:17) 3:2.8.2 states that

Technical and Vocational Training in agriculture, industrial arts, construction, commerce and home science will be provided after primary education for those who may not continue general education.

Federal Democratic Republic of Ethiopia has prepared proclamation No, 391/2004 to provide for the organization of TVET.

Based on the proclamation No.391/2004, the Ministry of Education has prepared National TVET Strategy (2001:10) which states that improve the quality of TVET (formal and non-formal) at all levels and make it responsive to the need of the labor market.

On the other hand these NTVETs supports the private sector to establish and strengthen their training programs.

Facilitating the expansion of relevant TVET offers in Ethiopia, in particular to target groups that have been previously neglected and labor market segments that are key to national development. Strengthen the private training market and encourage enterprises to participate in the TVET system (MOE, 2006:10).

To support the TVET program in government and non-government the system of accreditation is also established which helps to set quality bench marks for institutions, to identify and offer support to institutions so that they meet the required quality standards and to assess the level of achievement (MOE, 2006:30).

The Government's desire to improve the provision of quality education and Training resulted in the formulation of the Education and

Training Policy and the launch of five year Education Sector development program. (ESDP I, II, III). The main thrust of ESDP is to improve quality, relevance, equity and efficiency in the education and training system.

The ESDP-3 strategy document has outlined a comprehensive development vision for the TVET sector. It advocates a coherent system including formal and non-formal initial and further training, with open access to certification and permeability with the general and higher education systems. This strategy document further states that to implement the Poverty Reduction Strategy successfully, the economy will need skilled and trained manpower at all levels-top, middle, low level.



2.3 Material Resource concepts and Definitions.

Material resources are a means of supplying some want or deficiency, stock or reserve upon which one can draw when necessary (Little and others, 1956:176).

Material resources are all those non human resources such as (often referred as learning resources), the school premises (buildings) and grounds, and all other goods and materials available to the training center (Melaku , 2000:330).

In training centers, resources are the major means through which organizational activities; production, service and satisfaction ends are attainable. For the achievement of organizational objectives material resources play the major role (Durbin and others, 1989:4).

In training centers of the Non-Formal, the management of resources is concerned with two major elements. The human element including teachers, students, parents and other non-teaching employees. The non-human elements include material, money, equipment, instructional supplies, buildings, facilities and other training properties.

A material resource generally refers to any thing in the training institutes that helps to facilitate, enhance the teaching and training process.

According to UNESCO (1971:274)

Education and training is organized and sustained instruction designed to communicate a combination of knowledge, skill, development, and understand valuable phenomenon for all the activities of life.

In order to achieve the above objectives, in turn requires effective utilization of material resources at the vocational training institutes, which are usually inadequate, therefore, the available resources have to be carefully identified, organized and used to get the maximum educational outcomes.

2.3.1 Material Resource Management in Non-Formal Technical Vocational Training Centers.

The role of the training management in material resource is becoming an issue. Today, vocational managers, or training principals are involved in purchasing, coordinating, planning, moving, storing and controlling materials in an optimum manner so as to provide a pre-decided services.

According to Gopalakrishnan (2003:5), the material management, who is responsible for all interrelated functions, balances the objectives from the total organization view points so as to achieve optimum results for the organization as a whole.

It is vitally important that vocational training centers should be effectively managed. It is considered that the organization, planning and development of Non-formal technical vocational training will require a concentrated effort and involve a great amount of expenditure if the system is to play its full part in helping to satisfy the requirement of the national, regional economy.

UNESCO (1990: Report no 5) states that the success of vocational training depends on the quality of staff program, on its planning, management at national, regional and local level.

Among the authorities Ahnja (1998:342) noted as follows

Materials management is concerned with planning, and programming of materials and equipment, procurement of all materials, packaging and packing of materials, stores control and inventory control, transportation of material, handling, value analysis, disposal of scrap, supplies and salvage.

This definition of material management covers a lot of activities which is to be accomplished by a training center management.

Material management is basically most important function area of any vocational training institute to achieve the best results of the intended objectives.

As Data (1986:3) states that

Material management is thus essentially an activity of an organization for the procurement and use of materials distinctly separated from the process of procurement and use of human skills and labor for the ultimate deployment to attain some predetermined objectives.

Thus, due attention has to be given to the qualitative and quantitative supply and utilization of material resources in the process of management.

2.3.2 Material Resource Planning

Based on the objectives and requirements of the vocational trainings, the material resource planning is done. This involves estimating the cost per trainee requirements based on the nature of the discipline, preparing material budget, forecasting the levels of controlling, scheduling the orders and monitoring the performance in relation to the objectives intended.

AS IIEP/UNESCO (1995:105) noted that a plan is a package of objectives and goals, the available resources and constraints and the various policy instruments and strategies to be used within a time horizon.

When planning for specific skill training must ensure that those who have received the training are likely to get jobs in the market. This is because unit cost of educational training is relatively high at that level. What the plan should insure in that the opportunity is open to all upon hard work and capability.

The most important responsibilities of a vocational training manager and trainer are planning material resources, integrating, and executing plan. Almost all training programs because of their relatively short duration and of the prioritized control of resources require formal, detailed planning. As Kerzner (2002:533) noted the integration of the planning activities is necessary because each functional unit may develop its own planning documentation.

Planning, in general, can best be described as the function of selecting the organizational objectives, and establishing the policies, procedures and programs necessary for achieving them.

One of the objectives of planning material resources is to completely define all works, activities required for the training, that is will be readily identifiable to each participant in the training program.

According to UNESCO (2000:75) the reason for material resource planning in vocational training is that it improves efficiency of the operation and training skills.

Planning in material resources utilization also calls for the allocation of personal and financial resources. The demand-driven training method involves the training of purchasers, experts and managers in the field. Follow up efforts and support to the trainers and trainees is also essential. It is imperative that the necessary material resources for the training are assured.

This helps to identify the training outcomes what skills, knowledge and attitudes do the trainees should acquire at the end of their training and this helps to communicate with the trainers and other enterprises regarding the achievement of training objectives; further training needs, problem experienced during training and other issues.

In view of the importance of this activity and its implication for subsequent steps, administrators, trainers, and trainees of the skill training institutes, and representative number of the community should be involved and devote considerable attention to define the objectives of the vocational training program. As Melaku (2000:274) has noted that In any event, all these parties are responsible to see that the training

plan represents the needs and interests of the trainees and is communicated to all those concerned to reduce the possibility of latter misunderstanding when objectives are translated into action programs.

2.4 Financing the Non-Formal TVET Institution

The overall costs on education are on the increase. Developing countries like Ethiopia are particularly hard hit due to the economic issues. They need to improve productivity to enable them to compete in an era of rapid economic and technological change. This requires both capital investment and a workforce with the flexibility for acquiring new skills for new jobs.

Various financing strategies are practiced in the Non-Formal TVET Institutes. Public Financing is provided through public revenue (government funds). Government, also intervene in the provision of vocational training to ensure social equity for the poor in the rural, urban informal sector. UNESCO, (1994:7).

Vocational training systems can be strengthening with complementary public funds from other sources and this can be done through program reduction and resource reallocations.

Enterprise financing is also a major part of the training in which some amount of money to a central vocational training fund as taxes and these resources are used in different ways to finance training and public and private sponsored financing share the financial responsibility for vocational training centers.

With diversification of financing mechanisms, however, larger resources are available for creating more training opportunities.

Efforts have to be made to better utilize available resources by removing existing inefficiencies, stricter accountability, improving organizational structure and proper allocation of new information technology. UNESCO (1994:22)

Non-Formal TVET institutions could receive donations from various organizations, local and foreign. These donations can be in the form of equipment, training materials, personnel or even cash. Trainees pay fees for tuition, boarding and other forms.

According to the National TVET Strategy (2006:33) the resource constraints of the TVET system will be addressed by a combination of cost saving mechanism, generation of external resources into the system and diversification of funding sources for public TVET programs.

Apart from these, open and flexible nature of the TVET delivery system, the TVET system will need to diversify its financing sources

and mechanisms. The system will need to generate sufficient resources for public TVET provision.

MOE (2007:4) (noted in the TVET financing framework, that funding mechanisms should deepen the public-private partnership in TVET. Hence the private sector (employers, private training providers) is expected to strengthen its responsibility for TVET delivery and TVET financing, while the public sector has to ensure a conducive environment for private investment in TVET.

The Non-formal vocational training should be guided by the effective and efficient use of scarce resource. Based on the guideline with government policy and efforts to allocate resources based on clearly set performance criteria and achieved results MOE (2007:5).

Identifying alternative methods for financing the Non-formal TVET and exploring how the existing financial resources could optionally be utilized, depend on methodologies of training delivery and the venues where the training is delivered.

The modest of delivery of TVET have a direct impart on the cost of training, the control and regulating mechanisms, responsibility for training provision and also to who contribute towards the cost (Gaminie , 2006:77).

The amount remitted by the Non-formal TVET centers to 1GA account includes collection of student registration, cost sharing and money received by selling products made by students during their practical work.

Hence the management of the Non-formal TVET providers, staff as well as institutional structures and procedures has to be sufficiently competent to deal with this increased insecurity, which demands higher flexibility in planning and execution of TVET provision.

2.4.1 Cooperative Training Between Non-Formal TVET Training Institutions and Enterprises.

The financial resources of the Non-Formal TVET centers are extremely limited. With out external cooperation, the public budget will not be able to develop the vocational training system into an effective tool to enhance the vocational competencies of the popular and thus contribute to diversification and improved quality products and services in the country.

Cooperative training (CT) encompasses all forms of training, which are conducted through collaboration of TVET institutions and enterprises, i.e. training that takes places alternately in training institutes and in the real life environment of the workplace.

As noted in the NTVETS (2007:11) most of the training occurs in the enterprise where practical skills and applications of theory takes place.

In order to keep training costs as low as possible, the NFTVET sleeked to cooperate with other donors, and with the private sector.

According to MOE, (2006:24)

Cooperative TVET is made of TVET provided in partnership between enterprises and TVET institutions. Usually, the bulk practical training is takes place in an enterprise, while theory and entail practical exposure Is provided by the TVET institution.

The training institutions will benefit from enterprises participation in using cooperative training (CT) in the following ways: MOE, (2007:28)

- Trainees are more motivated to study, learn more easily.
- Trainers remain up-to-date on working technologies, processes and methods used in enterprises.
- CT contributes to the improvement of training quality during the training process and training outcomes.
- More trainees can be accommodated without additional materials (physical, financial or personnel resources).
- Investments for expensive workshop and material resources at training institutions can be reduced if most practical training takes place in the enterprises rather than at the training institutions.

In the forms of cooperative training tend to be more cost-effective than school-based TVET, as TVET institutions need not invest in sophisticated machinery and training periods in the institutions are shorter (MOE,2006:24) .

Cooperative training needs cooperation between enterprises and TVET institutions on training deliver, in the phase of planning, implementation and assessment of cooperative training.

As Folkmor, .(2006:13) has noted that cooperative training is crucial importance not only at the level of individual enterprises, but for boosting the country's competitiveness in global markets and fostering economic growth and social development as a whole.



2.5 The Practice of Financing the TVET Centers in Some Selected Countries.

Skill requirements these days become more complex, that vocational training institutes need to be equipped with new and modern training methods, equipment and machines. This led to questions raised about the cost of training and the mechanisms of financing it. Various financing strategies are practiced in different countries strategies are practiced in different countries of the world. Some of them are well known mechanisms for financing TVET have been categorized in the following four types UNESCO (1996:17)

1. Public financing
2. Enterprise financing
3. Private and public sponsored financing
4. International Donor Assistance

In most countries the budget for TVET is from public sources. The volume of budget could be small or large depending on the economic level of the country.

2.5.1 Botswana - Training with Production

Botswana is one of the poor countries with considerable changes in its vocational training. The establishment of the vocational training Act No.22 of 1998, thus guide the Brigades 'Training with production' in Botswana. The Botswana Training Authority was established in 2000 to coordinate and regulate vocational training.

Training with production evolved due to the political, social, economic and technological development of the era of a global village (Mahube, 2006:67)

At inception the young primary school leavers were enrolled into an on-the-job apprenticeship type of training under which they had 20% classroom learning and 80% production work. The trainees engaged in building projects for public authorities at relatively low costs and the learning derived were used to cover costs of training they received

This training with production has helped the training centers and training.

- Fill a vacuum in skill development for many young people by providing theoretical, practical and on-the-job training for primary school leavers in the fields such as construction, mechanical, textiles and agricultures.
- Contribute to employment and income generation at the village level, by establishing of production activities.
- Act as 'social safety value' harnessing the energies of large numbers of youth who might have otherwise become idle, disaffected and alienated.

This Brigades as community based organization received a lot of support from the International Donor Community, which provided funding and technical support up to the early 90s when they withdrew support on the basis that Botswana had developed to become a meddle-income country.

This has bought the following advantages.

- The unit is required to tend for construction jobs.

- The jobs secured by the unit are to be done by trainees as part of their on-the-job training.
- The trainees go out to the projects accompanied by their instructors.
- The funds generated from the projects are used to improve training facilities such as buying special tools, materials.
- The trainees are paid allowances when they engage in production activities.

This enables the trainees to sharpen their skills and gain experience (Mahube, 2006:69).

2.5.2 MALAWI - The Need for Production Unit

The need for the production unit was based on the fact that the training institutions face problems of acquiring adequate materials and supplies especially hand tools and raw materials for practical exercise, modern production techniques, and for the development of trainee manipulative skills.

The funds which are generated are used to purchase training materials such as hand tools, equipment, utilities, part-time teachers and employees under the production unit in Malawi.

This has its own contribution to the training system for the following advantages in Malawi.

- Training programs have become meaningful, theoretical knowledge and practical skills are proven.
- Trainees are motivated; enable them to see tangible evidence of the value of their skills.
- Trainers derived professional job satisfaction.

- The fund supplement the low funding the training centers get from government.
- Items for sale are displayed on public 'open-days'

In order to strengthen the income generating activities and to make production supported training effective and efficient, guidelines should be established (Godfrey, 2006:72).

2.5.3 Philippines - Sources of Revenue in TVET

Philippines is one of the developing country which conducts the dual training program which is a species type of training delivery system for Technical Vocational Education and Training.

It combines two places of training; the in-school training and in-plant training based on a training plan collaborating designed and implemented by an accredited dual training institution and dual training business establishment.

Roberto Niez (2006:62) indicates that the sources of revenue are of:

- Students contribution (Training facilities fee; cost-share miscellaneous fees)
- Industry tie-up training
- Income generating activities
- Dual Training fund

Having recognized the need the training schools had engaged in different fund sourcing methods; the revenue (income) of the school increases practically.

The Philippines TVET benefited the following advantages for the institutions.

- Program is more relevant and responsive to industry needs.

- Trainee acquires quality training and develops proper knowledge, skill, attitudes and work habits.
- The institution can accommodate more trainees.
- Sharing of Expertise with company experts.
- Guaranteed updated curriculum.
- Regular Feedback from the industry.
- Exposure to the latest technology.
- Employability of the graduates. Roberto (2006:64).

As experienced, it is noted that the cost of training reduced additional budget requirement for the schools while the cost of training for new workers in the company likewise is minimized. These generate savings.

2.5.4 Learned Experiences on Financing of TVET from Botswana, Malawi, and Philippines.

As we have seen the experiences of developing countries on financing, of TVET, we can learn the following point from their experience.

- Sources of funding are diversified.
- Enterprise has contribution in the training system.
- Income of TVET institutions from education and training serves for individuals and organizations.
- Training is directly geared to practical activities.
- Income of TVET institutions have increased from Non-training products and services production of parts, maintenance and repair.
- Donation
- Production units play a great role in financing the institutions.

With diversification of financing mechanisms however, larger resources are available for creating more training opportunities. But the problems of financing vocational training can not be solved entirely through diversification of resources. Efforts have to be made to better

utilization of available resources by removing existing inefficiencies, stricter accountability, improving organizational structures and should remain flexible with the ability to adapt to the changing social, economic and technological requirements of the country.

2.6 Material Purchasing for Non-Formal TVET

Any organization as a functional system to fulfill its objectives needs input in material and non-material forms. The inputs obtained by an organization through procurement other means if acquisition systems with in must be as much as possible of high relevant in order to effectively and efficiently serve the internal/ external environment.

Procuring materials and services for the training does not differ in principle from procuring them for the rest of the world. The objectives are the same to obtain what is needed at the right time and in such a way as to ensure the best value for money spent. Peter and David (1985:67)

A well known definition of procurement objective is: "To purchase the right quality of material, at the right time in the right quantity from the right source, at the right price". This statement can be summarized in the goals of purchasing (Gopalkrishnan & Sundarabsan. 2003: 55).

To enhance and facilitate the training program, a certain quality level is required for each material resource input; inferior quality input results in inferior output that could not fulfill its objectives.

The basic objectives of the purchasing function are to ensure continuity of supply of raw materials. Sub-contracted items and spare

parts at the same time reduce the ultimate cost of the vocational training system in puts.

As Harold (2002:171) stated that material purchasing for training requires the ability to negotiate the necessary resources and commitments from key personnel in various support organizations. Cooperation with other staff units and individuals with in the training center is vital to success.

Productivity and efficiency of supply management is closely related to budgeting money that is available to a person or an organization and a plan of how it will be spent over a period of time and material and non-material wastages, skilled output standard of Non-Formal level technician who is responsible to bring change in social and economic aspects.

Nebiyou (2000:299) has reviewed that cost analysis should be made to determined what has to be purchased. on the other hand technical know-how, capacity utilization factors also influence management decision to make or buy specific training material. Advantage and disadvantages should have to be quantified before any decision is made.

2.6.1 Effective Utilization of Material Resource in NF TVET

Effectiveness for any organization is often defined as the extent to which goals have been met. Institutions must be able to achieve their goals with in the constraints of limited resources.

Similarly, the utilization of material resources effectively and efficiently benefits the whole society and helps to achieve the objective of the training system in general and training centers in particular.

Maximizing the use of available resources through more efficient use of staff, space, equipment, and facilities will help in making delivery more cost effective.

The success of the teaching and training process is particularly dependent upon how the vocational training institutes are capable to manage and utilize their scarce resources effectively and efficiently. Conversely the improper and poor handling and using of material resources are liable to the failure. (Candoli and others, 1984:219)

Most of these Non-Formal TVET institutes operate one shift, five days a week. Facilities are not systematically used for other purposes, for example for short skill training, during vocation time and when trainees attend industrial apprenticeship.

As a consequence, most of the public Non-Formal TVET institutions stand idle for much of the day and during weekends and are entirely closed for training during as much as one third of the year.

Knight (1993:15) regarding the utilization of resource has also stated, training institutions have a great duty and responsibility in managing, utilizing and controlling the human, financial and material resources for better performance. In addition to this Mbamba, (1992:17) as maintained the management and utilization of scarce resource in training should be the major role played by training institutes in order to ensure sustainable development.

To be successful, public training should concentrate on choosing appropriate objectives, improving market orientation and matching policies in accordance with labor market needs using resources efficiently and diversifying sources of finances.

According to Yekunoamlak (2000:88) planning is crucial for educational and training institutes because of scarcity of resources and uncertainty of the future.

The utilization of expensive materials and machinery in NF TVET necessitates vocational education planners to wisely allocate the availability resources into various programs.

This helps the trainer to exactly identify his resources availability so that he can plan, his purchases and long term contracts in the most optimum manner taking into account price trends, market position. (www.africa-union .org)

UNESCO (2002:5) indicates that the planning construction and equipping of facilities should be carried out in collaboration with other skill holder like industries, training providers, communities.

Vocational Training is very costly compared with elementary, primary or academic education. Some reasons for these are;

- A low trainer - trainee - ratio
 - Costly training facilities (workshop, buildings and required infrastructure)
 - Costly training equipment (tools, machines)
 - Higher bills for running costs (lubricants, diesel, electricity)
 - The continuous use of raw materials for training purposes.
- DED,(2000:230)

To best use scarce resources, all necessary efforts will be undertaken to increase efficiency in the TVET system. NTVET strategy (2006:18)

The need to improve the quality of trainees to compete effectively has become very important to maintain and improve the training institute effectiveness, because effective training can minimize training costs.

2.6.2 Challenges/Problems Associated with the Resource Utilization in Non-Formal TVET In Addis Ababa

Material resource management is a vital part of every organization. It is a specialized, systematic and scientific function of a group of people. It is concerned with what type of materials to get, how much to get, when and where to get, at what price.

Equipping training institutions in a cost-effective way of management is becoming a necessary issue in facilitating the NF TVET training centers.

Nevertheless, it is not only the economic problem and low financial base, but also the lack of appropriate financial management of training institution that result in poor performance of the training program.

In order to avoid the problems related to mismanagement should be provided with the necessary courses of financial management. Solomon, (2000:16)

This may ultimately help the principal and other personnel in the training institution to use their limited resources more effectively and efficiently.

There are indications that some equipment purchased by or for public training institutions tends to be not fully aligned with the demand of the local labor market and not in tune with effective and rational training workshop organization.

The effective training has an equity dimension. In the world of finite resources, training institutes may have to make some choices about how to best use their resources for this good communities and societies. Ray and Others (2001:12)

But in the process of purchasing, Non-Formal TVET institutes have many problems: Some of them are stated below

- The lack of budget for purchasing material resources.
- Lack of adequate and trained man power.
- Problems in making clear specification and standardization of material.
- Inadequate knowledge in policies, principals, roles and regulations regarding purchasing and management of material resources in training institutions.
- The inconvenience of storage for material resources.
- The problem of not closing accounts in time.
- Inadequate planning budgeting, auditing, reporting and inventory control systems are the major ones.

Available supervision, reports and evidences indicate that till the mid of 2003 due emphasis was laid on the practical training and graduates from these institutions proved themselves competent and up to the standard. However, with the growth in trainee's population, most of these institutions were forced to stretch their existing facilities to the limit. This was particularly detrimental to the practical side of the

training program. As NF-TVET is basically a practical subject, trainees must be taught to appreciate the technical vocational problems of the country and be aware of what will be expected of them after graduation.

Continuous efforts will be necessary to make the best use of scarce resources and to drive towards maximizing both efficiency and effectiveness. Providers of training will be measured by their ability to make the best use of scarce resources both by the government and in the eyes of the public.

2.6.3 Storage and Distribution of Material Resources

Store keeping is the function of receiving, storing and issuing of materials. In TVET, the materials (raw materials, finished components, tools, general stores) represent a very large investment. It is, therefore, important that strict orderliness and method are employed to ensure accuracy, preservation and safety at all stages of material movement and custody.

In the stores training materials have to be stored properly until drawn by the various using departments. Gopalakrishnan (2003:5)

Materials are equivalent to money and great attention has to be paid to the proper storage so that they are free from damage and possibilities of pilferage. At the same time the right type of equipment should be used for storage and handling so that material handling expenses are kept to the minimum.

Procedures for distribution or issuing of different materials such as tools, raw materials, finished components etc... should be established.

The tools to be issued on loan, and the raw material, finished components to be issued on requisition. Peter & David(1985:14)

Good storage systems can greatly assist the daily activities of the training institution in accurate material resource status reports, timely detection of discrepancies, and prompt clearance of materials. It is also essential that from time to time material resource management studies should be carried out in the stores so that systems and procedures are stream lined.

The training institutes explicitly demand prior approval and thoroughly check the quality and price of each material resource bought. DED (2000:221)

2.6.4 Inventory control of Material Resources in NF TVET

Inventory is maintained basically for the operational smoothness. After material resources have been purchased for the training institute, then have to be recorded as the institute's property. It is the trainers and training institute manager responsibility to make sure that the material is kept properly. Registration of material is a basic but very important management tool which helps to organize and monitor.

DED (2000:6) notifies that the controlling system of material resources in vocational trainings may also reflect how well equipment, machinery and consumable materials for the training are being looked after by staff of the institute; as well as properly recorded material resources are an immense help for the training center planning of its yearly budget. It is strongly recommended to maintain effective stock record systems for the different consumables which vocational institutes in

NF TVET deal with, like lumber, painting and finishing material, iron rods, sand, cement, blocks.

As experience shows, goods and materials that are to be stored for a longer period of time tend to be diminish or disappear completely.

The role of inventory and control of material resources becomes vital for its application on effective stock record system, operating on a continuous basis, should use the training's resources for the purpose they were originally intended. DED (2000:9).

Apart from checking the amount of material resources, actually present against the number of item listed in the stock books, the present stock take should also indicate whether property is damaged but still existing or is missing.

As noted by DED (2000:240) supplies and materials for future use must be kept properly and safely and must be protected from any damage.

Tools and equipment have to be locked away and kept in secured rooms or cabinets at the end of each training day. This is without doubt the responsibility of the workshop instructor and adequate supervision and monitoring is a must for the trade.

The improper use of tools, machineries, and raw materials are traditional weak points of training institute - just to mention a few - and therefore need extra attention of management. Clear regulations and rules, which have to be adhered to by everybody, will certainly help in the process of controlling of training property.

2.6.5 Maintenance of Materials in NF Vocational Training Institutes

The timely and regular maintenance of buildings, equipment, tools, and machineries is a function and responsibility of the trainers, trainees, and the training institute management. Successful training delivery requires adequate facilities. Well managed and organized training facilities promote skills.

An item is considered to have failed under the following three conditions.

- When it becomes completely in operable.
- When it is still operable but is no longer to perform its intended function satisfactorily.
- When serious deterioration has made it unreliable run safe for continued use, thus necessitating its immediate removal from service for repair or replacement. ECBP (2006:3)

Machines and equipment used in the NF TVET workshops should be geared to the needs of the workplace, and should simulate it as closely as possible, trainees should be capable of operating and maintaining the equipment.

Failures lower productivity by decreasing availability of a facility, therefore, to curb this inevitable problem well planned maintenance policy and strategy should be implemented.

Special attention is to be paid to maintenance. Maintenance is not only checking, adjusting, and replacing worn parts, but it is a total approach aimed at reducing down time.

According to ECBP (2006) Maintenance Guideline,

Maintenance is an activity that ensures the optional availability of equipment, utilities and related buildings for the purposes they were designed for, at optional cost and under satisfactory conditions of quality, safety and protection of the environment.

This approach involves all available procedures and expertise in a systematic and scientific manner designed to prolong the lifetime of equipment, assuming operational readiness, an optional availability for training or production at all times. Safety of persons and machines is paramount.

Obviously values can only be transferred from trainers to trainees, if they are applied to the best by the instructions themselves about the responsibility to take care of material and equipment, the responsibility to return tools in clean and good condition, the responsibility to repair and maintain damaged properly, the responsibility to act economically and friendly (reuse, reduce, recycle) (DED ,2000:24).

Sustained efforts are necessary to promote maintenance and make all staff aware of the vital importance of maintenance for sound practical training delivery. Preparing a maintenance plan and identifying the types of maintenance in an organized way is expected from the management in the training centers.

Therefore, management, instructors, workshop supervisors and assistants, cleaners and trainees are expected to participate in the maintenance activities identified for their level of responsibility.

Developing a maintenance culture, changing attitudes and developing maintenance skills of trainers, trainees and other operators who are using the facilities is essential.

Neglecting maintenance can lead to frequent break downs, costly repairs and faster deterioration of valuable equipment, lack of regular maintenance causes high down time of equipment.

2.6.6 Disposing Obsolete, Scrap of Material in Vocational Training Institutes

Disposal action follows when the scrap can not be utilized within the training institutes. In some cases, workshop space and stores are blocked by equipment which is not in use for various reasons. Some has become unserviceable, some technically obsolete. Other equipment is not needed anymore because the institution has changed its profile and stopped offering the relevant course. Some equipment is not needed, or was faulty or incomplete on delivery. Some equipment may just be in the wrong place and is badly needed in other institution.

ECBP (2006:22) recommends to institutions to dispose of unused equipment and materials depending on their conditions, these items should be:

- re furbished and brought back in use,
- re allocated to other institutions,
- rented out to small scale industries,
- sold or auctioned to the public,
- completely written off and sent to scrap,

Gopalakmshnan (2003:181) states that an effective disposal requires a compact disposal organization reporting to the manager, continuous market survey on the prices of various categories of scrap generated in the plant and constant touch with the communities, industries which generate similar scrap and ;with the end-users.

To facilitate and support the system of disposal, MOE(2007:22) stated that:

In the past, administrative regulations did not permit the disposal of un used equipment or regulations were unclear and nobody was prepared to take responsibility. In its role as the owner of public training institutions and all their assets, the government has a legitimate interest in protecting the assets of the training institutions and preventing malpractice with the growing autonomy of TVET institutions relevant regulations will be revised.

This shows that the institutions can have a chance of treating all scraps and dispose materials in its appropriate time and place.

2.7 The Role of Training society in Material Resource Management in Non-Formal TVET

2.7.1The Role of The Principal in NF TVET

The quality of the management and leadership support is another critical element in training process, both for the trainers and trainees in the NF TVET institutions..

To empower the management of the training institutions to actively lead the transformation, process management capacity building is provided based on thorough problem and needs analysis.

The NF TVET goals and objectives represent the desired out comes of vocational education in training institutes. These desired outcomes of training institutes could not be realized without successful organization and management of vocational training resources.

The essential job of the training institute management is, therefore, to effectively and efficiently organize and manage vocational training resources so that vocational training institutes' objective can be successfully achieved. This involves the principal of the training institute in the performance of many tasks.

Gopalakrishnan (2003:99) has clarified, when a manager responsibility for all functions, the departments under him create an identity which is common. This results in better support and cooperation in the accomplishment of the objective of the vocational training institute. The user departments also find that they have to approach one department for discussing and solving their material resource problems. This creates an atmosphere of trust and generally better relationship between the user departments and the principal of the institute.

It is believed that the capacity of the principal is determinant factor to improve the over all process of training.

2.7.2 The Role of the Training Staff

On any educational level, the teacher and the supportive staff are the main spring of the training institute activities. "Educational objectives are realized only in so far as individuals in the process motivate the learners to benefit from the education process" (Crow and others 1961:271).

The above statement shows that for the objective of any training to be realized the role played by the staff is great. Besides, the participation of the staff as a whole in administrative activities is greatly expected from the staff members for smooth implementation of vocational training process.

UNESCO (1985:77) as investigated one of the actual education problem today is the inadequacy of up to date information needed by the training managers and the role of the staff in each activities, planning, purchasing and facilitating the process of training, data collection and disseminating available information. In addition to this UNESCO (1985:57) also in his module of education as stated about the role of the teacher/trainer in particular in managing educational resources underlined that the participation of the teacher in planning, administrative and implementing of the training materials with a minimum cost should be given attention for its great benefit.

Further more the administrative responsibility of the vocational training institute should be realized; the training society, trainers, trainees, the administrative workers such as; storekeepers, tool keepers, purchasers, guards have to work together. Although the principal should oversee the task of the care takers and the cleaning staff to guarantee that material resources are in the right place at the right time, building and workshops are well maintained, and to ensure that there are effective ways of selecting, storing, maintaining, using materials and equipment (Dean, 1985:106).

The above statement implies that the training material resources management, the role-played by trainers, non-trainer staffs and trainees ensure the effective management practice of the vocational training institute.

2.7.3 The Role of the Supervisor

Supervisor is the first level of management in the organization and is concerned with encouraging the members of a work unit to contribute positively towards accomplishing the organizations goals and objectives.

Successful supervision requires the knowledge of Education and ability to use a multitude of skills. Designing a basic skill required in successful supervision, understanding the work of supervision, planning, controlling, making good decisions and communicating with people and handling conflict (Leslie and Lloyd ,1999:6).

The supervisor in the Non-Formal TVET plays a very active part in developing budget for material resources and discusses about it with the departments.

Improving the program that often involve supervisions include cost reduction programs and programs aimed at improving safety on tools, machineries, methods and workshop sanitations and maintenance programs.

Leslie and Lloyd (1999: 52) states that:

The supervisor has a great role in the production planning of the training, primarily involves determining the necessary materials, facilities and human resources.

Resources allocation in the training system should be supported with the proper involvement of a supervisor. This can be an effective allocation of people, materials and equipment so as to successfully meet the objectives that have been established.

UNESCO (2002) on the TVET for 21st century recommendation reports that TVET partners will be required to increase constantly their knowledge and expertise in many areas affecting TVET systems. Effective mechanisms must therefore be established to share experiences and expertise through on going research of particular relevance for key policy issues.

2.7.4 The Role of the Community in NF TVET Institutes.

Vocational Training institutes should not become institutions that operate in isolation from their surrounding communities. It is of great importance for vocational training institute to have activities participating and responsible board of management where different kind of people from the local community and staff from the institute are exploited and where ideas, desires, expectations, problem and their possible solutions be discussed. This is the place where the institute, and subsequently, objectives to support that vision, should be developed.

DED- (2000:4) clarifies that in letting communities participate in the ways for the development of the vocational institute, they tend to develop ownership feeling of the training institute, they start to care more and more about 'their institute'

Apart from the trainees, the real users of the training institutes are, or should be the community. The training institute and the communities share the reduction of un employment of their youngsters; they must, therefore, act in most coherent and coordinated manner possible. The first task of the staff as well as the supervisors is to organize the

information of communities by establishing and maintaining regular contacts with communities with different mechanisms.

It is the people in this community that sends its children to the training institutes; and it is the people of this community with whom the training staff personnel are likely to have the greatest contact. The local community members are the ones with whom the staff needs to communicate the most, since their opinions about the training are likely to be most influential. (Melaku: 2000:340)

The involvement of the community in vocational training affairs should be viewed primarily as a means rather than an end. Any community involvement should ultimately result in improving vocational training.

Through participation by community members, the vocational training institute will receive ideas, expertise and human and material resources, all of which will improve the training institute decision making and its training programs. This helps, community members will be in a much better position to evaluate the training institutes fairly and effectively.

Melaku (2000:243) has emphasized that an excellent means by which the institute can involve community members at large is by encouraging them to serve as resource persons or helpers.

Professional workers, craftsmen, individuals who have traveled, and those who have a particular area of expertise could serve as resource persons and offer a great deal to supplement a vocational curriculum and training material resources.

CHAPTER THREE

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation, analysis and interpretation of the data on problems and possible solutions of utilization of Material Resources in Non-Formal TVET institutions in Addis Ababa from the sample trainees, trainers, principals, purchasers and supervisions.

The data obtained through questionnaire and interview were analyzed and interpreted. The data were gathered through questionnaire, which were filled in by trainees, trainers and principals of the training institutes. Interview was conducted to purchasers and supervisors at the sub-city and Addis Ababa Education Bureau level.

Hence, the basic questions with the objective of the study raised were given appropriate treatment

3.1 Characteristics of the Respondents

Out of the 144 intended respondents to whom the questionnaire and interview were distributed, and addressed, all 144(100%) filled out the questionnaires properly and returned them. The interview was attended to fully. The respondents were 109 trainees, 18 trainers, 5 principals, 5 purchasers and 7 supervisors from 5 samples vocational training institutes sub cities and Education Bureau.

These respondents were selected for the study because of the fact that they were involved directly or indirectly in the training activities. So, that it would be helpful to identify to the problem of material resources utilization in the Non-formal Technical Vocational Training in Addis Ababa based on the responses obtained from the sample respondents, data analysis and interpretation are made as follows:

Table 1
Characteristics of Respondents (Trainees)

No	Item	Respondents	
		No	%
1	Sex		
	a) Male	77	70.64
	b) Female	32	29.36
	Total	109	100
2	Age		
	a) below 20	46	42.20
	b) 21-30	59	54.13
	c) 31-40	2	1.83
	d) 41-50	1	0.92
	e) 51 and above	1	0.92
	Total	109	100
3	Field of Study		
	- Carpentry	12	11.00
	- Plumbing	28	25.69
	- Electricity	32	29.36
	- Metal Work	19	17.43
	- Construction	18	16.52
	Total	109	100

Out of the 109 trainees who responded to the questionnaire, 77(70.64 %) were male and 32(29.36 %) were females trainees. This indicates that the training program of the Non-Formal TVET institutes were predominantly males. Concerning the age, 46(42.20 %) were below 20 years old, 59(54.13 %) were between 21 to 30 years old, 2(1.83 %) were between 31 to 40 years old, 1 (0.92 %) were between 41 to 50 years old and 1(0.92 %) were 51 and above.

The age variation of the trainees may imply that there could be a lot of potential and energy to the training program that the different age groups could exchange. Regarding their field of study Carpentry trainees, 12 (11.00 %), Plumbing technology 28(25.69 %), Electrical technology 32(29.36 %), Metal technology 19(17.43 %) and Construction technology were 18(16.52 %) of the total respondents of trainees. This indicates that more trainees' interest or choice of career is to Electricity which is highly demanded in the level market now.

Table 2
Sex, Age, qualification and year of service of Trainers, Principals, Purchasers and Supervisors.

No	Item	RESPONDENTS								Total
		Trainers		Principals		Purchasers		Supervisors		
		NO	%	NO	%	NO	%	NO	%	
1	Sex									
	a) Male	18	88.89	5	100			7	100	
	b) Female	2	11.11	-	-			-	-	
	Total	Total	100	5	100		100	7	100	
2	Age									
	a) below 20	-	-	-	-	-	-	-	-	
	b) 21-30	6	33.33	-	-	-	-	-	-	
	c) 31-40	10	55.56	4	80	2	40	-	-	
	d) 41-50	2	11.11	1	20	3	60	2	28.57	
	e) 51 and above	-	-	-	-	-	-	5	71.43	
	Total	18	100	5	100	5	100	7	100	
3	Qualification									
	a) 12 complete	-	-	-	-	4	80	-	-	
	b) Certificate TVET	2	11.11	1	20	1	20	-	-	
	c) Diploma	12	66.67	3	60	-	-	-	-	
	d) B.A/B.S.C	4	22.22	1	20	-	-	7	100	
	e) Others	-	-	-	-	-	-	-	-	
	Total	18	100	5	100	5	100	7	100	
4	Years of Service									
	a) below 5 years	2	11.11	-	-	-	-	-	-	
	b) 6-10 years	6	33.33	4	80	-	-	-	-	
	c) 11-15 years	9	50.00	1	20	1	20	-	-	
	d) 16-20 years	1	5.56	-	-	1	20	-	-	
	e) 21 and above	-	-	-	-	3	60	7	100	
	Total	18	100	5	100	5	100	7	100	

Item 1 of Table 2 describes the sex of trainers, 18(88.89 %) were males, 2(11.11 %) were females, all 5(100 %) of the principals were males, while supervisors from the sub-city and Addis Ababa Education Bureau 7(100 %) were males.

As indicated in Table 2, there are more male trainers, principals and supervisors in the training program. Whereas there were more female purchasers. Concerning the age, 6(33.33 %) of the trainers were between 21 to 30 years old, 10(55.56 %) were between 31 to 40 years

old and 2(11.11 %) were between 41 to 50 years old. No respondent was above 51 years of age.

Regarding the age of principals 4(80%) were between 31 to 40 years old and 1 (20 %) was between 41 to 50 years old. Purchasers 2(40%) were between 31 to 40 years old and 3(60 %) were between 41 to 50 years old. On the part of the supervision 2(28-57 %) were between 41 to 50 years old and 5(71.43 %) were between 51 and above.

The age variation of Trainers, Principal, Purchasers and Supervisors may imply that there could be a lot of information and experience that the different age groups could exchange.

In the same Table 2, item 3 shows a breakdown of qualification of trainers, principals, purchasers and supervisors. In this category 2(11.11 %) of the trainers were TVET certificate graduates; 12(66.67 %) were diploma holders, whereas 4 (22.22 %) were first degree holders.

Concerning the qualification of principals; 1(20 %) was TVET certificate graduate; 3(60 %) were diploma holders; and 1(20 %) was first degree holder. On the part of the purchasers, 4(80 %) were grade 12 complete; 1(20 %) was TVET certificate graduate. Supervisors from the sub-cities and Addis Ababa Education Bureau, both or 7(100%) were first degree holders.

This reflects that there are the required graduates and well trained technical-vocational trainers, principals and supervisors. The minimum requirement set by Ministry of Education, trainers and principals who are participating in the Non-Formal Technical

Vocational Training Institute should have a minimum of diploma graduate with vocational skills. Whereas to be a supervisor of NF-TVET first degree is required. The finding shows that the purchasers in these training institutes don't meet the requirement set by the Ministry of Education. Even though, the average qualifications of the purchaser were diploma level, among them there was no anyone who is professional in purchasing. This indicates there is further need for training professional purchasers.

Item 4 of Table 2 shows the variation of service years of the respondents, 2(11.11 %) of the trainers served below 5 years, 6(33.33 %) served for 6 to 10 years, 9(50.00 %) served for 11 to 15 years; 1(5.56 %) served for 16 to 20 years; nobody have served for 21 and above years.

The service years of the principals; 4(80 %) served for 6 to 10 years; 1(20 %) served for 11 to 15 years;

In regard to the purchasers 1(20 %) served for 11 to 15 years; 1(20 %) served for 16 to 20 years and the rest 3(60 %) served by 21 and above years. On the part of the supervisors; all of them; 7(100 %) served for 21 and above years.

Hence, it is believed that when trainers and principals are experienced, the better they facilitate, direct and manage their major fields of study in the process of vocational training. This will assure to relate the theoretical aspect with the practical aspect of the training activities.

Concerning the supervisors who are working in Non-Formal Technical Vocational Training, the year of services reflect their rich experience that might enable them to identify and recognize areas of problems

which can or cannot be solved easily within the limit of their authority and responsibility.

Regarding the purchasers, the years of services they acquired in different jobs have no relationship with the present positions they possess. There is a shortage of purchase graduates and well-trained task force at the sample training institute. This has a negative effect on the training program.

Table 3
Planning of Material Resources in the Non-Formal

No	Item	RESPONDENTS					
		Trainers		Principals		Purchasers	
		NO	%	NO	%	NO	%
1	Efficiency of the principal in coordinating the staff in planning the material resources.						
	a) high	38	34.86	1	5.56	1	20
	b) moderate	47	43.12	7	38.83	2	40
	c) low	13	11.93	6	22.22	1	20
	d) I do not know	11	10.09	4		2	20
	Total	109	100	18	100	5	100
2	Actual participation of training center staff members in material resource management						
	a) high	45	41.25	3	16.66	1	20
	b) average	53	48.62	12	66.67	4	80
	c) low	6	5.52	3	16.67	-	-
	d) I don't know	5	4.58	-		-	-
	Total	109	100	18	100	5	100
3	To what extent does the training center prioritize the material resource purchasing based on objective of the training system?						
	a) high	19	17.43	4	22.22	1	20
	b) average	34	31.19	1	5.56	3	60
	c) low	41	37.60	11	61.11	-	-
	d) I don't know	6	5.50	2	11.11	1	20
	Total	109	100	18	100	5	100
4	Problems observed in planning of material resources						
	a) Lack of skill in planning	18	16.51	7	38.89	1	20
	b) Lack of participation from members	21	19.27	1	5.56	1	20
	c) Lack of guidelines for purchasing	23	21.10	2	11.11	1	20
	d) Lack of budget	47	43.12	8	44.44	2	40
	e) Others, specified	-	-	-	-	-	-
	Total	109	100	18	100	5	100

According to Table 3, Item 1, 38(34.86 %) of the trainees responded that the efficiency of the principal in coordinating the staff in planning the staff in planning the material resources is high; 47(43.12%) said moderate; 13(11.93 %) of the trainees said that it was low; where as 11(10.09 %) responded that they do not know.

Concerning the trainers 1(5.56 %) said that the efficiency of the principal in coordinating the staff in planning the material resources is high; 7(38.89 %) of the trainers said it was moderate; 6(33.33 %) indicated that it was low, 4(22.22 %) of the trainers said that they do not know.

Regarding the principals 1(20.00 %) said that the efficiency of the principals in coordinating the staff in planning the material resources is high; 2(40.00 %) said that it was moderate; 1(20.00 %) said that it was low; and the rest 1(20.00 %) said that 3 do not know.

As it can be seen from the data, it implies that most trainees, trainers and principals have said the efficiency of the principals in coordinating the staff in planning the material resources is moderate. To sustainable increase the quality and gradually the quantity of Non-formal TVET highly skilled, qualified, motivated, flexible and creative principal is needed. Efficiency to the best use of scarce resources can be managed through an effective coordination of the principal at the training institutes.

In item 2; the respondents were asked to answer as to the actual participation of the training institute members in material resource management. Accordingly 45(41.28 %) of the trainees said that it is high, 53(48.62 %) said that it was low and the rest 5(4.58 %) of the respondents answered that they do not know.

Regarding the trainers 3(16.66 %) of them said that the actual participation of training staff members in material resource management was high; 12(66.67 %) answered that it was an average; 3(16.67 %) responded that the actual participation of the training staff members in material resource management was low. The response of principals to the same question in table3, item 2, 1(20 %) said it was high and the rest 4(80.00 %) said it was average.

According to the response; the trainees, trainers and the principals have confirmed that the actual participation of training staff members in material resource management was at an average. One to difference in perception to the Non-Formal TVET program the participation of all members can be different. But all the partners will be required to increase their efforts, knowledge and expertise in many areas of studies. Effective mechanism must therefore be established to share experiences and expertise through ongoing activities, may include jointly share resource data, multi-media technologies and enter departmental cooperation.

It item 3, the respondents were required to answer to what extent does the training center prioritize the material resources purchasing based on the objective of the training system. To this item, 19(17.43 %) of the trainees said was high, 34(31.19 %) of the trainees stated that it was average, on the other hand 41(37.61 %) answered that it was low, the rest 6(5.50 %) said that they do not know.

Regarding the trainers, 4(22.22 %) answered that it was high, 1(5.56 %) said that it was average, 11(61. %) it was low and the rest 2(11.11 %) said that they do not know. On the part of the principals 1(20.00 %) stated that it was high, 3(60.00 %) said that it was average, the rest 1(20.00 %) answered that he does not know.

This implies that the supply of material resource in the training institutes is low. Material resource supplies and equipment in the process of purchasing is the life blood of the training program. As the large sum of the training institute's money goes to purchase training materials, concerned people should take highly responsibility and should analyze the existing procurement policy and the overall training objectives. This is because the purchasing function occupies a pivotal position in the training program. It is the most important function of the training management where planning, coordination, selection and communication highly evolved. Therefore, at every point in time in the life of the training institutes, porosity of purchasing material resources and performing the right activities is highly important in order to achieve the objectives of the training program an to fulfill its purpose.

Respondents were asked to answer if they have observed problems in planning of material resources. Trainees 22(20.18 %) said that there is lack of skill in planning, 26(23.85 %) stated that there is lack of participation from the staff members; 24(22.01 %) said that there is lack of guidelines for purchasing and the rest 44(44.95 %) answered that the problem is lack of sufficient budget.

On the other hand 7(38.89 %) of the trainers answered that there is lack of skill in planning; 1(5.56 %) stated that the problems is lack of participation from the staff members in planning of material resources, 2(11.11 %) said that there is a lack of guidelines for purchasing; the rest 8(44.44 %) answered that there is lack of sufficient budget.

Regarding the principals of the training V 1(20.00 %) said that the problem lies on lack of participation from the staff members on planning the material resources, again 1(20.00 %) said the problems is on lack of guidelines for purchasing, the rest 2(40.00 %) stated that the problems observed in planning of material resources is lack of budget.

From these figures, one can infer that the sample vocational training institutes have insufficient budget to run the program effectively which is very essential to technical-vocational training. In the process of vocational training, work shops, materials, tools land equipment can be organized sufficient budget is allocated. This helps that the trainee has an opportunities to develop skills and knowledge, and it also helps to integrate the theoretical aspect with the practical aspect.

Table 4
State of Material Resource Availability and Utilization in Non-Formal

No	Item	RESPONDENTS					
		Trainers		Principals		Purchasers	
		NO	%	NO	%	NO	%
1	Is the training center well equipped with the necessary training material resources?						
	a) Yes	49	44.95	8	44.44	1	20
	b) No	58	53.21	10	55.56	4	80
	c) I do not know	2	1.84	-	-	-	-
	Total	109	100	18	100	5	100
2	To what extent is the available material resource effectively used?						
	a) highly	40	36.69	2	11.11	2	40
	b) average	57	52.30	14	77.78	3	60
	c) low	12	11.01	2	11.11	-	-
	Total	109	100	18	100	5	100
3	How do you rate the efficiency of trainers and staff regarding the proper handling of material resource and equipment?						
	a) very good	24	22.02	1	5.56	1	20
	b) good	27	24.77	7	38.88	1	20
	c) fair	52	47.71	10	55.56	3	60
	d) Poor	6	5.50	-	-	-	-
Total	109	100	18	100	5	100	
4	Engagement of the training center in income generating activities						
	a) high	12	11	-	-	1	20
	b) average	38	34.86	8	44.44	2	40
	c) low	59	54.14	12	66.66	2	40
	Total	109	100	18	100	5	100
5	Is there any idle or unused material equipment and machinery in the institute?						
	a) Yes	52	47.71	11	61.11	4	80
	b) No	23	21.10	4	22.22	1	20
	c) I do not know	34	31.19	3	16.67	-	-
	Total	109	100	18	100	5	100

Table 4 tries to treat the state of material resource availability and utilization in the NF TVET. Having this in mind, of the trainees of the sample vocational training institutes 49(44.95 %) of them said yes, that the training institutes are well-equipped with the necessary

training material resources, 58(53.21 %) of the trainees said no, the rest 2(1.84 %) have said that I do not know.

Regarding the trainers of 8(44.44 %) of them said yes, 10(55.56 %) said no, concerning the principle 1(20.00 %) of them confirmed that the training institutes are well equipped with the necessary training material resources, 4(80.00 %) of the principals said no.

From these figures, one can understand that the sample Non-Formal TVET institutes are not well equipped with the necessary training material resources. In the process or training technical vocational education, it is essential that the workshops be equipped with the necessary materials and equipment. This helps to integrate the theoretical aspect with the practical aspect. In order to carry out vocational training effecting and efficiently, the workshop must be carefully designed, well-organized with the necessary raw materials and equipment which help to develop positive attitudes on the trainees in general and on the trainers in particular.

Table 4, item 2 tries to answer to what extent the available material resource is used effectively. As it is indicated in the table, 40(36.69 %) of the trainees replied that the available material resource is highly used, 57(52.30 %) of these trainees stated that it is at an average. The rest 12(11.01 %) of the trainees confirmed that it is low.

Regarding the trainers, 2(11.11 %) said that the available material resource is used highly, 14(77.78 %) said that the available material resources is used at an average. The rest 12(11.11 %) of the trainers said that it is low. Concerning the principals of the sample training

institutes, 2(40.00 %) said highly used, 3(60.00 %) of the principals stated that the available material resource is at an average. But none of them replied that it is low.

As it is shown on the Table 4, item 2, all respondents have implied that the training material resources is used at an average, this shows that the training institutes needs to increase the capacity utilization, improve financial management and better management of equipment, tools and training materials. To his end, management capacity building in necessary to trainers and principle based on thorough problem and needs analysis. Accordingly, cooperative training schemes should be promoted to encourage the institutions to develop flexible and innovative solutions for cost-effective training delivery.

Item 3 of Table 4 attempts to answer the question on how they do rate the efficiency of trainers and staff regarding the proper handling of material resources and equipment, which is the most important aspect of Non-Formal technical vocational training.

According to Table 4, item 3; 24(22.02 %) of the trainees indicated that it is very good, 27(24.77 %) of the trainees indicated that it is very good, 27(24.77 %) of the trainees stated it is fair, the rest 6(5.50%) indicated it is poor.

Regarding the trainers of these sample training institutes, significant respondents, 1(5.56 %) said it is very good, 7(38.88 %) of them indicated it is good; 10(55.58 %) of them stated that the efficiency of trainers and staff regarding the proper handling of material resources and equipment is fair. Concerning the principals from these sample vocational training institutes, 1(20.00 %) has said it is very good, again 1(20.00 %) answered it is good the rest 3(60.00 %) have indicated that

the efficiency of trainers and staff regarding the proper handling of material resources and equipment is fair.

According to the above information, the efficiency of the trainers and staff members regarding the proper handling of material resources and equipment is fair. By implication, a major task of a trainer and staff member in a vocational training is the proper handling of material resources and equipment which are very expensive and help the trainee to acquire skill knowledge, as well as that bring a change in attitudes in the learner on how to handle a training resources and equipment. The better the trainers and staff members handling the material resources and equipment of the training institute, the better the quality of training.

In item 4 of Table 4, respondents were required to answer if the training institutes have engaged in income generating activities. According to the respondents' point of view, 12(11.00 %) of the trainees claimed that it is high: while 38(34.88 %) of the trainees said it is at an average. The rest 59(54.14 %) indicated that the engagement of the training institute in income generating activities is low. Regarding the trainers, 8(44.44 %) said that it is at an average. While 12(66.66 %) of them indicated that it is low. Concerning the principals of the sample training institutes, 1(20.00 %) of the principals said it high; 2(40.00 %) of them said it is at an average, the rest 12(40.00 %) indicated that the engagement of the training institute in income generating activities is low.

As is shown from the figure, a great majority of the respondents stated that the training institutes are not participating in income generating activities.

Hence, the Non-Formal technical vocational training institutions are expected to cover a larger share of the running costs of the training provision themselves; income generation activities are a prime means to achieve this.

Table 4, item 5 attempts to answer the question - if there is any idle or demand material resource, equipment and machinery in the training institutions. As it is indicated on the table, 52(47.71 %) of the trainees said yes. Only 23(21.10 %) of the trainees said no, 34(31.19%) indicated that they do not know about this. According to the response of the sample trainers, 11(61.11 %) of them stated that there is an idle and unused material resource, equipment and machinery in the institutes. While 4(22.22 %) of the indicated that there is no an idle material resources, equipment and machinery, the rest 3(16.67 %) of the trainers infirmed that they do not know. Regarding the principals, 4(80.00 %) of them said that there are idle materials, equipment and machinery is the training institutes, while 1(20.00 %) of the principals said there is no

From the figures one can infer that the training institutes are not using the available material resources, equipment and machineries. Training facilities are proved by allocating a significant investment from the country's limited resources. Therefore institutions with good facilities create attractive training environment and this, in turn, makes the information flow efficient. Therefore every staff should discharge its responsibility to maximize the proper utilization of resources.

Table 5
Purchasing System of Material Resources in the NF-TVET
Institutes

NO	Item	RESPONDENTS			
		Trainers		Principals	
		No	%	NO	%
1	Materials and equipment are purchased on time				
	a) Yes	9	50.00	3	60
	b) No	7	38.89	2	40
	c) I do not know	2	11.11	-	-
	Total	18	100	5	100
2	Who should participate in purchasing the material resources for the training?				
	a) Teachers	3	16.67	1	20
	b) Department Heads	2	11.11	1	20
	c) Committee with purchaser	13	72.22	3	60
	d) Principals	-	-	-	-
	Total	18	100	5	100
3	Who should prepare specification of material resources for purchaser?				
	a) The departments	12	66.66	3	60
	b) The trainers	5	27.98	2	40
	c) The purchaser	1	5.56	-	-
	d) The principals	-	-	-	-
	Total	18	100	5	100
4	Is the materials/equipment purchased appropriate to the objective of the training program?				
	a) Yes	11	61.11	4	80
	b) No	3	16.87	1	20
	c) I do not know	4	22.22	-	-
	Total	18	100	5	100
5	What chance have you got to update your skill and experience in material resource utilization?				
	a) Seminar	-	-	-	-
	b) Short term training	-	-	-	-
	c) Workshop	3	16.67	1	20
	d) not at all	15	83.33	4	80
	Total	18	100	5	100

In Table 5, item 1 respondents were asked to answer whether the material resource and equipment are purchased on time, it indicates that 2(11.11 %) of the trainers said yes; 14(27.78 %) said no, and the

rest 2(11.11 %) said I do not know. Concerning the principals of the vocational training institutes, 1(20 %) answered yes, the rest 4 (80.00 %) said no.

This shows that material resources and equipment are not purchased on time for those sample vocational training institutes. Materials resources for training should be purchased at the right time so that they will be delivered when they are needed, if not it may affect the training program. It is desirable to realize that the purchaser have the knowledge of the quality, the right quantity, the right price of the training materials.

In item 2, the respondents were required to answer who should participate in purchasing the material resources for the training. 3(16.87 %) of the trainers said that teachers/trainers should participate in material resource purchasing, 2(11.11 %) stated that department heads should participate, where as the rest 13(72.22 %) of the trainers said that a committee with a purchaser should participate in purchasing the material resource for the training. Regarding the principals, 1(20.00 %) said that teachers/trainers should participate, again 1(20.00 %) said that department heads should be participated in material purchasing the rest 3(60.00 %) answered that a committee with a purchaser should participate in purchasing the material resource for the training.

From the figures, one can infer that the purchasing activities for the training program are conducted by a purchasing committee. The participation of all concerned, the department heads, the purchasers and the supervisors can be organized to that high concern and responsibility can be develop, at the same time experience and expertise knowledge of purchasing can be realized.

In item 3, the respondents were asked to answer who should prepare specification of material resources for purchase. As it is indicated in the table 12(66.66 %) of the trainers stated that the departments should prepare the specification of material resources for purchase; 5(27.79 %) said that the trainers should prepare the specification of material resources for purchase; the rest 1(5.56 %) said the purchaser should prepare the specification for the training. Concerning the principals 3(60.00 %) answered that the department heads should prepare the specification of the material resources for the training program. Where as 2(40.00 %) of the principals of the vocational training institutes confirmed that the trainers should prepare the specification of material resources for purchase.

As it is shown on the Table 5, item 3, the preparation of specification of material resources should be prepared by the department heads. It is believed that vocational training requires skills and knowledge on what type of material to what type of field of study and at the same time to what quantities and qualities of material resources. Therefore this process has its non specific skill and knowledge which helps to facilitate and bring about quality training.

Item 4 of Table 4 attempts to answer the question if the material resource/equipment purchased are appropriate to the objective of the training program. As it is indicated, 3(16.67 %) of the trainers said yes, 11(61.11 %) of the trainers said no, where as 4(22.22 %) have answered that they do not know. Concerning the principals of the sample training centers, 1(20.00 %) said yes, the rest 4(80.00 %) said no.

This shows that the material resources purchased in the training institutions are not appropriately purchased. Since the fields of studies have their own characteristics, they need care and attention when purchase, for what purpose, what type of materials, equipment and tools according to the specification designed by the trainers or department heads. In many instances the necessary material resources in vocational training are measured in terms of workmanship, grades, sign and designs. Taking all this into consideration material resources should full fill the necessary requirements to achieve the goal.

In Table 5, item 5 was designed to know whether the respondents had a chance they have got to update their skills and experiences in material resource utilization. On this point, 3(16.67 %) of the trainers stated that they have got workshops to update their skills and experiences in material resource utilization, 15(83.88 %) of the trainers claimed that they have not got a chance to update their skills and experiences in material resource utilization at all. Regarding the principals 1(20.00 %) of them stated that they had a chance to update their skills and experience in material resource utilization through workshops, the rest 4(80.00 %) of the principals said that they have not got a chance to update their skills and experiences in material resources utilization at all.

From the figures, one can infer that trainers and principals of these sample training institutes are not provided with the necessary training in material resource utilization. Effective training can minimize material wastage. The fundamental aim of capacity building of trainers is to help the program achieve its purpose by adding value to its key resource - the people it employs. Training is investing in people to enable them to perform better and to empower them to make the best

use of their natural abilities. Unless, trainers and principals acquire the necessary skills for proper utilization of material resources, scarce resources are going to be tragically inadequate and often measured by the system. Therefore, to avoid this problem the available resources can be managed, identified, organized and used to get the maximum training out come.

Table 6
Activities on Maintenance and Disposal of Material and Equipment in Non-Formal TVET Institutes.

No	Item	RESPONDENTS					
		Trainees		Trainers		Principals	
		NO	%	NO	%	NO	%
1	Skills of trainers to maintain facilities and tools in the training center						
	a) Very good	18	16.52	2	11.11	-	-
	b) Satisfactory	32	29.56	13	72.22	3	60
	c) Low	53	48.62	3	16.67	2	40
	d) I do not know	6	5.50	-	-	-	-
	Total	109	100	18	100	5	100
2	How do you rate the capacity of the training institute regarding the maintenance of materials and equipment?						
	a) Among the best	25	22.94	3	16.57	-	-
	b) Among the average	54	49.54	9	50.00	3	60
	c) Among the poor	5	4.58	6	33.33	--2	40
	d) I do not know	25	22.94	-	-	-	-
	Total	109	100	18	100	5	100
3	Does your training institute have disposal and supplies material resource?						
	a) yes	16	14.68	7	38.89	2	40
	b) No	87	79.81	9	50.00	3	60
	c) I do not know	6	5.51	2	11.11	-	-
	Total	109	100	18	100	5	100

According to Table 6 item 1, the respondents were asked to answer to what extent the trainers are skilled to maintain facilities tools, and machineries in the training institute To this regard, 18(16.52 %) of the trainees stated that the skill of the trainers to maintain facilities, tools and machineries at the training institute is very good, 32(29.36%) of the trainees said that it is satisfactory, a majority of trainees from the sample, 53(48.62 %) answered that the trainers skill to maintain facilities, tools and machineries in the training institute is low, the rest 6(5.50 %) responded that they do not know..

Regarding the trainers, 2(11.11 %) of them said that is very good, 13(72.72 %) said that it is satisfactory. While the rest 3(16.67 %) answered that they do not know. Concerning the response of the principals, 3(60.00 %), of them said it is satisfactory, while the rest 2(40.00 %) of the principals that the skill of the trainers to maintain facilities, tools and machineries is low.

This shows that a majority of the respondents have disclosed the trainers skill to maintenance of facilities, tools and machineries is low.

Non-Formal TVET institution facility infrastructure is critical to excellence in training opportunities. Machineries, tools and equipment in training opportunities. Machineries, tools and equipment in training are the physical learning environments which maintenance is responsible for. It is necessary that the trainer understand the causes, repair facilities at optimal cost and handle them in a systematic and scientific up keep of equipment for prolonging its life.

In item 2, respondents were asked to rate the capacity of the training institutions to maintenance of facilities and equipment. In this regard, 25(22.94 %) said that the training institutes capacity in maintaining facilities, equipment and machineries is among the best, 54(49.54 %) stated that the training institutes are among the average, while 5(4.58 %) of the trainees replied that they are among the poor, the rest 25(22.94 %) stated that they do not know. On the part of the trainers, 3(16.67 %) stated that they are among the best. 9(50.00 %) replied that they are among the poor. Regarding to the principals, 3(60 %) of them stated that the capacity of the training institutions regarding the maintenance of facilities, equipment and machineries is among the average, the rest 2(40.00 %) of them stated that it is among the poor.

This shows that majority of the respondents dissolved that the training institutes are among the average. The most important objective of the program as perceived by the respondents was to enable them to acquire vocational skills that would make them gainful self-employed as a means of ensuring or promoting self-reliance and making them more productive and useful citizens if proper handling of technical-vocational equipment and machineries. Accordingly, efficiency of material resource handling, maintenance may lead to efficiency of training program. Trainee can develop the habit of handling land can acquire a skill of maintenance in the training institute.

In item 3 of Table 6, respondents were required to answer if their training institutes have disposal and surplus materials resources. As it is indicated on the table, 16(14.68 %) of the trainee said yes, they have disposal and surplus material resource in the training institutes, 87(79.81 %) said no, the rest 6(5.51 %) of the trainee indicated that they do not know. Concerning the trainers, 7(38.89 %) said yes, there is a disposal and surplus material resource in the training institute, 9(50.00 %) said no, the rest 2(11.11 %) said I do not know. Regarding the principals, 2(40.00 %) indicated yes, the rest 3(60.00 %) said no.

From these figures one can infer that the training institutes have no disposal and surplus material resources in the training institute. Thus the kind of material and facilities for training institutes, in amount depends upon the extent to which it fulfils the intended purpose. For this purpose, the variety, sufficient and quality of materials and equipment, the better to accelerate the achievement of the desired objective. Success with which any training system can discharge its responsibility depends on how well it has organized with the necessary and sufficient material resource.

TABLE 7
Storage, Distribution and Inventory of Material Resources
In NF-TVET Institutes.

No	Item	RESPONDENTS			
		Trainers		Principals	
		NO	%	No	%
1	Is there inventory management of material resources in your training center?				
	a) Yes	17	94.44	5	100
	b) No	1	5.56	-	-
	c) I do not know	-	-	-	-
	Total	18	100	5	100
2	How often is inventory taken in your training center?				
	a) Once in two years	-	-	-	-
	b) Once in a year	18	100	5	100
	c) Once in a semester	-	-	-	-
	d) When it is needed	-	-	-	-
	e) I do not know	-	-	-	-
	Total	18	100	5	100
3	Does the training center have store room for material resources?				
	a) Yes	17	94.44	5	100
	b) No	1	5.56	-	-
	c) I do not know	-	-	-	-
	Total	18	100	5	100

Respondents were asked to answer whether inventory management of material resources is there in the training institutes.

Table 7, item 1 indicates that 17(94.44 %) of the trainers said yes, that there is inventory management of material resources in the training institute, while the rest 1(5.56 %) said no. Respondents from the sample principle, all of them, 5(100.00 %) confirmed yes, there is an inventory management of material resources in the training institute.

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		Trainers		Principals	
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1	Is there inventory management of material resources in your training center?				
	a) Yes	17	94.44	5	100
	b) No	1	5.56	-	-
	c) I do not know	-	-	-	-
	Total	18	100	5	100
2	How often is inventory taken in your training center?				
	a) Once in two years	-	-	-	-
	b) Once in a year	18	100	5	100
	c) Once in a semester	-	-	-	-
	d) When it is needed	-	-	-	-
	e) I do not know	-	-	-	-
	Total	18	100	5	100
3	Does the training center have store room for material resources?				
	a) Yes	17	94.44	5	100
	b) No	1	5.56	-	-
	c) I do not know	-	-	-	-
	Total	18	100	5	100

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Table 7, item 1 indicates that 17(94.44 %) of the trainers said yes, that there is inventory management of material resources in the training institute, while the rest 1(5.56 %) said no. Respondents from the sample principle, all of them, 5(100.00 %) confirmed yes, there is an inventory management of material resources in the training institute.

This shows that the sample training institutes have an inventory management of material resources. Inventory which is one of the most important elements of material resources management in any organization dealing with supply manufacture and distribution of materials resources, equipment, tools. For this reason alone, the carrying of inventory in vocational training institutes is necessary that supply and demand of the training materials can be satisfied.

In item 2, respondents were asked to answer how often inventory was taken in the training institutes. According to table 7, item 2, all of trainers 18(100 %) confirmed that inventory is conducted once in a year in the training centers, again on the part of the principals, 5(100.00 %) indicated that inventory is taking places once in a year.

This show that inventory for the NF_TVET is very important which helps to protect properties, material resources, equipment and tools from wastage and fraud. To have an effective and efficient control system in the training institute, an inventory management enables the training program run properly, to control the flow of material resources so that they can be used for the purpose they are purchased for.

Item 3, of Table 5 attempts to identify the question whether the training centers have store room for material resources. Accordingly, 17(94.44 %) of the trainers said yes, there is a store room for material resources, the rest 1(5.56 %) of the trainees said no. Concerning the principals of the training centers all 5(100.00 %) of them said yes. This shows that all the sample training institutes have store room for the material resources which very important to keep all resources safely, makes ready accessibility of major materials for training, and

minimum of material resource pilferage, easy physical counting and efficient utilization of space and on the other hand there is least possibility of theft, damage and they may be easily located and issued whenever required for use.

Further more, the investigator interviewed a total of 12 respondents, 5 purchasers from the sample training institutes, 7 supervisors from the Addis Ababa Education Bureau, Non-Formal TVET Department and from the Sub-Cities.

All of the interviewees has given their opinions on the problems and possible solutions of material resources utilization in the NF-TVET centers in Addis Ababa.

However, the interviewees disclosed that the major problems on materials resource utilization at the training institute level is mainly due to:

- The problem of purchasing on time.
- Stores are not well organized to handle material resource properly.
- Lack of trained/professional purchasers
- Absence of income generating activities in most of the training institutes.
- Lack of skill on maintenance of tools, equipment.
- Lack of skill on planning material utilization for its intended purpose.

Finally, in the open-ended questions, regarding the problems and constraints that can affect the proper utilization of material resource for Non-Formal TVET in Addis Ababa, the majority of both group respondents indicated the following.

- Most of the training institute purchasers are not qualified for the Non-Formal TVET program; lack of technical knowledge.
- Trainees are not aware of taking care for the materials, tools and equipment in the training process; more damage occurs.
- Traditional way of purchasing system is one of the problems in the training program.
- Training are not aware of on how to organize workshops, design and prepare they project works according to the objective of the skill.
- There is no continuous participation of trainers on checking what is left in the store.
- Shortage of sufficient budget to facilitate the NF-TVET on the part of the finance department at the sub city level.
- There is no relationship between the training institute and other technical organizations for support in material resources, tools and equipment.

To the above stated problems and constraints that can affect the proper utilization of material resource for the Non-Formal VET in Addis Ababa, the respondents suggested the following solutions.

- Training should be organized to the purchasers, store keepers on how to organize purchase and give poverty to the training program from the part of the sub-city and Addis Ababa Education Bureau.
- Continuous trainings and workshops have to be organized for the trainers, principals and supervisors on how to organize a technical vocational workshops by the Addis Ababa Education Bureau.
- Trainees should develop positive attitudes on how to handle materials resource, equipment and tools in the process of the

training, a great deal of effort should be done on the part of the trainers.

- The training institutes should have a cooperative way of training with other technical organizations, government projects. So that the training program can minimize cost of material resources.
- The training program should be supported with the necessary budget to run the program properly. The sub-city Education department should facilitate and solve the problem with the Sub-city finance department.
- There should be well-organized and a continuous evaluation of the program. So that it will help to identify the problems on utilization of material resources and to what extent the program has attained its objectives.
- There should be clear guideline for maintenance of training equipment and tools.
- The training system should be geared to income generating activities.

These suggestions forwarded by the respondents could help solve the problems that affect the material resource utilizations to the NF-TVET in Addis Ababa. Some of the suggestions, if not all, can be exercised by the training institutes in cooperation with all concerned bodies so as to achieve the intended objective of the training.

CHAPTER FOUR

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary of the Findings

The purpose of this study was to investigate problems and suggest possible solutions of utilization of material resources in Non-Formal TVET institutions in Addis Ababa. To this end, the following basic questions were formulated.

1. What are the constraints for the improper utilization of material resources in the Non-Formal TVET program in Addis Ababa?
2. How do the trainees and trainers rate the state of material resources available for the implementation in the program?
3. Are there any income generating activities that can strengthen the program with the necessary material resources?
4. Are there any mechanisms and procedures for prioritizing and justifying purchasing the material resources for the program?
5. What possible solutions should be taken to create an efficient way of utilizing material resources in the Non-Formal TVET centers in Addis Ababa?

In order to find reasonable answers for the research questions above, appropriate data collection procedures were employed. The study employed a descriptive survey method and it was conducted in 5 government Non-Formal TVET institutes. These sample training institutes were selected from Addis Ababa on the basis of purposive sampling techniques.

The subjects of the study were 109 trainees, 18 trainers, 7 supervisors, 5 principals and 5 purchasers.

Accordingly, the respondents sampling was carried out through purposive and availability sampling techniques. The Non-Formal TVET supervisors and purchasers were selected through availability sampling. While the trainees, trainers and principals were selected using purposive sampling techniques.

Information was obtained from these sample respondents through questionnaire, interview and observation. The data obtained were analyzed using percentage. Accordingly, the following findings were observed.

1. Trainees, trainers, principals and supervisors of the Non-Formal TVET program is predominated by males.
2. Regarding the qualification of the respondents most of the trainers, principals and supervisors fulfill the requirements set by the MOE which says that diploma and degree holders for trainers, principals and supervisors respectively.
3. Purchasers are found to be unqualified for the position they are entitled.
4. All trainees are in the age of the recommended level to create and accept new changes.
5. Concerning the service years of the respondents, most of the trainers and principals have less service than the supervisors and purchasers.
6. The efficiency of the principals in coordinating the staff in planning material resource is at an average.

7. With regard to the actual participation of training staff in material resource management, it is found that it is at an average level.
8. In the vocational training institutes under study, priority is not given to purchasing of material resources and purchasing of material resources is not done at the right time which has adversely affected the training program.
9. Most training centers under study have a shortage of budget.
10. Regarding the total organization of the training institutions, shops are not well equipped and, material resources are not sufficient to run the program effecting.
11. Material resource, equipment and tools were not given proper attention. They were not properly handled controlled by the trainers and staff members.
12. In the sample vocational training institutes, income generating activities are not given proper attention.
13. In the respective vocational training institutes of the study, there are idle or under used equipment, material resource and machineries with a problem of qualified trainer and in adequate material resource. Therefore, the available material resources in these training institutes are not effectively utilized.
14. The purchasing made by the purchasers was inappropriate for the objective of the training program and has led to hording of unnecessary material resource, equipment and tools due to lack of technical knowledge.
15. Most of the trainers, principals under the study are not provided with the necessary training on material resource management.

16. According to the trainees response, it is found that most trainers have no skills in maintaining equipment, tools and machineries, but from the observation conducted, it is found that they lack not only skill of maintenance, but also they lack the commitment.
17. The trend and practice of inventory management were in a better condition.
18. Most of the vocational training institutes have store-rooms but are not managed by a qualified personnel.

To sum up, according to the response of open-ended questions forwarded and interview conducted with purchasers and supervisors, the major problems that hinder the proper utilization of material resources were found to be:

- Lack of skill on handling material resource.
- Absence of professional and qualified purchasers.
- Lack of skill on maintenance of equipment and tools.
- Absence of income generating activities.
- Absence of guidelines, regulations for the establishment of production units in the training centers.

On the other hand, observations made by the student researcher have found that:

- These training institutes seem to be isolated from the community, companies and from the private sectors.
- In sufficient budget.
- High drop-outs.
- Low capacity of trainers on recycling, creativity.
- Lack of pedagogical and psychological knowledge which is very important in the process of handling trainees.
- Absence of follow up and support from the part of the Education Bureau, and sub-city Education Department

4.2 CONCLUSIONS

Vocational education is an expensive program compared to other academic courses and it has a close link with material resources. To this effect, vocational training institutions are evaluated by their resource management. In order to cope up with such situation, vocational training managers must plan for the best use of the available resources. As the results of this study revealed, the major factors that affect the proper material resources utilization were that giving less priority on the process of purchasing material resources for the training program which entails a program to be paralyzed. Most importantly, the allocation of insufficient budget another problem. Training institutes should be well equipped, organized with the necessary material resources and facilities, trainers are not provided with the necessary skills on maintenance of equipment. In the process of skill training, income generating is very essential that it should be encouraged. On the other hand absence of professional and qualified purchasers is another critical problem. A high level of accountability is not practiced for the misuse improper handling and poor resource management.

According to the findings of the study, in terms of problems of material resource utilizations in the Non-Formal TVET of Addis Ababa, the practice of purchasing, skill on maintenance, improper handling of material resources, income generating activities and the lack of skills in resource management should be evaluated vigorously to enable the vocational training institutes run their program more effectively and efficiently.

4.3 RECOMMENDATIONS.

Based on the summary, references and comments on the underlying causes and problems on utilization of materials resources in Non-Formal TVET institutions in Addis Ababa. The following possible recommendations are forwarded.

1. Resource materials are essential inputs for running training activities. The effectiveness and efficiency of the training program to a great extent depends on the amount and quality of training materials available, to attain the objectives of the training, sufficient budget should be allocated by the Sub-city Education Departments.
2. Particular attention should be given by the Sub-city finance departments and training institutes to the appropriate timing of purchasing materials resources TO get into hands of their training institutes. Appropriate timing of supply of materials resources to the training institutes so as to facilitate the training program need to be planned.
3. To enhance the achievement of the objectives of Non-Formal TVET, priority should be given by the Sub-city Education Department to the requirement and preparation of qualified, potentially competent purchasers to the provision of the necessary training to enable them to function effectively in their profession.
4. Because vocational training is an expensive exercise, a lot of effort has to be put into the planning and organizing with the necessary equipment, machineries and material resources. Each of these processes requires cooperative efforts from the government, companies, communities, NGO's, and the private firms.

5. Materials resource, tools, equipment and machineries for future use must be kept properly and safely. Trainees and trainers must have an orientation and should be given as part and several of the training courses on how to handle material resource, equipment and tools which can help to strengthen the training program. The better trainers and staff members hand the material resource and equipment of the training center, the better the quality of the training.
6. One of the instruments to increase resources for the Non-Formal TVET institutes is to systematically strengthen the capacities of the training institutions in terms of the use of generated funds. In order to implement income generating activities efficiently and effectively, reliable accounting mechanisms must in place at the institution level. Rues, regulations and policy guidelines should be established of MOE which helps to make the financial management be transparent and accountable.
7. The material resources, tools, machineries and equipment in the training process are in scarce; on the other hand there are unused and idle machines, material resources in the training centers. The Education Bureau and the Sub-city education departments should prepare short term training, workshops and seminars based on sharing of experiences with companies to build the capacity of the trainers, principals and supervisors in relation to proper utilization material of resources in the training centers.
8. One of the important considerations of in purchasing the training materials is that to ensure that the supplier has the ability to provide training material resources of the specified quality in a cost effective manner to accomplish the objective of the training. In fulfilling this responsibility, the purchasing

personnel with the trainers have to create complete and appropriate specifications for quality requirements of the material resources to be purchased.

9. Given the essential need for innovation in NFTVET, the role of the trainer, principals and supervisors remains paramount. Now methods must be found for the initial training of trainers, principals and supervisors accompanied by the continuous upgrading of their competence and professional development. Therefore, trainers, principals and supervisors of the NFTVET centers should be assisted to a new and appropriate technical and managerial know how on material resource management by the concerned bodies.
10. The timely and regular maintenance of training equipment, tools and machines is paramount in the training system. All this can be prevented by identifying and addressing the problem. Establishing the cause of damage and setting the right priorities needs knowledge and skills. Therefore trainers should get the necessary maintenance training facilitated by the training institutes, the Sub-cities education departments, Education Bureau and companies.
11. Although, the government carries the primary responsibility for organizing the public NFTVET institutes, in a modern market economy NFTVET policy design and delivery must be achieved through a new partnership between government, employers, industries, trade unions and the community. This partnership should be strengthened by the MOE and training institutes and create a coherent legislation framework to enable the training institutes maintain their activities properly. Practical activities can be enhanced material resources and innovative ideas can be obtained.

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APPENDICES

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF BUSSINESS EDUCATION**

This questionnaire is to be completed by government Non-Formal TVET Trainers, and Principals in Addis Ababa city government.

To the Respondents.

This questionnaire is prepared for the purpose of conducting a study of the problems and possible solutions of utilization of material resources in NF TVET institutions of Addis Ababa City Administration. To achieve the purpose, your cooperation in completing this questionnaire is highly appreciated. The success of this study by and large depends on your honest and sincere responses to the question items. The date collected from individual respondents will be kept confidential. You are, therefore, kindly requested to provide the required information.

Thank you in advance for your cooperation

General Direction

- a) You do not have to write your name
- b) Indicate your opinion by marking '✓' for questions with choices or write your opinion in brief whenever necessary in the space provided.

Part one - Background Information

1. Name of your Training Center _____
2. Sex: Male Female
3. Age: Below 20 21-30 31-40 41-50 51 and above
4. Educational Qualification:
12 complete Certificate (TVET) Diploma
B.A/B.sc Others (specify) _____
5. Year of Service _____
6. Field of specialization _____
7. Present position in the Training center _____

Part Two - Planning of Material Resources in Non-Formal TVET

1. Does your institution plan for the material resource?
a) Yes b) No c) I do not know
2. Who is responsible for material resource planning?
a) Teachers b) Principals c) Department heads
d) Administrative staff e) All
3. To what extent is the principal efficient in coordinating the staff in planning the material resources?
a) high b) moderate c) low d) I don't know
4. The actual participation of members of your school in material resource of the teachers, trainees and principals in management
a) high b) average c) low d) I do not know
5. To what extent does the training center prioritize the material resource purchasing based on the objective of the training system?
a) high b) average c) low d) I do not know

6. What chance have you got to update your skill and experience in material resource utilization? (for trainers and principals)
 - a) seminar
 - b) short term training
 - c) workshop
 - d) Not at all
 - e. others, pleas specify_____
7. What problems do you observe in planning of material resources? (you can indicate more than one)
 - a) Lack of skill in planning
 - b) Lack of participation from members of the training center
 - c) Lack of guidelines for purchasing.
 - d) Lack of budget
 - e) Others, please specify_____

Part three - State of Material Resources Availability and Utilization in NF TVET.

8. Is the training center well equipped with the necessary training material resources?
 - a) yes
 - b) no
 - c) I do not know
9. To what extent do you thing the available material resource in the training effecting used?
 - a) highly
 - b) average
 - c) low
10. How do you rate the efficiency of teachers and administrative staff in the institution regarding the proper utilization and handling of materials and equipment?
 - a) Very good
 - b) good
 - c) fair
 - d) poor
11. To what extent does your training center engage in income generating activities?
 - a) high
 - b) average
 - c) low
12. In your training center, is there any idle or unused material resources and equipment?
 - a) yes
 - b) no
 - c) I do not know
13. If your response to question number 12 is 'yes', what do you think is the reason? Please specify _____
14. Does your training center provide you with adequate type of materials resource needed to teach your lesson properly?
 - a) yes
 - b) no
 - c) I do not know
15. How do you rate your training center status in material resources management among other NF TVET institutions in Addis Ababa?
 - a) very good
 - b) good
 - c) fair
 - d) poor

Part Four - Purchasing of Material Resources for the NF TVET?

16. Are the materials and equipment purchased on time?
 - a) yes
 - b) no
 - c) I do not know
17. Who should participate in purchasing the material resources for the training program?
 - a) Teachers
 - b) Departments heads
 - c)Purchasers
 - d) Principals
 - e) Trainees
 - b) Others, pleas specify _____

Part Eight - Please give your opinion for the following questions.

29. What factors do you think affect the material resource management in your training center? _____

30. What are the major reasons for material damage in the NF TVET? _____

31. What do you suggest the best possible solution for the problems in utilization of material resources in your training center? _____

Thank your

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF BUSSINESS EDUCATION**

Interview guideline for: Addis Ababa NF TVET supervisors at the _____ sub-city level and purchasers at the NF TVET centers.

- Name of the sub-city _____
- Name of the NF TVET center _____
- Current position _____
- Educational level _____
- Age _____ Sex _____ Experience _____

1. Are material resources in the training centers effectively used? _____

2. In your opinion does the training center plan for the material and equipment requirement? _____

3. Do the workers and users concern with material resources feel a sense of responsibility? _____

4. How do you rate the state of material resource available for the implementation of the program? _____

5. To what extent is the purchasing system of the training center efficient to attain its objectives? _____

6. What are the major problems the training centers encounter on purchasing? _____

7. To what extent, storage management and inventory is implemented in the NF TVET institutions? _____

8. In your opinion, does the institute encourage trainees and trainers to income generating activities? _____

9. What additional problems have you observed in resource utilization at the training center? _____

10. What do you suggest and recommend solving the problems of effective utilization of training material resources management? _____

Thank you

በአዲስ አበባ ዩኒቨርሲቲ
የድህረ ምረቃ ፕሮግራም
የቢዝነስ ትምህርት ክፍል

በአዲስ አበባ ከተማ አስተዳደር ትምህርት መደበኛ ያልሆነው የቴክኒክና ሙያ የመንግሥት ተቋማት በሠልጣኝ ተማሪዎች የሚሞላ መጠይቅ።

የዚህ መጠይቅ ዓላማ መደበኛ ባልሆነው የቴክኒክና ሙያ ሥልጠና በሥልጠናው ሒደት የጥሬ ሃብት አጠቃቀም ላይ ያጋጠሙ ችግሮችንን የመፍትሄ ሃሳብ ለመጠቀም የተዘጋጀ መጠይቅ ነው። ለተዘጋጀለት ዓላማ ግብ መምታት የእርስዎ ግልፅና ቅን መልስ ይጠበቃል። ይህንን በማድረግም ለችግሩ መፍትሄ ሃሳብ አስተዋፅኦ አለው።

የሚሠጡት ምላሽ በሚስጥር የሚያዝ መሆኑን አውቀው ጥያቄውን በጥንቃቄና በትእግሥት እንዲሞሉ በትኩረትና እጠይቃለሁ።

በቅድሚያ ላደረጉት ትብብር አመሰግናለሁ

አጠቃላይ መመሪያ

ሀ. ስም መጻፍ አያስፈልግም

ለ. በተሠጥዎት ምርጫ ሣጥኖች ላይ የ"✓" ምልክት ያድርጉ፤ አጭር መግለጫ ለመስጠት ከፈለጉ በተሠጥዎት ክፍት ቦታ ላይ በአጭሩ ይግለጹ።

ክፍለ አንድ ፤ አጠቃላይ መግለጫ

1. የተቋሙ ስም _____
2. ያታ፤ ወንድ ሴት
3. እድሜ፤ ከ20 በታች ከ21-30 ከ31-40 ከ41-50 ከ51 በላይ
4. የትምህርት ደረጃ
12 የጨረሰ ሠርቲፊኬት/ቴክኒክና ሙያ/ ዲፕሎማ
 ሌላ ይግለጹ _____
5. የሚሠለጥኑበት የሙያ ዓይነት _____

ክፍል ሁለት፤ መደበኛ ባልሆነው ሥልጠና የጥሬ ሃብት እቅድ በተመለከተ

1. የተቋሙ ኃላፊ የጥሬ ሃብት ዕቅድ አስተባብሮ የመምራት ብቃት ምን ያህል ነው?
ሀ. ከፍተኛ ለ. መካከለኛ ሐ. ዝቅተኛ መ. አላውቅም
2. በአሁኑ ወቅት የተቋሙ መምህራን፤ ሠልጣኝ ኃላፊ በጥሬ ሃብት አጠቃቀም ያላቸው ተሳትፎ፤
ሀ. ከፍተኛ ለ. መካከለኛ ሐ. ዝቅተኛ መ. አላውቅም
3. የተቋሙ የጥሬ ሃብት ግዢ ቅድሚያ የመስጠት ብቃት በተመለከተ
ሀ. ከፍተኛ ለ. መካከለኛ ሐ. ዝቅተኛ መ. አላውቅም
4. በጥሬ ሃብት እቅድ አዘጋጃጀት ላይ ምን ችግሮችን ተገንዝበዋል።/ከአንድ በላይ ማመልከት ይቻላል/
ሀ. የዕቅድ ክህሎት ያለመኖሩን ለ. የሁሉም ተሳትፎ ዝቅተኛ መሆን
ሐ. የግዢ መመሪያ ያለመኖሩ መ. የበጀት እጥረት
ሠ. ሌላ ካለ ይግለጹ _____

ክፍል ሦስት፤ በአሁኑ ወቅት ተቋሙ በጥሬ ሃብትና አጠቃቀም ያለበት ደረጃ በተመለከተ

5. ተቋሙ በጥሬ ሃብት፤ በመሣሪያ አደረጃጀቱ የተሟላ ነው?
ሀ. አዎን ለ. አይደለም ሐ. አላውቅም
6. በእርስዎ አመለካከት ተቋሙ ያለውን ጥሬ ሃብት በብቃት የመጠቀም ሁኔታ ምን ይመስላል?
ሀ. ከፍተኛ ለ. መካከለኛ ሐ. ዝቅተኛ

7. መምራትና የተቋሙ አስተዳደር የጥሬ ሃብት አጠቃቀምና አያያዝ ያላቸው ጥራት ምን ያህል ነው?

- ሀ. በጣም ጥሩ ለ. ጥሩ ሐ. ደህና መ. ደካማ

8. ተቋሙ የገቢ ምንም በማዳበር ያለው ተሳትፎ

- ሀ. ከፍተኛ ለ. አሸራሮ ሐ. ዝቅተኛ

9. በተቋማችሁ ውስጥ አልግለት ላይ ያልዋለ የተቀመጠ ጥሬ ሃብት፤ መሣሪያ፤ አለን?

- ሀ. አዎን ለ. የለም ሐ. አላውቅም

10. ለተራ ቁጥር 9 መልስዎ አዎን ከሆነ ምክንያቱ ምን ይመስላል?/ይግለፁ/ _____

11 የዚህ ተቋም በጥሬ ሃብት አስተዳደር ከሌሎች ተቋማት አኳያ እንዴት ይመዝኑታል?

- ሀ. በጣም የበለጠ ለ. መካከለኛ ደረጃ ያለው ሐ. ዝቅተኛ ደረጃ

- መ. በጣም ደካማ ሠ. አላውቅም

ክፍል አራት፤ ጥሬ ሃብት በመጠንና በማስወገድ ላይ ያለው እንቅስቃሴ በተመለከተ

12 መምህራን መሣሪያዎችንና የሥልጠና እቃዎች የመጠን ክህሎታቸው ምን ያህል ነው?

- ሀ. በጣም ጥሩ ለ. በቂ ሐ. ዝቅተኛ መ. አላውቅም

13. መልስዎ ለተራ ቁጥር 12 ዝቅተኛ ነው ካሉ ምክንያቱ ምን ይመስለዎታል? /ከአንድ በላይ መመለስ ይቻላል/፤

- ሀ. ኃላፊነት ያመሰማት ለ. የጥገና ክህሎት ማነስ ሐ. ክፍያን መጠየቅ

- መ. የማስተባበር ትግር ሠ. ሌላ ካለ /ይግለፁ/ _____

14. የዚህ ተቋም የሥልጠና መሣሪያዎችን ከመቆጣጠር ከማደራጀት አኳያ ከሌሎች ተቋማት ሲወዳደር ያለው ደረጃ ምን ይመስላል?

- ሀ. እጅግ የበለጠ ለ. በመካከለኛ ደረጃ ሐ. ከደረጃ በታች

- መ. በጣም ደካማ ሠ. አላውቅም

15. ለትርፍ የሆነ ጥሬ እቃና ለሚወገዱ እቃዎች በተቋሙ ውስጥ ተደራጅቷል?

- ሀ. አዎን ለ. የለም ሐ. አላውቅም

ክፍል አምስት፤ እባክዎትን በርስዎ አመለካከት አጭር መልስ በመስጠት ሃሳብዎን ይግለፁ፤

16. በተቋሙ ውስጥ የመሣሪያዎችና የሃብት ብክነት ምክንያት ምን ይመስለዎታል? _____

17. በእርስዎ አመለካከት ለተፈጠረው የሃብት አጠቃቀም ችግር የተሻለ መፍትሄ ምን ይመስልዎታል? _____

በአዲስ አበባ ዩኒቨርሲቲ
የድህረ ምረቃ ፕሮግራም
የቢዝነስ ትምህርት ክፍል

በአዲስ አበባ ከተማ አስተዳደር ትም/ቢሮ መደበኛ ያልሆነው የቴክኒክና ሙያ ትም/ሥልጠና የመንግሥት ተቋማት የጥሬ ሃብት ግዢ አስፈጻሚ አካላትን ለማሳተፍ የተዘጋጀ ቃለ መጠይቅ፤

- የክፍለ ከተማ ስም _____
- የማሠልጠኛው ስም _____
- አሁን የያዙት የሥራ መደብ _____
- የትምህርት ደረጃ _____
- የሠለጠኑበት የትም/ዓይነት _____
 ዕድሜ _____ ያታ _____ የአገልግሎት ዘመን _____

መመሪያ:- ግልፅና ነፃ ሆነው ቃለ መጠይቅና እንዲሞሉ ይጠየቃሉ፡

1. በማሠልጠኛ ተቋማር ደረጃ የተገዙት ጥሬ እቃዎች በትክክል በሥራ ላይ ይውላሉ? _____

2. በእርስዎ አመለካከት ተቋሙ በትክክል በጥሬ እቃ አጠቃቀም ላይ ያቅዳል? _____

3. በተቋሙ ውስጥ ያሉት የማሠልጠኛው ማህበረሰብ በጥሬ ሃብት አጠቃቀም ላይ ይላቸው የመቆርቆር ስሜት ምን ይመስላል? _____

4. በተቋሙ ውስጥ ያለው ጥሬ ሃብት ፕሮግራሙን ለማስኬድ ምን ያህል ብቁ ነው? _____

5. የጥሬ ሃብት ግዢ አፈጻፀም ፕሮግራሙን ለማስፈፀም ምን ያህል ብቃት አለው ይላሉ? _____

6. በግዢ አፈጻፀም ላይ ምን ችግሮችን ተገንዝበዋል? _____

7. በተቋሙ ውስጥ የጥሬ ሃብት አደያዝና ክትትል /በመጋዘንና በኢንቬስተር/ ምን ያህል ተግባራዊ ሆኗል? _____

8. በእርስዎ አመለካከት ተቋሙ ወልባጆች በሥልጠናው ሒደት ላይ ዝቢ የሚያስገኙ ምርቶች ላይ ያበረታታል? _____

9. በጥሬ ሃብት አጠቃቀም ላይ ምን ጎሳ ጎላ ያሉ ችግሮችን ተረድተዋል? ታዘበዋል? _____

10. በጥሬ ሃብት፣ ንብረት፣ መሣሪያዎች አጠቃቀም ላይ ያሉትን ችግሮች በምን መስክ መፍትሄ ይኖራቸዋል ብለው ያስባሉ? ቢዘረዝሩልን _____

Annex 1

Rate of Returns of Questionnaire

No	Sample Training Centers	Principals			Trainees			Trainers			Experts			Purchasers			Remark	
		Expected	Collected		Expected	Collected		Expected	Collected		Expected	Collected		Expected	Collected			
		No	No	%	No	No	%	No	No	%	No	No	%	No	No	%		
1	AWARE	1	1	100	23	23	100	3	3	100	1	1	100	1	1	100		
2	FERENSAY	1	1	100	18	18	100	4	4	100	1	1	100	1	1	100		
3	KOTEBE	1	1	100	19	19	100	3	3	100	}				1	1	100	
4	LIDETA	1	1	100	14	14	100	5	5	100		1	1	100	1	1	100	
5	SHIROMEDA	1	1	100	35	35	100	3	3	100	1	1	100	1	1	100		
TOTAL		5	5	100	109	109	100	18	18	100	4	4	100	5	5	100		
								AAEB		3	3	100						
								Total		7	7	100						

Total Intended Respondents - 144

Annex 2

**Drop-out Rate of Primary School (Grade 1-8)
In Addis Ababa From 1994 E.C-1996E.C**

Year	Enrolled		Drop out	
	Boys	Girls	Boys	Girls
1994 E.C	102%	103.30%	0.80%	1.00%
1995 E.C	125%	113%	1.00%	1.70%
1996 E.C	106%	110%	0.10%	-0.60%

**Source - Addis Ababa Education Bureau Plan-Program
Service 1997 E.C**

Annex 3

Cost for Training Materials by Trades.

Cost for training material by trades based on estimates published by the MOE			
Trade	Birr	Trade	Birr
Beginner Accountant	264	Surveying	963
Junior Secretary	283	Building construction	954
Purchase & Insurance Operator	274	Road construction	479
Purchase, stores & freight clerk	251	Technical Drawing	479
Sales Person	243	Textile Craft Person	487
Information Technology	476	Tailor	508
Auto Mechanics	1301	Dress maker	493
Electricity	1347	Bakery and Confectionary	1556
Machine Technology	3550	Cook	1429
General Mechanics	1960	Hotel Service Provider	231
Electronics	1143	House manager	577
Wood work	907	Hair dresser	460
Drafting	906		

Ministry of Education: TVET Financing Framework 2006.

Annex 4

List of NFTVET Training Center by Trades and Location/ sub-cities

No	Name of Training Center	Sub City	Trades/Vocational					Remarks
			Metal	Const.	Car/Paint	Plumbing	electricity	
1	Akaki Jun/TVET	Akaki	-	✓	✓	✓	✓	
2	AwareJun/TVET	Arada	✓	✓	✓	✓	✓	
3	Bole Jun/TVET	Bole	✓	✓	✓	-	-	
4	Ferensay Jun/TVET	Yeka	✓	✓	✓	✓	✓	
5	FitberJun/TVET	Kirkos	✓	✓	✓	✓	-	
6	Gofa Jun/TVET	Nifasslk Lafto	✓	✓	✓	✓	✓	
7	Kolfe Jun/TVET	Kolfe Keraneo	✓	✓	✓	-	✓	
8	Kotebe Jun/TVET	Yeka	✓	✓	✓	✓	-	
9	LidetaJun/TVET	Lideta	✓	✓	✓	✓	✓	
10	Shiromeda Jun/TVET	Guleleit	✓	✓	✓	✓	✓	

**Source - Addis Ababa Education Bureau NFTVET
Department 1999 E.C.**

Annex 5

Ethiopian TVET Qualification System

Age	Grade	System	
19		Higher education	Formal TVET
18	12	Upper Secondary	
17	11	Education	
16	10	General Secondary	
15	9	Education	
14	8	Primary Education	Non-Formal TVET
13	7		
12	6		
11	4		

Source - MOE - 1996E.C

Annex 6

ANNUAL BUDGET OF THREE SAMPLES NFTVET CENTERS IN THREE YEARS

No	Training Center	2004/05	2005/06	2006/07
1	Aware Jun/V/T	178,500.00	152,500.00	140,900.00
2	Kotebe Jun/V/T	151,950.00	173,800.00	373,300.00
3	Ferensay Jun/V/T	80,00.00	100,000.00	100,00.00

**Source - Addis Ababa Education Bureau NFTVET
Department 1999 E.C**

Annex 7

Enrollment and Drop-out Rate in the Government NFTVET in Addis Ababa In the year 1997-1999E.C

No	Years in Eth.c	Enrollment			Drop outs			Remarks
		M	F	Total	M	F	Total	
1	1997E.C	937	366	1303	288	123	411	
2	1998E.C	879	152	1031	13	118	131	
3	1999E.C	946	120	1033	28	14	42	
	Total	2762	638	3400	329	255	584	

Source - Addis Ababa Education Bureau-NFTVET Department

Annex 8

Trainers of NFTVET at Junior Level in Addis Ababa by Qualification in the year 2000 E.C

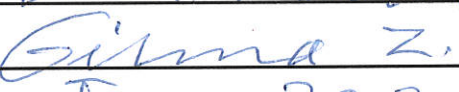
No	Name of Training Center	Qualification		Total	Remark
		Certificate	Diploma TVET		
1	Akaki Jun/TVET	4	1	5	
2	AwareJ un/TVET	4	2	6	
3	Bole Jun/TVET	5	4	9	
4	Ferensay Jun/TVET	3	4	7	
5	FitberJun/TVET	5	3	8	
6	Gofa Jun/TVET	4	2	6	
7	Kolfe Jun/TVET	3	3	6	
8	Kotebe Jun/TVET	4	2	6	
9	LidetaJun/TVET	3	7	10	
10	Shiromeda Jun/TVET	4	3	7	

Declaration

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

Name Takele Abate
Signature 
Date of submission June 20/2008

This Thesis has been submitted for examination with my approval as a University Advisor

Name Girma Zewdie
Signature 
Date of Approval June 20, 2008