



# KOMBOLCHA POLYTECHNIC COLLEGE (KPC)

**EAST AFRICA SKILLS FOR TRANSFORMATION AND  
REGIONAL INTEGRATION PROJECT (EASTRIP)**

**FINAL REPORT OF THE 2021-2022 GRADUATES TRACER STUDY**



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# Tracer Study of the graduates of KOMBOLCHA POLYTECHNIC COLLEGE (KPC)

**(FINAL REPORT)**

## **Disclaimer 2024**

This report was prepared by **Walya Management Consultancy and Training PLC**. The views and ideas incorporated into this study report do not necessarily represent and reflect those of the KPC or EASTRIP Project Office.

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**Walya Management Consultancy and Training PLC**

## ACRONYMS/ABBREVIATIONS

CBET	Competency-based Education and Training
COC	Certificate of Competence
EASTRIP	East African Skills for Transformation and Regional Integration Project
E.C	Ethiopian Calendar
EFY	Ethiopian Fiscal Year
GoE	Government of Ethiopia
Freq	Frequency
HEI	Higher Education Institution
ICT	Information Communication Technology
ILO	International Labor Organization
KII	Key Informant Interview
KPC	Kombolcha Polytechnic College
LMMIS	Labor Market Management Information System
MoE	Ministry of Education
NGOs	Non-Governmental Organizations
OS	Occupational Standards
PIU	Program Implement Unit
SPSS	Statistical Package for Social Scientists
TVET	Technical and Vocational Education and Training
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization

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## EXECUTIVE SUMMARY

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Kombolcha Polytechnic College (KPC) has been granted to implement East African Skills Transformation and Regional Integration project (EASTRIP). As per the EASTRIP Appraisal Document (PAD), the EASTRIP planned to improve the quality and relevance of TVET programs, measured by the share of graduates who are employed within six months after graduation and the number of demand-driven programs developed that are accredited and/or industry recognized. Consequently, conducting tracer study six months after graduation becomes one of the development objective indicators of EASTRIP. The planned tracer study is essential to learn more about the status of their graduates as well as the effectiveness of their training programs in view of the market demand. It provides valuable insight into graduates' status of employment, challenges and successes at workplaces, living conditions, and future plans for enhancing the effectiveness of their training programs. Thus, the purpose of this study was to conduct a tracer study of the 2021-22 graduates of Kombolcha Polytechnic College. The study aims to measure the relevance of KPC's training programs and the number of graduated trainees who have been employed or unemployed in their fields of training and self-employed, as well as to assess their skill gaps for further training and curriculum review and new curriculum design.

### Methodology

The tracer study employed a mixed and concurrent quantitative and qualitative research design. Both quantitative and qualitative data were collected from 5 senior leaders of the College, 186 graduates of the 2021/22 of KPC, 36 trainers and 29 of employers of the KPC graduates using three survey questionnaires, the Key Informant Interview guides, and document reviews. While the analysis of quantitative data was made by applying descriptive (cross-tab) analysis, such as frequency counts, percentage and mean, the qualitative data was analyzed through content and thematic analysis. Tables, bar-charts, and pie-charts were used to present the data collected from primary and secondary sources. The following key findings were obtained:

### MAIN FINDINGS

A total of 256 individuals from the four respondent groups; viz., 5 senior leaders of the College, the 2021/22 graduates 186(90%) of KPC, 36(100%) trainers and 29(97%) of employers of the KPC graduates have participated in this study. The study showed that about 69% of graduates were Level-IV. Most 136(73.11%) of the graduates reported that they were employed within six months after graduation. The study found that 35(60.34%) of female and 101(76.6%) of male graduates were employed within six months after graduation (see Table 4.3 for details). In terms of their employment status in the first six months, 91(49%) have become wage-employed; 39(21%) reported as self-employed; and 6(3.23%) were pursuing further training. The majority 29 (31.86%) of the wage-employed graduates were from Agriculture Department followed by Electrical Electronics Technology 26 (28.57%), and then graduates from the Water Supply and Sanitation 19(20.87%) Department. Most [70(71.4%)] of the wage-employed graduates identified themselves as permanent employees and 63(64.3%) of them were working between 33 to 48 hours per week, which is almost in line with the national working hours allotted for public organizations. Agriculture, forestry and fishing 33 (23.9%), manufacturing (such as garment, textile or related) 18(13%), and construction sector 18(13%) were among the top three employers of KPC graduates. Nonetheless, the 19(65.55%) employers revealed that they did not easily find employees with needed skills. The results of this tracer study revealed that 62% of the KPC graduates of 2021/22 hired in their areas of specialization. However, the Construction and Automotive Departments were lower than the rest departments in terms of the wage-employment. The majority [15 (38.46%)] of graduates from the

Construction Technology Department were self-employed. Most 19(38%) of the unemployed graduates were from the Water Supply and Sanitation Department followed by Electrical Electronics Technology Department 15(30%).

With regard to the attributes/qualities employers look for in graduates during the recruitment, field of specialization 20(69%), academic results 19(65.5%), result of recruitment examination 20(69%); personal presentation 18(62%), and ability to work in multicultural environment 18(62%) were considered by employers to recruit graduates of KPC. In terms of the alignment of training with expectation of employers at work place, 62% of the employed graduates of KPC confirmed the existence of strong relationship between their trainings at KPC and current jobs. Those who 38% said the absence of relationship between their trainings and current jobs indicated the following reasons: unable to get job fields of study (22%) and found job with better salary and benefit in unrelated fields (7%). The overall mean score for the level of satisfaction of KPC graduates towards their current job was 3.3, indicating moderate satisfaction among the graduates when measured against 10 indicators. Some of the causes for not satisfying in their jobs included: inadequate career advancement prospects (2.68), work environment (2.75), and income and benefits (2.91).

With regard to their level of satisfaction with the overall academic management at KPC, the trainers and graduates were satisfied with academic management capacity at KPC with overall mean score of 3.30 and 3.22, respectively. Accordingly, both the trainers and the graduates were satisfied towards the senior leadership's academic management capacity at KPC with mean score of 3.5 and 3.44, respectively. Similarly, the trainers and the graduates were satisfied with the academic management capacity at department level and external collaboration (such as external assessors, guest lecturers, industry experts, exchange programs). Nonetheless, the graduates and the trainers were not satisfied with capacity of administrative staff to provide services at KPC; and KPC support for students on careers advice and guidance such as help in finding jobs. The findings revealed that 97.2% of the trainers of KPC reported that they have program review experiences at KPC. But 41.67% of the trainers reported that program reviews were undertaken in 2 to 4 years period. This study showed that nearly 19 (53%) of trainers at KPC have participated in the industrial exchange program. Moreover, of all trainers who reported their participation in the industrial exchange program, the majority 14 (63.2%) of them have not participated in any of industrial exchange program for more than a year. Most 31(86.1%) of the KPC trainers used occupation standards (OS) in reviewing curriculum. With regard to the ratio of practical competencies and theoretical knowledge, 23(62%) of the trainers confirmed that they maintained a 70:30 ratio as per the national TVET strategy. During the interviews with the dean and vice deans, it was possible to learn that the industrial town of Komblocha created a huge opportunities to implement a 70:30 ratio of practical competencies and theoretical knowledge.

The trainers and graduates were (moderately) satisfied with overall resources facilities at KPC with mean scores of 3.22 and 3.03, respectively. However, they (the trainers and graduates) were not satisfied with (i) availability and functionality of IT facilities with mean scores of 2.92 and 2.26, respectively; (ii) availability of recreational facilities with mean scores of 2.19 and 2.47, respectively; and availability of Audio-visual Aids with mean score of 2.11. Data collected through the series of interviews showed that the college has poor recreational facilities that partly undermine the quality of the working environment. In general, however, there is always gap with equipment that goes with modern technology.

Most (61.75%) of employers reported as they engaged in the cooperative learning program with KPC and also 75% of them stated that trainees of KPC have been undergoing cooperative training at their industries. As per one participant in the interview, *a number of industries accepted the KPC trainers for cooperative training but industries are not still fully aware of the goals of cooperative training in properly training trainees.* However, 95.2% of the employers indicated as they have faced challenges with KPC trainees enrolled in cooperative learning at their industry due to high level of wastage and poor time management. Surprisingly, 74% of graduate employers did not have industrial exchange with KPC Staff, which can hinder continuous alignment of the training programs with industrial demands.

This study found that the graduates at KPC were satisfied with overall outcomes of the training programs at KPC with mean score of 3.26. Moreover, the graduates were satisfied with all indicators of the training outputs and outcomes except IT skills with mean score of 2.81 with which the majority of the graduates were not satisfied. The majority of trainers were also satisfied with the outcomes of training programs with overall mean score of 3.37. More than (92.9%) of study participants reported that they will recommend KPC's training programs for anyone who is considering attending a specific TVET college.

## CONCLUSIONS

On the basis of the results of the study, it is safe to conclude that KPC is imparting quality and relevance TVET that culminate into the employment of the majority of its graduates. The majority of KPC graduates were employed within six months after graduation time. The KPC graduates were employed based on their field of study and satisfied with their current job. The result of the study also shows that trainers' quality in program delivery was up to the training requirements and the quality of training delivered by the College was satisfactory. The graduates of KPC and their employers were satisfied with the overall performances of graduates. Nonetheless, there are still some shortcomings in terms of implementing cooperative training and industrial exchange program.

## RECOMMENDATIONS

The following recommendations are forwarded for improving the effectiveness and efficiency of the College to meet the need of the job market:

- I. **Employment status:** There should be updated labour market data to match the supply and demand of skilled workforce. In this regard, strong collaborations with the industry sector are recommended. Given that the majority of graduates from the Water Supply and Sanitation Department and Electrical Electronics Technology Department are still looking for jobs, there is a need to consult with potential employers and sectorial offices of the said departments to align the training program with their specific needs.
- II. **Labour Market Information:** There should be updated labour market information that facilitates job search efforts of graduates. The Ministry of Labour and Skills or its affiliated organs at lower levels or any government bodies in charge of labour market information system at the Amhara Regional should provide updated information for graduates before graduation.
- III. **Professionalization of administrative support staff:** The senior leaders of KPC are advised to build the overall capacities of their administrative support staff for establishing an effective and efficient stakeholder management system. KPC should provide support for trainees on careers advice and guidance such as help in finding jobs. This capacity building

endeavor will be based on a needs assessment, which is translated into a capacity building plan to be implemented.

- IV. Occupational standards:** The Ministry of Labour and Skills should genuinely involve industry, sectorial ministries and private sector during the preparation and updating the occupational standards. Efforts need to be exerted to work on the occupational standards so as to address the mismatch between labour supply and demand.
- V. Reviewing and upgrading curriculum:** There needs to be in-house capacity for reviewing and upgrading curriculum more urgently at the Water Supply and Sanitation Department and Electrical Electronics Technology Department. In all departments, particular attentions need to be given on soft skills on communication, critical thinking, information technology, human relations, problem-solving, etc.
- VI. Training methodology:** It is suggested for trainers that they need to improve their engagement with industry through industrial attachment programs, continuously update their practical skills, instructional materials, and upgrade the art of training and their knowledge of the subject matter. A series of capacity development programs like industrial attachment programs on the basis of departmental based capacity gaps and needs should be developed. There needs to be strong instructional management at the College.
- VII. Cooperative training:** A strong college-industry internship program is highly recommended to implement effective and efficient cooperative training. Demand-driven industry specific short-term and long-term training services could strengthen the partnership.
- VIII. Facility and Resources:** There need to be adequate training inputs in the form of enough books and softcopy reference materials and modern teaching and learning technology (e.g., video-supported training), adequate and better quality (modern) workshops with state of the arts training inputs. It is recommended to the college create a recreational facilities for both the college community and guests.

## SECTION ONE: INTRODUCTION

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This section introduces the Kombolcha Polytechnic College's graduate tracer study of the academic year 2021-2022. The first subsection briefly introduces the background of the consultancy service. The second subsection deals with the objectives of the assignment followed by the significance of the services in the third subsection. The scope and deliverables of the study are indicated in Subsections four and five, respectively.

### 1.1. BACKGROUND

Technical and Vocational Education and Training (hereafter TVET)<sup>1</sup> is gaining momentum in the developing and developed world as a policy priority to increase labour productivity and enable economic transformation than ever before. There is now growing acknowledgement among diverse salient stakeholders on the importance of TVET to foster youth employment, contribute to the economic development of African countries, and to gain competitiveness at the global market. African TVET providers are, however, struggling with widespread low funding, shortage of modern training facilities and equipment, lack of industry driven programs with modern curricula and pedagogy, and teachers/trainers with low competency and low pay (see World Bank, 2018:14). Ethiopia is not exception in this regard. In the last decades, Ethiopia has rapidly expanded access to TVET, while its national TVET system has faced persistent challenges related to quality and relevance, educational governance and management, image, and TVET financing (MoE, 2015; MoE, 2016; MoE, 2017).

Given strong commitments to transforming the continent through industrialization (AU, 2013), a regional integration is part of the development and transformation strategy for Africa. This regional approach has now been serving as a lens to TVET development. In recognition of the fact that the regional approach to developing specialised TVET skills can have a number of benefits and can complement existing national skills and TVET programmes (World Bank, 2018), the World Bank approved the East African Skills for Transformation and Regional Integration Project (EASTRIP<sup>2</sup>) with the East African countries of Ethiopia, Kenya and Tanzania in October 2018. The project was approved by the World Bank-IDA financing in October 2018 to address critical skills shortage in growing sectors including agriculture, energy, ICT, Manufacturing and Transport in Ethiopia, Kenya and Tanzania and to promote regional integration. The EASTRIP Project Development Objective (PDO) is to increase the access and improve the quality of TVET programs in selected Regional Flagship TVET Institutes and to support regional integration in East Africa. The project supports the development of highly specialized TVET programs as well as industry-recognized short-term certificate level training. It will train technicians and provide training of teachers/trainers at the certificate, diploma and degree levels, targeting regional priority sectors in transport, energy, manufacturing, and ICT. The PDO will be achieved through complementary interventions at three different levels, including institutes, national, and regional levels.

Based on the principles of government nomination and competitive selection, Kombolcha Polytechnic College (hereafter KPC) was selected from Ethiopia as one of the 16 Regional Flagship TVET Institutes. KPC is a government owned polytechnic college located in the Amhara Region of Ethiopia. The College was established in 2001 as an educational institution with a name Kombolcha

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<sup>1</sup> As part and parcel of the education sector, TVET extends from primary education to higher education in a cross-cutting manner.

<sup>2</sup> Of the total US\$293 million, 150 million is for Ethiopia

Technical and Vocational Education and Training institute. The institute commenced offering short-term training programs in Borkena Campus known for its closeness to the Borkena River<sup>3</sup>. KPC is required to produce motivated and adaptable lower and middle level work force capable of driving economic growth and development by aligning itself to the labour- market demand. Kombolcha Polytechnic College has currently three campuses in which it offers formal and non-formal training. The College is running 8 departments<sup>4</sup>. The College, a satellite campus for the FDRE Technical and Vocational Training Institute, has also been running a BSC degree Program for TVET Trainers in 4 departments. KPC is certified in ISO 9001:2008 Quality Management.

As briefly mentioned above, Kombolcha Polytechnic College has been granted to implement East African Skills Transformation and Regional Integration project. The Project (EASTRIP) brings a regional approach to developing the specialized TVET skills by creating a small cluster of regional TVET centres of Excellence. Each center will specialize in specific sectors and occupations with niche programs in highly specialized TVET diploma and degree programs, as well as industry recognized short-term courses, mobility of students, graduates, and faculty will facilitate a healthy exchange of skilled labour within the region, so that each country does not have to produce all the skills at once. The sharing of standards, curriculum, and training facilities will help reduce costs for each center. At the same time, demonstrations will help inform and guide the broader array of national TVET reforms in the three countries. At KPC level, the objectives of the project will be achieved through: (i) strengthening governance and management; (ii) institutionalizing industry links; (iii) developing market relevant and competency-based training programs; (iv) training of TVET managers and teachers/trainers; (v) provision of key training facilities and equipment; and (vi) outreach and support for non-project national TVET institutes (see World Bank, 2018).

As per the EASTRIP Appraisal Document (PAD), the EASTRIP planned to improve the quality and relevance of TVET programs, measured by the share of graduates who are employed within six months after graduation and the number of demand-driven programs developed that are accredited and/or industry recognized. Consequently, conducting tracer study six months after graduation becomes one of the development objective indicators of EASTRIP. The planned tracer study is essential to learn more about the status of their graduates as well as the effectiveness of their training programs in view of the market demand. It provides valuable insight into graduates' status of employment, challenges and successes at workplaces, living conditions, and future plans for enhancing the effectiveness of their training programs. In response to the provision in the PAD, KPC/EASTRIP has hired **Walya Management Consultancy and Training PLC** to conduct this tracer study as part of the support to lay foundation for better graduate employment and fulfilling trainers' skill and other resource gaps to remove the challenges of delivering quality training programs. The consultant produced this KPC graduate tracer study report in May 2024.

## **I.2 OBJECTIVES OF THE STUDY**

### **I.2.1 GENERAL OBJECTIVE**

The primary objective of this tracer survey is to measure the relevance of Kombolcha Polytechnic College training programs and the number of graduated trainees who have been employed or

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<sup>3</sup> The river starts from the highland of Wollo and flows towards the centers of Dessie and Kombolcha and mix with the Awash River in the Afar Region

<sup>4</sup> Instrumentation and Control Servicing, Mechatronics Instrumentation Servicing Management, Onsite Building Construction Management, Natural Resources, Water Supply Sanitation and Supervision, Metal Engineering Production Management, Water Supply and Sanitation Management, and Auto-Engine Servicing.

unemployed in their fields of training and self-employed, as well as to assess their skill gaps for further training and curriculum review and new curriculum design.

### **I.2.2 SPECIFIC OBJECTIVES**

The specific objectives of the study are:

- ☞ To provide adequate information on the where about and skill adequacy and employability of TVET graduates;
- ☞ To learn how effective and efficient training centers are meeting their objectives of creating qualified skilled labor force;
- ☞ To learn the entrepreneurial attitudes among graduates for self-employment;
- ☞ To assess the skills gaps and training needs of the TVET graduates;
- ☞ To identify changes in the labor market demand;
- ☞ To know the number of trainees finding employment on the field of occupations they had been trained; and
- ☞ To asses why unemployed trainee graduates could not be able to find employment in the labor market.

### **I.3 SIGNIFICANCE OF THE TRACER STUDY**

This tracer study will contribute for informing practices as well as filling out research gaps. Specifically, it may have the following potential significances:

- ❑ It helps KPC to get informed about the status of its graduate employment rate in every occupation and the factors that may have affected the employability of its graduates.
- ❑ Gives graduates studied a chance to get information about their skill gaps and what to do in their future career;
- ❑ It helps potential trainees and those in the track to get a clue about their career plan;
- ❑ It may assist employers for filling the skill gaps of their employees from KCP and gives them an opportunity to appeal their skills demands for training institutions. It may also create better understanding on the industry particularly regarding its roles in the fruitfulness of TVET and the benefits it derives thereupon.
- ❑ It may help as a resource material for future similar studies and may motivate researchers to give adequate attention for TVET in their future research endeavors.
- ❑ Since the TVET system is in a continuous reform process, the current tracer study can give some insights to policy makers regarding the status, prospects, and challenges faced in the practice of TVET and the employability of its graduates.

### **I.4 SCOPE OF THE TRACER STUDY**

The Tracer study assesses the employment status of graduates of the academic year 2021-2022, all departments and all levels who passed the national competence examination. The study focused on the following issues:

- ❑ Design the data collection instruments in consultation with the college management and PIU staff according to the objectives of the study.
- ❑ Prepare inception report with a clear outline of activities and methods, and tools of data collection aiming to guide the implementation of tracer study in the future.
- ❑ Analyze the employment status of the graduates by sex, on the relevance of training offered by the KPC, on employers' satisfaction with the graduates, and on the performance of graduates who had undergone COC.

- ❑ Analyze employment rate and types (self and wage employment (formal & informal), unemployment of graduate)
- ❑ Review and evaluate the effectiveness and relevance of the training and employment support from both the graduates' and employers' perspectives to assess whether trainees get the quality of training that matches job situations and standards.
- ❑ Forward recommendations on the future training areas to meet the needs of the labor market on the school-to-work transition program while at school and during training and on strengthening linkages between employers and training institutes.
- ❑ Make recommendations for improving employment opportunities and competitiveness of TVET graduates as well as the effectiveness, relevance and quality of the training.

## **I.5 DELIVERABLES**

A validation workshop will be conducted to get feedback on the main findings of this tracer study report. Based on the recommendation of the workshop, a final report will be produced. The final study report will contain (i) Executive Summary, (ii) Introduction, (iii) Methodology, (iv) Data Analysis, (v) Emerging Issues/Challenges, (vi) Conclusions and Recommendations, and (vii) Annex including References, Appendices. The study report is written in English language and will be submitted in soft, and hard copy to the client.

## **I.6 STRUCTURE OF THE STUDY**

This report has been organized into five sections. Section I broadly presents the background of the assignment; and outlines the objectives of the study. Following this introductory Section I, Section 2 presents the literature review. Section Three discusses the research methodology by focusing on the research design, sources of data, sampling techniques, data collection instruments, and data analysis techniques. Section 4 presents the results of the data analysis. Section 5 draws conclusions and suggests recommendations.

## SECTION TWO: LITERATURE REVIEW

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### 2.1. CONCEPTS OF EMPLOYMENT

Like any other market, the labour market consists of a supply side and a demand side. The labour supply of the population, referred to as the economically active population or labour force, has two components: employed persons and unemployed persons. The labour demand of enterprises and other production units, too, can be broken down in two components: jobs (filled posts) and job vacancies (unfilled posts). The international definition of employment adopted by the 13<sup>th</sup> International Conference of Labour Statisticians (ICLS) is formulated in terms of the labour force framework, i.e. with respect to a short reference period. The definition distinguishes between paid employment (employees including apprentices or trainees and members of the armed forces) and self-employment (employers, own-account workers including producers of goods for own final use, members of producers' co-operatives, and contributing family workers). It provides separate criteria for the measurement of these two types of employment. According to the definition, the "employed" comprise all persons above the age specified for measuring the economically active population (e.g. 15 years) who, during a specified short period of either one week or one day, were in the following categories:

(a) Paid employment:

(a1) *at work*: persons who, during the reference period, performed some work (i.e. at least one hour) for wage or salary, in cash or in kind;

(a2) *with a job but not at work*: persons who, having already worked in their present job, were temporarily not at work during the reference period and had a formal attachment to their job;

(b) Self-employment:

(b1) *at work*: persons who, during the reference period, performed some work (i.e. at least one hour) for profit or family gain, in cash or in kind;

(b2) *with an enterprise but not at work*: persons with an enterprise (which may be a business enterprise, a farm or a service undertaking) who were temporarily not at work during the reference period for any specific reason.

The concept of work for the measurement of employment corresponds to the concept of economic activity as derived from the System of National Accounts (SNA) production boundary. This means that the notion of "work for pay, profit or family gain" in the definition of employment should be interpreted as referring to any activity falling within the SNA production boundary.

### 2.2. EMPLOYMENT, DETERMENTS OF GRADUATES EMPLOYABILITY AND RECRUITMENT

Several theories of employability are found in literatures. These include: a Human Capital Theory (see Becker, 2009), a Social Capital Theory (see Fugate et al., 2004), a Consensus Theory (see Selvadural et. al., 2012), and a Conflict Theory (see Selvadural et. al., 2012), among others. The human capital theory highlights education as the key enabler of economy and global economic participation (Becker, 2009). In the employability literature, social capital has been recognised by several authors as a potential determinant of employability (see Fugate et. al., 2004). This theory argues that the strength and size of a personal network is considered important in order to be employable, and through work and contact with other people, career opportunities arise. The conflict theory on the other hand, argues that

employability cannot be handled alone by the training institutions like TVET but that it should be a partnership responsibility for both to provide work place experience that will increase employability (Selvadural et. al., 2012). The consensus theory of employability believes that generic skills development through human capital injection will result in sharpening employability skills of graduates thereby accelerating their career development (Selvadural et. al., 2012).

From the aforementioned employability theories, one can learn that the concept of employability is to be a 'synergic combination of personal qualities, skills of various kinds and subject understanding' (see Yorke & Knight, 2007; Boden & Nedeva, 2010). Nilsson (2010) in his study defines employability as the ability of individuals to find employment and remain employed. Now-a-days, employers want to select employees that possess skills and capabilities of interest to the company (Diamond and Rajan 2005). According to Bridgstock (2009), employers have mainly given attention on personal attributes, which will mainly contribute to overall employability. Personal attributes include loyalty, commitment, honesty and integrity, enthusiasm, reliability, personal presentation, common sense, positive self-esteem, a sense of humor, a balanced attitude to work and home life, an ability to deal with pressure, and, motivation and adaptability. Kamau and Waudo (2012) suggest that skilled employees should have personal attributes. This includes people with passion and the right attitude, foresight, creativity, confidence, ability to motivate flexibility and respect for others.

Govender and Wait (2017) define employability as the ability of graduates to start work as effective professional employees from first day of employment. Minocha Hristova and Reynolds (2017) employability is the graduate's ability to use their specific skills set in a way that is expected by the employer for the benefit of the organization. Copps & Plimmer (2013) and Govender & Wait (2017) argue that employable graduates are easily distinguishable from the rest because they have work-needed skills, distinct attributes and characteristics. They also identified them as lifelong learning, professional development, ability to apply and integrate theory and practices, decision-making and collaboration. Hillage and Pollard (1998) describe employability as person's ability to gain employment, sustain employment, shift to other functions within the same firm, gain new employment if needed and function in a work capacity that brings fulfillment and satisfaction.

Changes in the societal environment including technological changes and globalization continue to increase the demand for skilled workers that can operate successfully in the global environment (Karoly, 2010). Particularly, changes in labour market factors such as mass enrolment in training Institutions (Tan and French-Arnold, 2012) and advances in technology (Hager, Holland and Vecket, 2002; Datta, 2001) have changed the way organizations recruit graduates (Steiner and Gilliland, 1996; Anderson and Witvliet, 2008). In this context, organizations are becoming more flexible and responsive and accordingly are changing their preferred recruitment strategies in response to labour market conditions (Russo, Rietveld, Nijkamp and Gorter, 2000; Russo, Gorter and Schettkat 2001; Wilk and Cappelli, 2003). Studies on recruitment have focused on how organizations attract job applicants (Larsen and Phillips; 2002; David, 2005; Celani and Singh, 2011), recruitment sources (Rynes, 1991) and employers' recruitment behaviour (Behrenz, 2001; Gorter, Nijkamp, and Rietveld, 1996; DeVaro, 2005).

There has also been increased recognition of the need to explore the strategies organizations and corporate recruiters use to recruit and attract qualified applicants in response to the shift in labour

market conditions (Carlson, Connerley and Mehan, 2002). Furthermore, few studies have conceptualized and empirically addressed the processes and mechanisms used that show how employability skills influence corporate recruiters' decisions when recruiting new graduates (Stewart and Knowles, 2000; Mora and Ferrer-i-Carbonell, 2009). Additionally, during the recruitment process corporate recruiters look for personal qualities and characteristics such as professional knowledge, personal engagement and social competence (Behrenz, 2001).

Studies show that recruiters use both formal (graduate recruitment programs, advertisement in newspapers and company websites) and informal (word of mouth and interns) recruitment channels to attract new graduates. In relation to the screening of applicants, there is a growing trend in using tests, particularly aptitude tests to screen applicants. Besides assessing graduates' soft skills, particularly communication and attitude, recruiters also demand that applicants possess basic technical and general knowledge that is assessed during the interview. Branine (2008) contends that employers, irrespective of the size and nature of business, emphasize more on graduates' personal qualities, attitudes and transferable skills compared to the type and level of educational qualification they possess.

Research on recruitment also focuses on job applicants' personal characteristics and individual factors that affect recruiters' decisions during the screening and selection process (Breaugh and Starke, 2000; Rynes, 1991; Cable and Turban, 2001). These factors include education (Becker, 1964; Schultz, 1961), relevant experience (Cranmer, 2006), learning ability (Spence, 1974), positive attitude (Hillage and Pollard, 1998) and indirectly perceivable qualities such as emotional stress and innate abilities (Albrecht, 1981).

Research provides evidence of the link between employability skills (a synergic combination of personal qualities, skills of various kinds and subject understanding) (Knight and Yorke, 2003) and recruitment. A perfect blend of employability skills contributes to enhancing the recruitment decision process (Harvey, 2001) and in particular the recruitment of new graduates in the current labour market. The recruitment process at the organizational level goes through different stages, ranging from advertising the job, the application process, screening of job applicants to selecting the right applicants (Devins and Hogarth, 2005). A successful recruitment process refers to the strategies organizations employ to identify and select the best candidates in order to develop its pool of human resources (Dessler, 2000; Richardson, 1989). The strategies are diverse and largely depend on the employers' sector, the nature of the service and the applicants and involve the exploration of search channels, screening tools and selection criteria. In other instances, an overlap exists between the screening and selection process making it hard to differentiate the tools and/or criteria used during each process.

To attract potential job applicants, recruiters use formal (newspapers, recruitment centres, career talks, graduate programmes) and informal (internal recruitment, word of mouth and informal networks) search methods. The key factors driving employers' choice of recruitment channel include the channel's ability to bring qualified candidates (Gorter, Nijkamp and Rietveld, 1996), labour market conditions (Russo, Rietveld, Nijkamp and Gortez, 1996), the nature of the job (Bunt, McAndrew and Kuechel, 2005) and related costs (Behrenz, 2001). Other factors that affect the recruitment process include socio-demographic factors (gender, economic status and ethnicity) (Blasko, Brennan, Little and Shah, 2002), a

study 30 institution in terms of reputation and image (Deephouse and Carter, 2005; Pampaloni, 2010), as well as the age and experience of the applicant (Behrenz, 2001).

### **2.3. TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING, AND EMPLOYMENT**

Technical and Vocational Education and Training (TVET) is the acquisition of knowledge and skills in an occupation and a tool for human resource development (Badawi, 2013; Tiwari et al., 2012). Principally, it facilitates the employability of citizens, helps to meet the human power needs of the market, paves the way for gainful employment and encourages the youth for further education and training (Adams, 2007; Atchoarena & Delluc, 2001; McGrath et al., 2006). With this role, it enhances the competence, employability, productivity, livelihoods, or socioeconomic well-being of people thereby fostering individual and national development. It is also an indispensable tool to meet the human power needs of the market (Amedorme & Fiagbe, 2013; King & Palmer, 2010). Its prime role is, therefore, to produce a skilled labor force that can adapt to the requirements of the labor market and enhance the socio-economic development of society.

In Sub-Saharan Africa, however, the persistent imbalance between the supply and demand of skilled labor disabled the TVET system from properly meeting the needs of relevance, effectiveness, and efficiency (Choy et al., 2008; Foster as cited in Heyneman, 2009; Haseloff, 2017; UNESCO, 2016). In Ethiopia, for instance, TVET lacked to meet its goals due to the fact that it failed to respond to the market demands and the insignificant achievements relative to expectations (Ministry of Science and Higher Education [MoSHE, 2020]). Financial constraints in TVET institutions denied equipping graduates with competencies that fit the market requirements, particularly due to insufficient infrastructure and equipment and extremely poor throughput (Lolwana, 2017). TVET needs to be market-orientated (provided based on market signals) and competence-based (Gasskov, 2000; Mayombe, 2021, MoE, 2008).

Besides the concern for market orientation, attention to meeting the required quality standards of TVET is equally important to ensure graduate employability and program efficiency (Aring, 2015; Barrick, 2017). In addition to its market orientation, to that effect, TVET is required to be competency-based (Barrick, 2017; Biemans et al., 2009; Hauuanga, 2017). Competency-based education and training (CBET) is an approach where the quality of training provided is measured by the competence achieved than by the quantity and quality of inputs supplied as well as by the type and magnitude of courses taken and the theoretical knowledge acquired by the trainee in a given period (Brockman et al., 2008; Choy et al., 2008; Hauuanga, 2017; Kyobe, 2017). According to these sources, CBET focuses on the performance of trainees (the outcome) in accordance with qualification standards set by the workplace. It takes workplace or occupational standards (OSs) and individual issues into consideration in which a trainee is given the chance to master a competence at his/her own pace within a reasonable time to fit the labor market demand (Barrick, 2017; Brockman et al., 2008; Kyobe, 2017). Hence, CBET is highly essential in stimulating the development and integration of knowledge, skills, and attitudes as well as in bridging the economic demands with the learning needs of trainees (Billett, 2013; King & Palmer, 2010).

The TVET-industry partnership is essential to optimize the relevance, quality, and utility of TVET (Bauer & Gessler, 2017; Kyobe, 2017; Oviawe, 2018). Partnership matters in resolving quality problems

emanating from scarcity of resources, limitations of trainers' competencies, irrelevance of OS, and poor quality of training process (Eichhorst et al., 2012; Dustmann & Schonberg, 2012; Horn, 2013). Dustmann and Schonberg (2012), Eichhorst et al. (2012) and Kyobe (2017) assert that training under the guidance of TVET-industry partnership (the dual approach or cooperative training in Ethiopia) resolves different problems that are inherent in TVET besides the strong public-private collaboration it creates in TVET financing. It contributes to minimizing the mismatch between the supply and demand for skilled labor and the consequent unemployment problems among graduates. Secondly, enterprises and/or companies that provide training can timely adjust and adapt training curricula to the changing demands of the labor market. Thirdly, the approach is more beneficial in providing a suitable environment for both learning and working. Fourthly, by paving the way for early contact with the enterprises and getting an opportunity of working experience, the approach enrolls graduates faster into the labor market, besides creating a better opportunity of understanding the types of jobs and occupations that they prefer for their future careers. In general, the dual or cooperative approach in TVET improves the competence and relevance of TVET (Alet & Bonnal, 2011; Eichhorst et al., 2012; Horn, 2013).

The Ethiopian TVET system envisages "...to create competent and self-reliant citizens to contribute to the economic and social development of the country, thus improving the livelihoods of all Ethiopians and sustainably reducing poverty" (MoE, 2008, p.2). That is because in countries like Ethiopia TVET is highly essential for individual and national development and poverty reduction. Accordingly, efforts have been made to strengthen TVET programs and optimize their socio-economic utility. Such efforts, however, can effectively address their goals only when actions taken are evidence-based or research supported. The present tracer study is, therefore, essential in light of the national commitment envisaged by the government to promote the development and improvement of the livelihood of citizens. It is a study that explores graduates' employability, workplace behaviors, job performances, employers' feedback, and other stakeholders' satisfaction and perspectives on the quality of education and training.

#### **2.4. TRACER STUDY**

Tracer studies can be defined as retrospective analyses of graduates through a standardized survey, which takes place sometime after graduation (normally between 6 months and 3 years). It is an approach that enables education and training institutions to obtain information about possible deficiencies in the educational process and the learning process and can form the basis for planning activities for the improvement in the future. Tracer studies are also known as graduate surveys, alumni surveys, or graduate tracking (Schomburg, 2003).

According to the International Labour Organisation (ILO, 1996), a tracer study is an impact assessment tool where the impact on a target group is traced back to specific elements of a project or programme so that effective and ineffective components of the programme may be identified. Tracer studies also called graduate studies or follow-up studies or destination of leavers from training institution surveys, are also a management tool for planning, monitoring and measuring the relevance of vocational training programmes (Lange, 2001; AAU, 2002; Osei et al., 2015; Mubuuke, Businge and Kiguli-Malwadde, 2014; Gines, 2014). The importance of tracer studies has been recognised for a long time in the higher education landscape. Heidemann's (2011:p.10) study of 45 German higher education institutions concluded that 'tracer studies provide information about the entry into the labour market and workforce as well as retrospective evaluations of study programmes'. According to Heidemann (2011)

tracer studies provide valid information about entry into the labour market and retrospective evaluation of study programmes. The tracer studies will in addition enhance the marketability of education and training programmes (Balingbing, 2014 cited by Osei et al, 2015).

One of the binding tools to ascertain the relevance, quality, and employability of TVET is supporting it with continuous tracer study. That is because the ultimate success of TVET institutions is a function of the employability of its graduates. Conducting graduate tracer study is one-way institutions measure the success of their graduates and thereby of their own. A tracer study is a study that gathers feedback from graduates, employers and other relevant stakeholders to provide TVET institution with vital information about their achievements and progress in their career (Mubuuke et al, 2014). It gathers information on the professional success of the graduates as well as on the relevance of the competencies they acquired from TVET institutions in view of their work places. In addition, graduate tracer studies provide a means for graduates to assess their satisfaction retrospectively with an institution's curriculum and services (Schomburg, 2003). In addition, tracer studies capture information across the spectrum of employment opportunities, rather than concentrating on those who end up in firms. If tracer studies can be periodically repeated for new sets of graduating students, then it may be possible to discover trends in the labor market and to monitor the effectiveness of new institutions and new programs with respect to the future of their graduates (Gasskov, 2000; Schomburg, 2003). In this respect, Burke (2005) states that tracer studies play indispensable roles in evaluating not only employability but also the perceptions of graduates on their learning experiences. In addition, tracer studies help in improving institutions' understanding of the success and failure of their graduates for future consumption. Cognizant of this, the current TVET policy and strategy suggests a tracer study as a tool to assess the outcome and impact of TVET on graduates (MoSHE, 2020).

A tracer study is one of the key tools for providing demand-based relevant TVET (Psacharopoulos & Woodhall, 1985). That is because a tracer study informs about subsequent careers, demands, and employment trends of TVET graduates. If repeated periodically, it undoubtedly delivers authentic and up-to-date information regarding the status of graduates that recently joined the world of work in line with this, the Ministry of Education (MoE) (2008; 2010) recommends TVET delivery under the guidance of a tracer as a premise for relevant and employable TVET. In this respect, MoE strongly advocates that TVET delivery based on market signals helps to address the needs of both the graduates and the labor market.

## SECTION THREE: METHODOLOGY

This section presents the methods and approaches adopted to conduct the Tracer Study of KPC. The section briefly discusses a very comprehensive and detailed methodology in terms of data sources and sampling techniques and process for data collection and analysis; and data quality assurance issues as follows.

### 3.1. APPROACH AND METHODS

As the nature of this assignment is complex, dynamic and multidimensional, involving a large number of actors inside and outside Kombolcha Polytechnic College, the tracer study followed a mixed-methods approach that combines both qualitative and quantitative methods. The mixed-methods approach is chosen for this study based on the assumption that it allows a more complete and synergetic utilization of data; strengthen the rigor of analysis and thereby confidently realizes the specific objectives of the study. This research method provides a better understanding of the research problem than either method by itself (Cohen et al., 2018; Creswell & Plano Clark, 2011) and is useful for triangulating data obtained from diverse groups of respondents in different organizations. Particularly, the tracer study was undertaken through the cross-sectional retrospective method. A concurrent mixed-methods approach was employed to simultaneously collect both quantitative and qualitative data, merge the data, and use the results to understand a research problem so that one data collection form supplies strengths to offset the weaknesses of the other form (Creswell, 2014; Creswell & Plano Clark, 2011) in order to create a meaningful synergy or corroborate evidence drawn from different sources. Accordingly, both the quantitative data through questionnaires and the qualitative data through desk reviews, Key Informant Interviews, and document reviews were collected at the same time and equal emphasis was also given to the analysis of both the quantitative and qualitative data. The overall approach of the study is summarized in Fig.3.1 below.



**Figure 3.1: Overall Approach of the Study**

### 3.2 DATA SOURCES, SAMPLING TECHNIQUES, AND DATA COLLECTION TOOLS

In this Tracer study, data were gathered from both primary and secondary sources. The Consultants applied a variety of participatory methods of data collection techniques including survey questionnaires, In-depth interviews (case analysis), desk studies, and document reviews to get a deeper and more comprehensive understanding of KPC and its graduates.

### 3.2.1. SECONDARY DATA SOURCES

A substantial number of literatures were theoretically and empirically reviewed to inform this tracer study as indicated in Section Two. Some of the key relevant documentations (see Table 3.1 below) that were critically analyzed included but not limited to, the project document (KPC/EASTRIP proposal), previous KPC tracer study reports and labor market surveys, and legislation of various Ethiopian laws and institutions. Furthermore, an attempt was also made to review all other relevant documentation such as national industry strategies, the current TVET strategy; sector-specific reports; previous labor market survey report; and TVET policy of Ethiopia.

**Table 3.1: List of reviewed documents by level**

Level	Desk Review
International	<ul style="list-style-type: none"> <li><input type="checkbox"/> Agenda 2030</li> <li><input type="checkbox"/> GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS: European Centre for the Development of Vocational Training</li> </ul>
Regional/ continental	<ul style="list-style-type: none"> <li><input type="checkbox"/> AU Agenda 2063 and the 'First Ten-Year Implementation Plan of AU Agenda 2063;</li> <li><input type="checkbox"/> The Continental Education Strategy for Africa (CESA 2016-2025);</li> <li><input type="checkbox"/> The Continental Strategy for Technical and Vocational Education and Training (TVET) to Foster Youth Employment;</li> <li><input type="checkbox"/> Plan of Action for the African Decade for Technical, Professional, Entrepreneurial Training and Youth Employment;</li> <li><input type="checkbox"/> Tracer Study Conducted in various African Countries</li> </ul>
National	<ul style="list-style-type: none"> <li><input type="checkbox"/> TVET strategy</li> <li><input type="checkbox"/> Ethiopian Education Development Roadmap(2018-30)</li> <li><input type="checkbox"/> The Technical and Vocational Education and Training Proclamation No. 954/2016;</li> <li><input type="checkbox"/> Policy &amp; Roadmap documents of TVET (or Skills Development) in Ethiopia;</li> <li><input type="checkbox"/> PAD for ESTERIP project</li> <li><input type="checkbox"/> EASTRIP project Strategic Investment plan (SIP);</li> <li><input type="checkbox"/> International/national researches on tracer study;</li> <li><input type="checkbox"/> Tracer Study Conducted in Ethiopia in the areas of the assignment</li> <li><input type="checkbox"/> Labor Market Studies Conducted in Ethiopia</li> </ul>
KPC level	<ul style="list-style-type: none"> <li><input type="checkbox"/> KPC Strategic Plan</li> <li><input type="checkbox"/> Previous Tracer Study</li> <li><input type="checkbox"/> Profile of KPC 2021/22 graduates</li> </ul>

### 3.2.2. PRIMARY DATA SOURCES, SAMPLING TECHNIQUES AND DATA COLLECTION INSTRUMENTS

Multiple sources of evidence under the rationale of triangulation guided the logic behind primary data collection. Under this assignment, much of the primary data were gathered at different levels by using purposive sampling techniques. Four different data collection instruments; viz., three survey questionnaires and interviews were used for the data collection. The application of each of them is briefly explained as follows.

#### 3.2.2.1 Data Collection through Survey Questionnaires

Three survey questionnaires (one for each group of respondent) were used to gather data from the KPC graduates of 2021-2022, trainers and graduate employers. A census method was used to gather data from all KPC graduates of 2021-2022. As per the data obtained from the Registrar Office of KPC, a total of 207 trainees were graduated from the eight training programs under the six departments of

KPC in the academic year 2021/22. The distribution of graduates by program by department is shown in Table 3.2 below (see also list of graduates in Annex 4 and Annex 1). Given the manageable size of the graduates, all of them became subject of the study. Collecting data from all graduates of the year believed to have enhanced the quality of the survey and outputs of the study in various ways. As documented in Table 3.2, nearly 186(90%) of the graduates of KPC in the academic year 2021/22 participated in this study via telephone interviews in which the data collectors recorded the answers given by each respondent on the survey questionnaire of the study.

**Table 3.2: Number of Graduates by Department by Level**

No	Department	Program	Level	Number of graduates (Planned)	Number of graduates (Achieved)
1	Electrical Electronics Technology	Instrumentation and Control Servicing	III	38	32
		Mechatronics Instrumentation Servicing Management	IV	29	17
2	Construction Technology	Onsite Building Construction Management	IV	33	33
3	Agriculture	Natural Resources	IV	29	29
4	Water Supply and Sanitation	Water Supply Sanitation and Supervision	IV	30	30
		Water Supply and Sanitation Management	V	19	18
5	Metal Manufacturing	Metal Engineering Production Management	V	10	8
6	Automotive Technology	Auto-Engine Servicing	IV	19	19
<b>Total</b>				<b>207</b>	<b>186</b>

The second group of the survey respondents was trainers who are in charge of the operating core of the college. Using a stratified random sampling technique, the trainers were divided into trainers and department heads. A total 30 (more than 50%) of the trainers drawn from each department were chosen to participate in the survey by employing simple random sampling technique. All department heads were included in this study (see Table 3.3 below). To summarize, 30 trainers and 6 department heads (100%) participated in the survey questionnaires.

**Table 3.3: Number of Trainers and Department Heads by Department**

No	Department	Number Trainers (Planned)	Number Trainers (Achieved)	Number of Department Heads (Planned)	Number of Department Heads (Achieved)
1	Electrical Electronics Technology	5	5	1	1
2	Construction Technology	5	5	1	1
3	Agriculture	5	5	1	1
4	Water Supply and Sanitation	5	5	1	1
5	Metal Manufacturing	5	5	1	1
6	Automotive Technology	5	5	1	1

No	Department	Number of Trainers (Planned)	Number of Trainers (Achieved)	Number of Department Heads (Planned)	Number of Department Heads (Achieved)
		30	30	6	6

Likewise, the consultancy firm proposed 30 employers to fill in the survey questionnaire prepared on the basis of preliminary data obtained from the college registrar office. This preliminary design was further refined by using a snowball sampling technique, in which the KPC graduates were asked to assist the data collectors in identifying the right employers. Accordingly, 5 employers who have frequently recruited large size of graduates of KPC from each department were selected by using purposive sampling technique. In other words, top employers of the 2021/22 KPC graduates who have reputation and loyalty of employing KPC graduates on the basis of previous experiences and past trend were included in this study as indicated in Table 3.4 below. The sampled employers' classification of business was recorded under Item 4 of Table 4.1 in Section 4. Within each employers/industry, the manager and/or deputy manager or HRM manager of each industry/employer participated in the employer survey using purposive sampling techniques. The data were collected via personal interviews for those industries located in Kombolcha Town and via telephone interviews for those industries that are out of the Kombolcha Town.

**Table 3.4: Sample Employers of KPC Graduates**

No	Department	Number of employers (planned)	Number of employers (Achieved)
1	Electrical Electronics Technology	5	5
2	Construction Technology	5	5
3	Agriculture	5	5
4	Water Supply and Sanitation	5	5
5	Metal Manufacturing	5	5
6	Automotive Technology	5	4
		30	29

### 3.2.2.2 Qualitative Data Collection Using Key Informant Interviews

A series of interview sessions were conducted with Dean and Vice Deans of KPC and EASTRIP Project Team at KPC based on purposive sampling technique as shown in Table 3.5 below. This approach helped the study team to generate more relevant information with regard to different aspects of the study. For instance, the leaders of the college provided important data on the gaps that determine the mismatch between the demand and supply of trained workforce in the current labor market in Ethiopia. They also explained the possible challenges that the TVET system in the context of KPC is faced with during its operation and suggested alternative remedies which can ameliorate the problems.

**Table 3.5: List of Key Informant Interviews**

Target Group	Position	Number of participants
Top Management of KPC	Dean	1
	Vice Deans	2
EASTRIP Project Officials	EASTRIP Project Coordinator at KPC	1
	EASTRIP Project MEAL Expert	1
<b>Total</b>		<b>5</b>

### 3.3. DATA COLLECTION PROCEDURES

The consultancy firm managed to secure contact list of the graduates from the College's registrar. The data collectors made telephone interviews to all graduates in order to gather data from of the 186 graduates. The data collectors recorded the answers given by the respondent on the survey questionnaire. The data collectors have made a minimum of three to four telephone calls to those graduates whose phone numbers were inaccessible and switched off. They have also explained the purpose of the study, anonymity of submissions and importance of their participation to minimize refusals from the graduates. Some graduates also failed to give their responses via telephone after expressing their willingness. In such cases, the data collectors have approached the graduates multiple times through phone calls and text reminders that resulted in further successful submissions. To maximize the success of turnout of the survey participants, Walya has transferred a modest amount of incentive in the form of mobile cards to all graduates that submitted the form. It has been clearly indicated to the graduates from the outset that they were compensated for the mobile data utilized over the course of completing the survey. With the above-outlined concerted efforts, it was made possible that a total of 186 (90%) graduates participated as sources of data for the study.

### 3.4. DATA COLLECTION PROCESS AND DATA ANALYSIS

In the process of data collection a full-day trainings and/or orientation workshop were provided for all field supervisors and data enumerators on the overall data collection procedures and reliability of the draft tools that prepared to gather primary data. At the same time KIs guides and survey questionnaires were checked for errors and the validated. The proposed tools were reviewed and approved by the Client before data collection commences as part of this inception report.

Professional data collectors were recruited on the basis of their educational preparations and experiences related with data collection and field supervisions. The data collectors were experienced people who were capable of interacting with potential respondents in the targeted organizations/institutions.

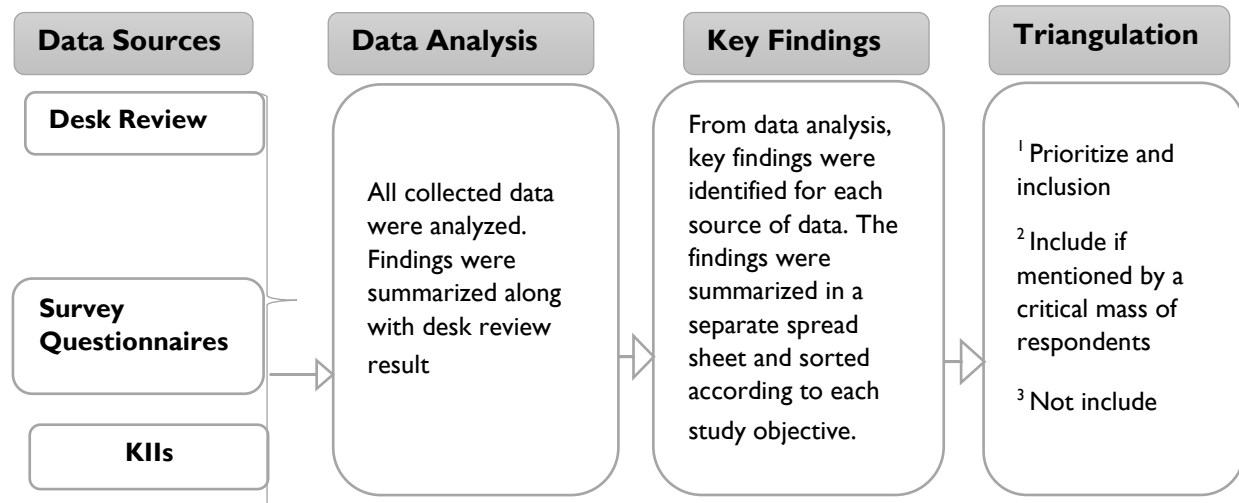
The process of analyzing all the information collected from various sources can be complex, especially when different organizations, with many interests, and performing many functions and responsibilities were participated. This is where the consultancy team's analytical expertise in relating and integrating various data and information are very important. The collected data were thus carefully processed, analyzed and interpreted in a way they provide a true picture of the study. The major activity in this regard were checked and rechecked for all data quality parameters. During data verification on hard copy of the completed questionnaires were checked and verified by field supervisor on the following matters:

- ☞ Completeness of each questionnaire,
- ☞ Consistency of each response from each questionnaire,
- ☞ Handwritings which may misled data entry clerks, and
- ☞ Coding responses for other option responses open ended questions, and multiple responses into numeric response.

The analysis for quantitative data was carried in Statistical Package for the Social Sciences (SPSS version 20) software. The analysis for the qualitative data was done using NVivo 12 software. Percentages and mean and ranking were used for analyzing quantitative data using content analysis, and thematic analysis. The analysis started by analyzing and categorizing of all qualitative data using the concepts, key variables and their indicators.

### 3.5. TRIANGULATION

The consultant used the triangulation process to combine the data collected through mixed-methods procedure and to ensure proper triangulations (USAID, 2013).



#### Triangulation logic

**Figure 3.2: Data triangulation process**

<sup>1</sup>Findings supported by two or more data sources

<sup>2</sup>Findings not supported by other data sources but substantial

<sup>3</sup>Findings not consistent with other data sources or no critical mass

### 3.6. QUALITY ASSURANCE

The following quality-control requirements were issued by Walya Management Consultancy and Training PLC to present credible information.

- To ensure quality of work, Walya deployed highly qualified professionals and researchers in the subject matter as part of the tracer study team.
- Data collection tools were checked for the language barriers and technical terms deficiency.
- All data collectors were briefed and instructed giving attention on how to manage the survey, and handling interview sessions. For this purpose, Walya trained data collectors and supervisors for 1 day.
- Detail technical issues related with data collection approach and procedures, data compilation and reporting arrangements, usage of formats were clarified to data enumerators and supervisors.
- Pre-test of the tools was conducted during the training before finalizing and printing the final tools. The data file was checked for consistency.
- The research team organized the data files and uses various data tests to ensure data for missing value, consistent and outliers.
- Walya followed internationally and nationally accepted research protocols to undertake the survey
- In addition to data validity and consistency, ensuring data completeness, utility, relevance, objectivity, reliability, completeness, integrity, and generalizability criteria were maintained to ensure data quality at each milestone of the tracer study
- Walya established strict monitoring and follow-up procedure to ensure data quality and proper engagement of data enumerators.

- ❑ Besides the above key activities, Walya believed quality assurance of the tracer study needs active involvement of the client using pre-established instruments. As a result of this, Walya requested close collaboration and involvement of project stakeholders, particularly the responsible body of the tracer study project.

### **3.7. ETHICAL CONSIDERATIONS**

Walya followed standard ethical approaches of research to ensure research integrity. Training and direction were given for data enumerators to respect the following ethical considerations:

- Seeking the consent of respondents to participate in the study (researchers ask respondents to sign on the consent form;
- To reserve from any harmful practices and abuses on the respondents;
- To maintain the secrecy of the information given by respondents including personal identity if needed;
- To respect decision of respondents if they want to withdraw from the survey/interview in the middle of the data collection;

## SECTION FOUR: RESULTS AND DISCUSSIONS

This section of the report presents results and discussion of the study based on the data collected using various tools from diverse group of participants of the Kombolcha Polytechnic College's graduate tracer study of the academic year 2021-2022. The results of the study are presented in this section.

### 4.1. DEMOGRAPHIC CHARACTERISTICS OF SURVEY PARTICIPANTS

A total of 256 individuals from the four respondent groups; viz., 5 senior leaders of the College, the 2021/22 graduates (186) of KPC, 36 trainers<sup>5</sup> and 29 employers of the KPC graduates have participated in this study as indicated in Table 4.1. Compared to the planned coverage (see Tables 3.2, 3.3, and 3.4 in Section 3 for the planned and achieved), 90% of graduates, 100% of trainers and 97% of employers partook in the study. About 70% of the graduates were drawn from three of six departments, namely Electrical Electronics Technology, Water Supply and Sanitation, and Construction Technology. The study showed that about 69% of graduates were Level-IV. The trainers (83%) and department heads (17%) who are the salient actors at the operating core of the College were part of the study. In accordance with the Ethiopian Standard Industrial Classification, most (65%) of the employers who participated in the study were drawn from the manufacturing; automotive industries, repair of motor vehicles and motorcycles; agriculture, forestry and fishing, and community, social and personal services sector as indicated in Item 3 of Table 4.1.

**Table 4.1: Demographic Characteristics of Participants**

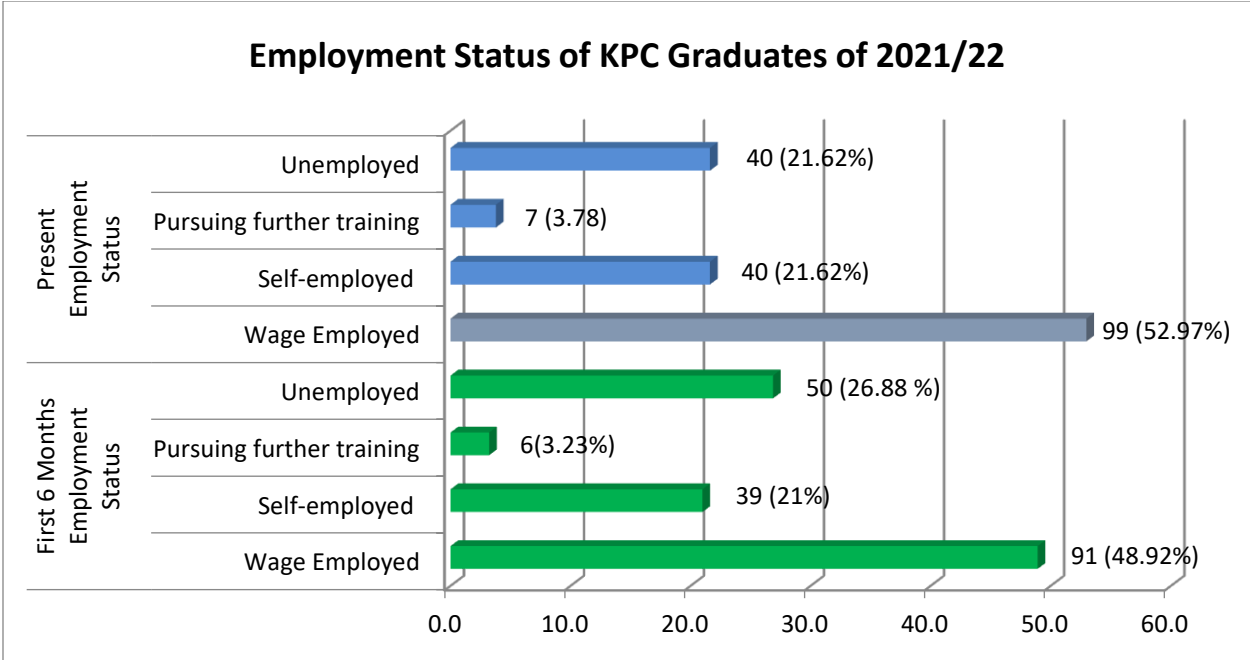
Target Group	Demographic Characteristics	Frequency	Percentage
Graduates	<b>Gender</b>		
	Male	128	68.8
	Female	58	31.2
	<b>Department</b>		
	Agriculture	29	15.6
	Automotive Technology	19	10.2
	Electrical Electronics Technology	49	26.4
	Metal Engineering	8	4.3
	Water Supply and Sanitation	48	25.8
	Construction Technology	33	17.7
	<b>Level</b>		
	Level III	32	17.2
	Level IV	128	68.8
	Level V	26	14
Trainers	<b>Position</b>		
	Department Head	6	16.7
	Trainers	30	83.3
Employers	<b>Sector of industry</b>		
	Agriculture, Hunting, Forestry and Fishing	5	17.2
	Manufacturing (such as Garment, Textile or related)	9	31.0

<sup>5</sup> Six are Department Heads

Target Group	Demographic Characteristics	Frequency	Percentage
	Electricity, Gas and Water Supply <sup>6</sup>	2	6.8
	Construction	4	13.8
	Automotive Industries, Repair of Motor Vehicles and Motorcycles	5	17.2
	Community, Social and Personal Services <sup>7</sup>	4	13.7

**4.2. EMPLOYMENT STATUS, DESTINATIONS AND JOB SATISFACTION**

Among the employed graduates of KPC, most 136 (73.11%) of the graduates reported that they got employed within six months after graduation as documented in Figure 4.1 below. In terms of their employment status in the first six months, 91(49%) have become wage-employed; 39(21%) reported as self-employed; and 6(3.23%) were pursuing further training. Further analysis of the data indicated that the percentage of employment of graduates increased only by almost 3% at the time of data collection for the study. On contrary, the graduates’ current unemployment status was reduced by more than 6% when compared to their unemployment history of the first six months after graduation. The status of current self-employment of graduates was reached 40 (21.62%) with a very slight increment when compared to their first six month employment data as indicated in Figure 4.1 below.

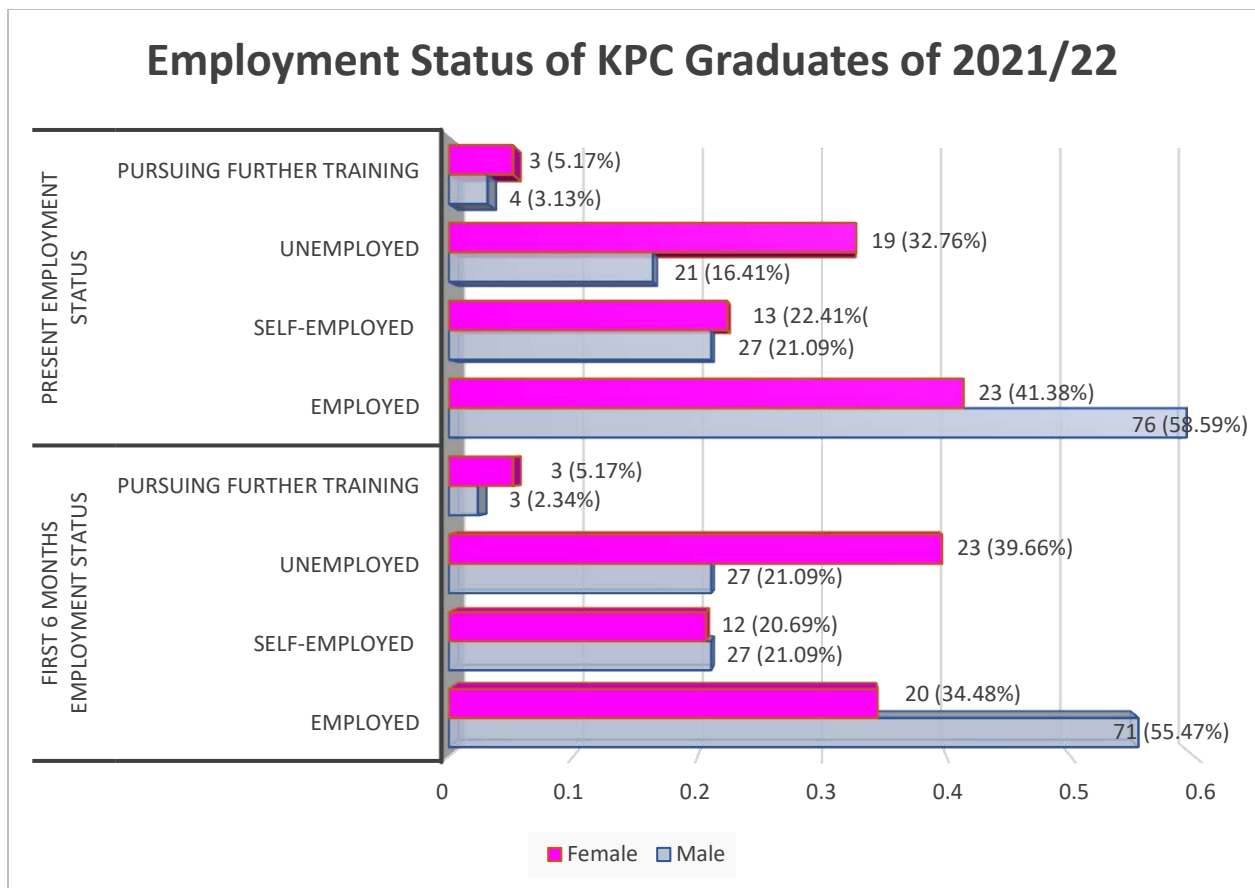


**Figure 4.1: Employment Status (Freq (%)) of KPC Graduates of 2021/22**

Fig. 4.2 below presents the employment status of KPC graduates disaggregated by sex. The results of data analysis revealed that 35(60.34%) of female and 101(76.6%) of male graduates were employed within six months after graduation. Between the first six months after graduation and at the time of data collection, the percentage of unemployed for female graduates were reduced from 39.7% to 32.8% as indicated in Fig. 4.2.

<sup>6</sup> Electricity, Gas, Steam, and Air Conditioning (3.4%), and Water Supply, Sewerage, Waste Management and Remedial Activities (3.4%)

<sup>7</sup> Administrative and support service activities (3.4%), Human health and Social Work Activities (3.4%) and Education (6.9%)



**Figure 4.2: Employment Status (Freq (%)) of KPC Graduates of 2021/22 by Sex**

Table 4.2 documents the employment status KPC graduates within six months after their graduation by their sexes and academic departments. The results of data analysis revealed that the majority 29(31.86%) of wage-employed graduates were from Agriculture followed by Electrical Electronics Technology 26(28.57%), and then came graduates from the Water Supply and Sanitation 19(20.87%) as indicated in Table 4.2. However, the Construction and Automotive Departments were lower than the rest departments in terms of the wage-employment as indicated in same table. The majority [15 (38.46%)] of graduates from the Construction Technology Department were self-employed. The tracer study documented that the majority 19(38%) of unemployed graduates were from the Water Supply and Sanitation Department followed by Electrical Electronics Technology Department 15(30%). While male graduates from the Agriculture Department made up the majority [26(36.62%)] of the total wage-employed KPC graduates, the female graduates from the Electrical Electronics Department accounted for the majority 11(55%) of the wage-employed female graduates from all departments (see Table 4.2). The graduates of Construction Technology Department were mainly self-employed as documented in Table 4.2 below.

**Table 4.2: Employment Status (Freq (%)) of KPC Graduates within Six Months after Graduation by Department by Sex**

Employment Status	Sex	Department					
		Agriculture	Automotive Technology	Electrical Electronics Technology	Metal Engineering	Water Supply and Sanitation	Construction Technology
<b>Wage Employed</b>	Male	26 (36.62)	8 (11.27)	15 (21.13)	1 (1.41)	15 (21.13)	6 (8.45)
	Female	3 (15.00)		11 (55.00)		4 (20.00)	2 (10.00)
	<b>Total</b>	<b>29 (31.86)</b>	<b>8 (8.79)</b>	<b>26 (28.57)</b>	<b>1 (1.09)</b>	<b>19 (20.87)</b>	<b>8 (8.79)</b>
<b>Self-Employed</b>	Male		6 (22.22)	6 (22.22)		4 (14.81)	11 (40.74)
	Female		2 (16.67)	2 (16.67)		4 (33.33)	4 (33.33)
	<b>Total</b>		<b>8 (20.50)</b>	<b>8 (20.50)</b>		<b>8 (20.50)</b>	<b>15 (38.46)</b>
<b>Pursuing Further Training</b>	Male					1 (33.33)	2 (66.66)
	Female				1 (33.33)	1 (33.33)	1 (33.33)
	<b>Total</b>				<b>1 (16.66)</b>	<b>2 (33.33)</b>	<b>3 (50.00)</b>
<b>Total Employed</b>	Male	26 (25.74)	14 (13.86)	21 (20.79)	1 (0.99)	20 (19.80)	19 (18.81)
	Female	3 (8.57)	2 (5.71)	13 (37.14)	1 (2.86)	9 (25.71)	7 (20.00)
	<b>Total</b>	<b>29 (21.32)</b>	<b>16 (11.76)</b>	<b>34 (25)</b>	<b>2 (1.47)</b>	<b>29 (21.32)</b>	<b>26 (19.11)</b>
<b>Unemployed</b>	Male		2 (7.41)	8 (29.63)	6 (22.22)	5 (18.52)	6 (22.22)
	Female		1 (4.35)	7 (30.43)		14 (60.87)	1 (4.35)
	<b>Total</b>		<b>3 (6.00)</b>	<b>15 (30.00)</b>	<b>6 (12.00)</b>	<b>19 (38.00)</b>	<b>7 (14.00)</b>

As it can be presented in Table 4.3, the major change (**nearly 5%**) in the employment status of KPC graduates were reported by graduates of the Metal Engineering Department during the data collection as compared to their employment status within six months after graduation. Similarly, the unemployment of graduates from all departments but the Automotive Technology Department decreased. In other words, graduate unemployment of Automotive Technology Department remained the same when compared with the unemployment status of within six month after graduation.

**Table 4.3: Current Employment Status (Freq (%)) of KPC graduates by Department by Sex**

Employment Status	Gender	Department					
		Agriculture	Automotive Technology	Electrical Electronics Technology	Metal Engineering	Water Supply and Sanitation	Construction Technology
<b>Wage Employed</b>	Male	26 (34.21)	8 (10.53)	15 (19.74)	6 (7.89)	14 (18.42)	7 (9.21)
	Female	3 (13.04)	1 (4.35)	11 (47.83)		6 (26.09)	2 (8.70)
	<b>Total</b>	<b>29 (29.29)</b>	<b>9 (9.09)</b>	<b>26 (26.26)</b>	<b>6 (6.06)</b>	<b>20 (20.20)</b>	<b>9 (9.09)</b>
<b>Self-</b>	Male		6 (22.22)	6 (22.22)		4 (14.81)	11 (40.74)

Employment Status	Gender	Department					
		Agriculture	Automotive Technology	Electrical Electronics Technology	Metal Engineering	Water Supply and Sanitation	Construction Technology
employed	Female		1 (7.69)	2 (15.38)		6 (46.15)	4 (30.77)
	<b>Total</b>		<b>7 (17.50)</b>	<b>8 (20.00)</b>		<b>10 (25.00)</b>	<b>15 (37.50)</b>
Pursuing Further Training	Male					1 (25.00)	3 (75.00)
	Female			1 (33.33)	1 (33.33)	1 (33.33)	
	<b>Total</b>			<b>1 (14.29)</b>	<b>1 (14.29)</b>	<b>2 (28.57)</b>	<b>3 (42.86)</b>
<b>Total Employed</b>	Male	26 (24.30)	14 (13.08)	21 (19.63)	6 (5.61)	19 (17.76)	21 (19.63)
	Female	3 (7.69)	2 (5.13)	14 (35.9)	1 (2.56)	13 (33.33)	6 (15.38)
	<b>Total</b>	<b>29 (19.86)</b>	<b>16 (10.96)</b>	<b>35 (23.97)</b>	<b>7 (4.79)</b>	<b>32 (21.92)</b>	<b>27(18.49)</b>
Unemployed	Male		2 (9.52)	7 (33.33)	1 (4.76)	6 (28.57)	5 (23.81)
	Female		1 (5.26)	7 (36.84)		10(52.63)	1 (5.26)
	<b>Total</b>		<b>3 (7.50)</b>	<b>14 (35.00)</b>	<b>1 (2.50)</b>	<b>16 (40.00)</b>	<b>6 (15.00)</b>

As presented in Table 4.4, the majority 70(71.4%) of the wage-employed graduates identified themselves as permanent employers (see Item 2 of Table 4.2). Most 63 (64.3%) of them were working between 33 to 48 hours per week, which is almost in line with the national working hours allotted for public organizations. Agriculture, forestry and fishing 33 (23.9%), manufacturing (such as garment, textile or related) 18 (13%), and construction sector 18 (13%) were among the top three employers of KPC graduates as indicated in Item 4 of Table 4.2. Nonetheless, the majority 19 (65.55%) of the employers revealed that they did not easily find employees with needed skills (see Item 5 of Table 4.4).

**Table 4.4: Wage-employed graduates related factors**

Employment Factors		Frequency	Percentage
Time to get Current Job	0-3 months	20	24.4
	4-6 months	27	32.9
	7- 9 months	10	12.2
	10-12 months	10	12.2
	12 +	15	18.3
Type of employment	Part-time	2	2.0
	Contractual	15	15.3
	Temporary	11	11.2
	Permanent	70	71.4
Working hours per week	Less than 16 hours	1	1.0
	16 - 30 hours	26	26.5
	33 - 48 hours	63	64.3
	More than 48 hrs	8	8.2
Working Sector	Agriculture, Forestry and Fishing	33	23.9
	Manufacturing (such as garment, textile or related)	18	13.0

Employment Factors		Frequency	Percentage
	Electricity, gas, steam, and air conditioning supply	4	2.9
	Water Supply, Sewerage, waste management and remedial activities	10	7.2
	Construction	18	13.0
	Automotive industries, repair of motor vehicles and motorcycles	6	4.3
	Transportation and storage	8	5.8
	Accommodation and food services activities	4	2.9
	Administrative and supportive service activities	1	0.7
	Public administrative and defense	2	1.4
	Human Health and Social work activities	2	1.4
	Education	6	4.3
	Others	26	18.8
Ease of finding employees with required skills (employers)	Yes	10	34.5
	No	19	65.5

The results of this tracer study revealed that the majority (62%) (see Fig. 4.3) of the KPC graduates of 2021/22 hired in their areas of specialization as documented in Table 4.5. In most sectors, graduates were reported as their duties and responsibilities are closely linked to their areas of training.

**Table 4.5: Cross Tab between the Department of Graduates and Current Employers by Sector**

Employers Sector	Graduates Department						
	Agriculture	Automotive Technology	Electrical Electronics Technology	Metal Manufacturing	Water Supply and Sanitation	Construction Technology	Total
Agriculture, forestry and fishing	29	2	2				33
Manufacturing (textile factory, garment factory, or related)		2	6	5	5		18
Electricity, gas, steam, and air conditioning			4				4
Water Supply: sewerage, waste management and remedial activities			4		6		10
Construction industries		1	1		1	16	18
Automotive industries: repair of motor vehicles and motorcycles		5		1			6
Transportation and storage such as: road, rail, water and air)		2	4		1	1	8

Employers Sector	Graduates Department						
	Agriculture	Automotive Technology	Electrical Electronics Technology	Metal Manufacturing	Water Supply and Sanitation	Construction Technology	Total
Accommodation and food services activities		1	3				4
Administrative and supportive service activities						1	1
Public administration and defence					2		2
Human Health and Social work activities		1	1				2
Education			3		2	1	6
Others		2	6		13	5	26
<b>Total</b>	<b>29</b>	<b>16</b>	<b>34</b>	<b>6</b>	<b>30</b>	<b>24</b>	<b>139</b>

This study attempted to document job search platforms/sites that the graduates of KPC used to find a job as indicated in Table 4.6. Most 64 (65.3%) of the graduates searched for their current jobs through advertisement of vacancies in newspapers /television/radio (such as, daily papers, special periodicals) followed by personal contacts 46 (46.9%). Direct applications and public work administrations (i.e., public placement services, manpower allocation system, etc.) were also used for job search alternatives by the graduates of KPC as reported by 24 (24.5%) and 26 (26.5%) of the participants, respectively). On the other hand, the study clearly indicated that advertisement on the internet, industry linkages during their trainings and career guidance and counseling at KPC rarely used as job search platforms/sites by the graduates of KPC as shown in Table 4.6. This suggests that the graduates of KPC appeared to have hardly used their cooperative training to find a job. Moreover, national labour market information system (exists in whatever form) hardly influenced finding a job.

**Table 4 6: Advertisement Media Used by Graduates**

Job Search Platforms/Sites	Yes		No	
	Freq	%	Freq	%
Advertisement of vacancies in newspaper/television/radio (such as, daily papers, special periodicals)	64	65.3	34	34.7
Advertisement on the internet	1	1.0	97	99.0
Internal advertisement	9	9.2	89	90.8
Direct applications	24	24.5	74	75.5
Career guidance and counseling at KPC	1	1.0	97	99.0
Referral /endorsement by KPC	5	5.1	93	94.9
Personal Contact	46	46.9	52	53.1
Public work administration (such as public placement services, manpower allocation system)	26	26.5	72	73.5
Industry linkages during training	2	2.0	96	98.0

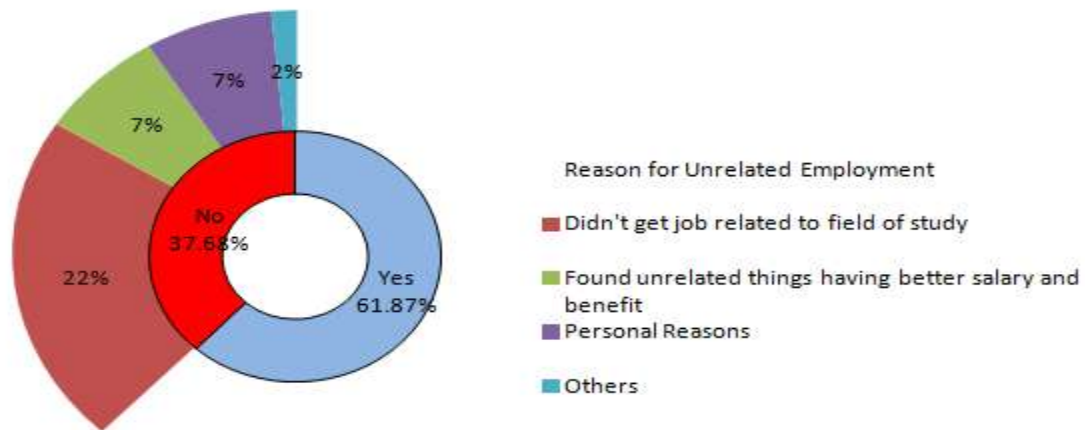
The tracer study tried to identify attributes/qualities employers look for in graduates during the recruitment as indicated in Table 4.7 below. The findings showed that field of specialization 20 (69%), academic results 19 (65.5%), result of recruitment examination 20 (69%); personal presentation 18 (62%), and ability to work in multicultural environment 18 (62%) were considered by employers to recruit graduates of KPC. But the remaining qualities such as performance at the cooperative trainings, reputation of the college, English language proficiency and candidate world views were less important during recruitment of graduates as reported by the majority of employers.

**Table 4.7: Attributes of Employers Needs to Recruit Graduates of KPC**

Attributes to recruit Graduates	Important		Less Important	
	Freq	%	Freq	%
Field of specialization	20	68.97	9	31.03
Academic results at the college	19	65.52	10	34.48
Practical demonstration during cooperative trainings	10	34.8	19	65.2
Reputation of the college	9	31.4	20	68.6
Recommendations/references	10	34.8	19	65.2
Results of recruitment examination	20	68.97	9	31.03
Skills of foreign languages (English)	4	13.79	25	86.21
Personal presentation/interviews	18	62.07	11	37.93
Candidates view towards world	9	31.4	20	68.6
Ability to work in multicultural environment	18	62.1	11	37.9

Aligning training with expectation of employers at work place ensures that employees receive the necessary skills and knowledge from the training providers to contribute to the organization's success. Fig 4.3 documented that 62% of the employed graduates of KPC confirmed the existence of strong relationship between their trainings at KPC and current jobs. Those who 38% reported the absence of relationship between their trainings and current jobs were asked to indicate their reasons for the mismatch of training provisions and job expectations. The reasons included (see Figure 4.3 below): unable to get job fields of study (22%) and found job with better salary and benefit in unrelated fields (7%).

### Relationship Between Study and Employment



**Figure 4.3: Relationship between KPC Study and Employment**

The graduates of KCP from the 2021/22 academic year were asked to rate their level of satisfaction with respect to various factors associated with their current job. As a result, the overall mean score for the level of satisfaction of KPC graduates towards their current job was 3.3, indicating moderate satisfaction among the graduates when measured against 10 indicators presented in Table 4.8. Some of the causes for not satisfying in their jobs included: inadequate career advancement prospects (2.68), work environment (2.75), and income and benefits (2.91).

**Table 4.8: Job Satisfaction of Employed Graduates**

Indicators of Job Satisfaction	Not Satisfied at All	Not Satisfied	Moderate	Satisfied	Very Satisfied	Mean Score	Overall Mean Score
Interesting work tasks	2	9	36	44	4	3.41	<b>3.3</b>
Being able to work with some independence	1	11	23	52	8	3.58	
Clear and regulated work tasks	1	10	27	44	12	3.60	
Possibilities for applying what you learned when studying	1	9	20	58	7	3.64	
Job Security	2	15	31	40	7	3.37	
Social Status and recognition	1	7	29	51	7	3.59	
Income and benefits	4	29	38	20	4	2.91	
Work environment	2	49	19	21	4	2.75	
Good career advancement prospects	13	35	20	21	5	2.68	
Being able to coordinate/supervise work	2	10	28	52	3	3.46	

### 4.3. ACADEMIC MANAGEMENT AT KPC

Both trainers and graduates of KPC were asked to rate their level of satisfaction with the overall academic management at KPC as shown in Table 4.9. The results of the data analysis revealed that the

trainers and graduates were satisfied with academic management capacity at KPC with **overall mean score of 3.30** and **3.22**, respectively. Accordingly, both the trainers and the graduates were satisfied towards the senior leadership’s academic management capacity at KPC with mean score of 3.5 and 3.44, respectively. Similarly, the trainers and the graduates were satisfied with the academic management capacity at department level and external collaboration (such as external assessors, guest lecturers, industry experts, exchange programs) as indicated in Table 4.9. Nonetheless, the graduates and the trainers were not satisfied with capacity of administrative staff to provide services at KPC; and KPC support for students on careers advice and guidance such as help in finding jobs.

**Table 4.9: Satisfaction with Academic Management at KPC**

Target Group	Administrative Factors	Not Satisfied at All	Not Satisfied	Moderate	Satisfied	Very Satisfied	Mean Score	Overall Mean Score
<b>Trainers</b>	Senior Leadership academic management capacity at KPC	3	3	9	15	6	3.50	<b>3.30</b>
	Academic management capacity at Department Level	4	5	6	10	11	3.53	
	Capacity of administrative staff to provide services at KPC	8	9	8	8	3	2.69	
	KPC support for students on Careers advice and guidance such as help in finding jobs	7	7	11	10	1	2.75	
	External collaboration such as external assessors, guest lecturers, industry experts, exchange programs	3	3	10	14	6	3.47	
<b>Graduates</b>	Senior Leadership Capacity at KPC	3	34	45	86	18	3.44	<b>3.22</b>
	Academic Management Capacity at Department Level	9	37	20	79	41	3.57	
	Capacity of Administrative staff	18	81	55	29	3	2.56	
	KPC support for students on Careers advice and guidance such as help in finding jobs	21	61	62	18	24	2.80	
	External collaboration such as external assessors, guest lecturers, industry experts, exchange programs	13	13	35	72	53	3.75	

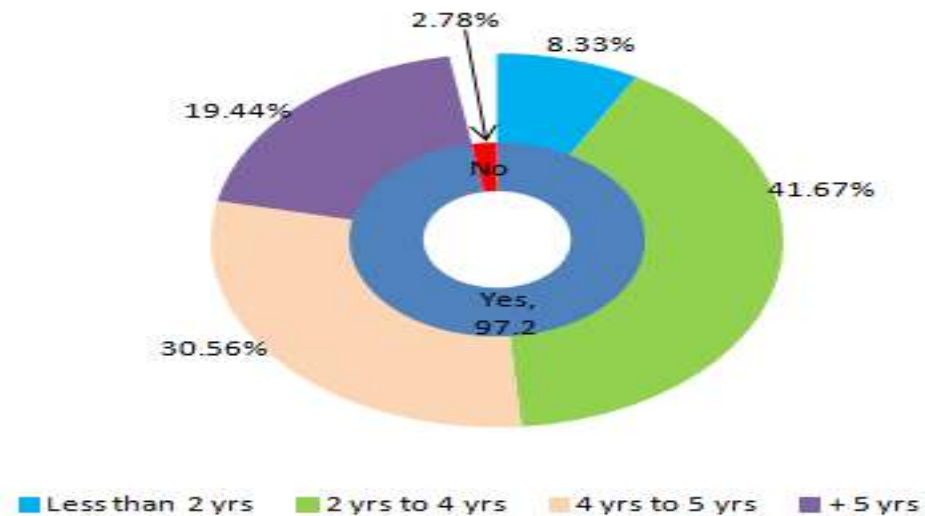
#### 4.4. QUALITY AND RELEVANCE OF TVET PROGRAMS AT KPC

##### 4.4.1. Program Review at KPC

The results of program review experiences of KPC were documented in Figure 4.4. The findings revealed that 97.2% of the trainers of KPC reported that they have program review experiences at KPC.

While 41.67% of the trainers reported that program reviews were undertaken in 2 to 4 years period, only 8.33% stated as it conducted in the period less than 2 years.

**Trainers Assessment on Curriculum Review Experience at KPC**



**Figure 4.4: Curriculum Review Experience at KPC**

Most 31 (86.1%) of the KPC trainers used occupation standards (OS) in reviewing curriculum while only 3 (8.3%) of the trainers consulted employers during curriculum reviews as shown in Item 1 of Table 4.10. With regard to the ratio of practical competencies and theoretical knowledge, 23(62%) of the trainers confirmed that they maintained a 70:30 ratio as per the national TVET strategy. During the interviews with the dean and vice deans, it was possible to learn that the industrial town of Komblocha created a huge opportunities to implement a 70:30 ratio of practical competencies and theoretical knowledge.

**Table 4.10: Inputs for Curriculum Review at KPC**

Variables		Frequency	Percentage
Inputs for curriculum Review	Direct Checking with Employers	3	8.3
	Using OS	31	86.1
	Other	2	5.6
Ratio of Practical Competencies and Theoretical Knowledge	20:80	3	8.1
	30:70	1	2.7
	40:60	2	5.14
	50:50	5	13.35
	60:40	3	8.1
	70:30	22	61.57

#### 4.4.2. Resources and Facilities at KPC

The 2021/22 KPC graduates and their trainers were (moderately) satisfied with the availability and adequacy of key facilities and resources for their trainings at the College as presented in Table 4.11. The trainers and graduates were (moderately) satisfied with overall resources facilities at KPC with mean scores of 3.22 and 3.03, respectively. Specifically, both the trainers and graduates were satisfied with

reference materials; relevant course curriculum; availability of workshop and lab equipment and tools including simulators; and availability of industrial linkages such as internship program and student industries visit access as presented in Table 4.11. In contrast, the trainers and graduates were not satisfied with (i) availability and functionality of IT facilities with mean scores of 2.92 and 2.26, respectively; (ii) availability of recreational facilities with mean scores of 2.19 and 2.47, respectively; and availability of Audio-visual Aids with mean score of 2.11.

**Table 4.11: Percentage Response on Resources and Facilities at KPC**

	<b>Resources and Facilities Indicators</b>	<b>Not Satisfied at All</b>	<b>Not Satisfied</b>	<b>Moderate</b>	<b>Satisfied</b>	<b>Very Satisfied</b>	<b>Mean Score</b>	<b>Overall Mean Score</b>
<b>Trainers</b>	Reference materials	2	1	2	23	8	3.94	<b>3.22</b>
	Relevant course curriculum		1	6	21	8	4.00	
	Availability of workshop and lab equipment and tools including simulators	3	2	5	21	5	3.64	
	Availability of industrial linkages such as internship program and student industries visit access	3	4	3	16	10	3.72	
	Availability and functionality of IT Facilities	6	9	6	12	3	2.92	
	Availability of Audio-visual Aids	14	11	5	5	1	2.11	
	Availability of Recreational facilities	16	3	12	4	1	2.19	
<b>Graduates</b>	Resources and references	2	35	57	77	15	3.37	<b>3.03</b>
	Relevant course curriculum	1	25	27	84	49	3.83	
	Availability of workshop and lab equipment and tools including simulators	4	16	60	85	21	3.55	
	Availability of industrial linkages such as internship program and student industries visit access	11	7	53	87	28	3.61	
	Availability and functionality of IT Facilities	52	57	59	12	6	2.26	
	Availability of Audio-visual Aids	65	63	36	16	6	2.11	
	Availability of recreational facilities	35	66	53	26	6	2.47	

Asked about facilities and resources in the training programs, the participants of a series of key informant interviews shared graduates and trainers' observations with mixed assessments of resources and facilities at the College. For instance, in the case of availability and functionality of IT facilities, they argued that the IT is more or less functional and well-equipped. Nonetheless, they said that the college has poor recreational facilities that partly undermine the quality of the working environment. In general, however, there is always gap with equipment that goes with modern technology.

### 4.4.3. Engagement of Employers in Cooperative Training and Industrial Exchange Program

Cooperative training is a critical aspect of TVET programs. The expectation is that such training will enable the trainees to acquire essential practical competencies of the occupations of their specialization. As it can be indicated in Table 4.12, most (61.75%) of employers reported as they engaged in the cooperative learning program with KPC and also 75% of them stated that trainees of KPC have been undergoing cooperative training at their industries. However, 95.2% of the employers indicated as they have faced challenges with KPC trainees enrolled in cooperative learning at their industry due to high level of wastage and poor time management. Surprisingly, 74% of graduate employers did not have industrial exchange with KPC Staff, which can hinder continuous alignment of the training programs with industrial demands.

**Table 4.12: Employer Engagement in Cooperative Training and Industrial Exchange Program with KPC**

	Yes	No
Have you engaged in cooperative learning program with KPC	61.7	38.3
Are trainees undergoing cooperative learning at your company?	75.0	25.0
Have you any challenges with KPC trainees enrolled in cooperative learning at your industries	4.8	95.2
Do you have industrial exchange with KPC Staff	25.9	74.1

The senior leaders and managers who participated in a series of the key informant interviews, expressed concerns on companies involved in the cooperative training program with the College. One participant said that *a number of industries accepted the KPC trainers for cooperative training but they don't allow them touch the machines. Almost all key informant interviewees said that industries are not still fully aware of the goals of cooperative training.* From this, one can conclude that the cooperative program is not conducted with the expected level of quality of services to the effectiveness of the training program at KPC. Legal/policy or financial incentives are required to engage companies in the cooperative training programs.

This study showed that nearly 19 (53%) of trainers at KPC have participated in the industrial exchange program as indicated in Table 4.13. Moreover, of all trainers who reported their participation in the industrial exchange program, the majority 14 (63.2%) of them have not participated in any of industrial exchange program for more than a year. Inadequate industrial exchange programs mean that enabling the problems of skill gaps or mismatch and finally to decrease employability of TVET graduates. In other words, collaboration between TVET trainers and industries is critical for skills development, generation, innovation, technology transfer, work ethics and culture, among others.

**Table 4.13: Trainers engagement of industrial exchange program**

		Frequency	Percentage
Have participated in industrial exchange program	Yes	19	52.7
	No	17	47.2
Last time since you have participated in industrial	less 6 months	4	21.1

		Frequency	Percentage
exchange	7 to 12 months	3	15.8
	13 to 18 months	3	15.8
	19 to 24 months	2	10.5
	Above 2 years	7	36.8

#### 4.4.4. Effectiveness (outcomes) of Training Programs at KPC

The 2021/22 graduates of KPC who participated in this tracer study were asked to express their level of satisfaction on the pedagogy of the training program at KPC using 10 indicators organized in Table 4.14. Accordingly, the graduates at KPC were satisfied with overall outcomes of the training programs at KPC with **mean score of 3.26**. Moreover, the graduates were satisfied with all indicators of the training outputs and outcomes except IT skills with mean score of 2.81 with which the majority of the graduates were not satisfied.

**Table 4.14: Graduates Level of satisfaction with training outcomes**

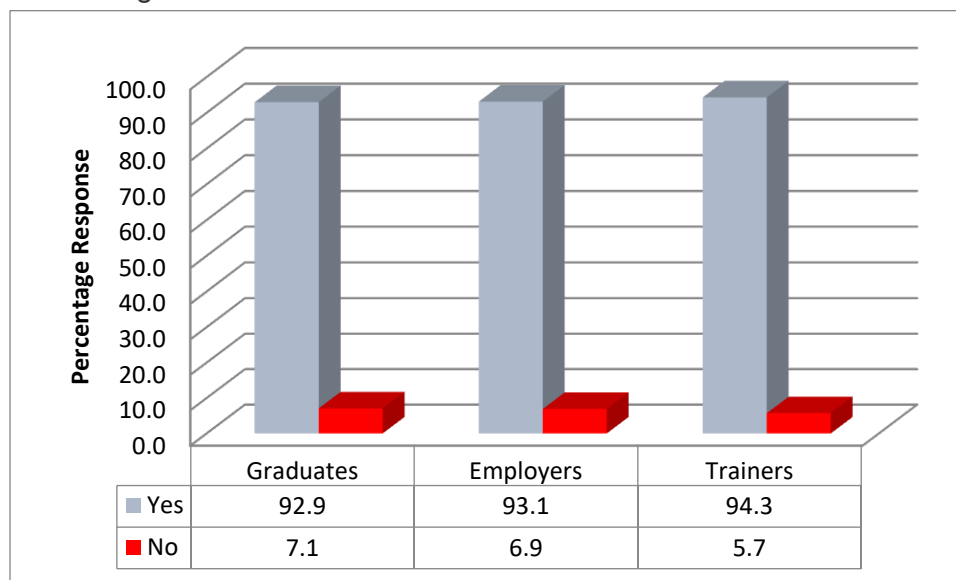
Variables	Not Satisfied at All	Not Satisfied	Moderate Satisfied	Very Satisfied	Mean Score	Overall Mean Score	
Delivery of Theoretical knowledge	20	23	28	89	26	3.42	
Delivery of practical and job specific skills	20	25	40	64	37	3.39	
Communication skills	21	25	40	68	31	3.34	
IT skills (computers)	44	41	34	40	27	2.81	
Problem-solving skills	20	26	51	62	27	3.27	
Shaping trainee on work ethics including industry culture	20	22	25	84	35	3.49	<b>3.26</b>
Providing and building entrepreneurship minded trainees	21	25	50	62	28	3.27	
Ability trainees on customer service skills	21	32	47	56	31	3.24	
Enabling trainees on health and safety skills required at work place	25	31	29	69	32	3.28	

The trainers who participated in this tracer study were asked to indicate their level of satisfaction on academic outcomes of KPC as Table 4.15. Accordingly, the majority of them were satisfied with the outcomes of training programs with overall mean score of **3.37**.

**Table 4.15: Trainers level of satisfaction with training outcomes**

Knowledge and Skills Characteristics	Not Satisfied at All	Not Satisfied Moderate	Satisfied	Very Satisfied	Mean Score	Overall Mean Score
Delivery of theoretical knowledge	0	10	18	84	20	3.42
Delivery of practical and job specific skills such use of	1	12	30	64	15	3.42
Communication skills	0	8	36	72	10	3.42
IT skills (computers)	3	12	42	44	10	3.42
Problem-solving skills	0	14	33	68	5	3.42
Shaping trainee on work ethics including industry culture	1	6	18	92	15	3.42
Providing and building entrepreneurship minded trainees	1	18	30	56	10	3.42
Ability trainees on customer service skills	1	18	33	56	5	3.42
Enabling trainees on health and safety skills required at work place	2	10	36	60	10	3.42
Improving overall trainees performance in various aspects	2	8	30	68	15	3.42
						<b>3.37</b>

The participants of the survey were asked to point out whether they recommend KPC to prospective trainees or not. As depicted in Figure 4.5, more than (92.9%) of study participants reported that they will recommend KPC's training programs for anyone who is considering attending a specific TVET college.



**Figure 4.5: Recommendation of KPC to Prospective Trainees**

## **SECTION FIVE: MAIN FINDINGS, CONCLUSION AND RECOMMENDATIONS**

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The purpose of this study was to conduct a tracer study of the 2021-22 graduates of Kombolcha Polytechnic College (KPC). The study aims to measure the relevance of KPC training programs and the number of graduated trainees who have been employed or unemployed in their fields of training and self-employed, as well as to assess their skills gap for further training and curriculum review and new curriculum design. Graduates of the College in 2021/22, trainers, employers and senior leaders of the College participated as sources of information for the study.

The tracer study employed a mixed and concurrent quantitative and qualitative research design. Both quantitative and qualitative data were collected from 5 senior leaders of the College, 186 graduates of the 2021/22 of KPC, 36 trainers and 29 of employers of the KPC graduates using three survey questionnaires, the Key Informant Interview guides, and document reviews. While the analysis of quantitative data was made by applying descriptive (cross-tab) analysis, such as frequency counts, percentage and mean, the qualitative data analysis was analyzed through content and thematic analysis. Tables, bar-charts, and pie-charts were used to present the data collected from primary and secondary sources. The following key findings were obtained:

### **5.1. MAIN FINDINGS**

- (a)** A total of 256 individuals from the four respondent groups; viz., 5 senior leaders of the College, the 2021/22 graduates 186 (90%) of KPC, 36 (100%) trainers and 29 (97%) of employers of the KPC graduates have participated in this study. About 70% of the graduates were drawn from three of six departments; viz., Electrical Electronics Technology, Water Supply and Sanitation, and Construction Technology. The study showed that about 69% of graduates were Level-IV. Most (65%) of the employers who participated in the study were drawn from the manufacturing; automotive industries, repair of motor vehicles and motorcycles; agriculture, forestry and fishing, and community, social and personal services sector according to the Ethiopian Standard Industrial Classification.
- (b)** Among the employed graduates of KPC, most 136 (73.11%) of the graduates reported that they were employed within six months after graduation. In terms of their employment status in the first six months, 91 (49%) have become wage-employed; 39 (21%) reported as self-employed; and 6 (3.23%) were pursuing further training. The study found that 35 (60.34%) of female and 101 (76.6%) of male graduates were employed within six months after graduation. Between the first six months after graduation and at the time of data collection, the percentage of unemployed for female graduates was reduced from 39.7% to 32.8%.
- (c)** The results of data analysis revealed that the majority of 29 (31.86%) wage-employed graduates were from Agriculture Department followed by Electrical Electronics Technology 26 (28.57%), and then graduates from the Water Supply and Sanitation 19 (20.87%) Department. However, the Construction and Automotive Departments were lower than the rest departments in terms of the wage-employment. The majority [15 (38.46%)] of graduates from the Construction Technology Department were self-employed. The majority 19 (38%) of unemployed graduates were from the Water Supply and Sanitation Department followed by Electrical Electronics Technology Department 15 (30%).

- (d) While male graduates from the Agriculture Department made up the majority [26(36.62%)] of the total wage-employed KPC graduates, the female graduates from the Electrical Electronics Department accounted for the majority 11(55%) of the wage-employed female graduates from all departments. The graduates of Construction Technology Department were mainly self-employed as documented.
- (e) The majority [70(71.4%)] of the wage-employed graduates identified themselves as permanent employers. Most 63 (64.3%) of the wage-employed graduates were working between 33 to 48 hours per week, which is almost in line with the national working hours allotted for public organizations. Agriculture, forestry and fishing 33 (23.9%), manufacturing (such as garment, textile or related) 18(13%), and construction sector 18(13%) were among the top three employers of KPC graduates. Nonetheless, the majority 19(65.55%) of the employers revealed that they did not easily find employees with needed skills. The results of this tracer study revealed that the majority (62%) of the KPC graduates of 2021/22 hired in their areas of specialization.
- (f) Most 64 (65.3%) of the graduates searched for their current jobs through advertisement of vacancies in newspapers /television/radio (such as, daily papers, special periodicals) followed by personal contacts 46 (46.9%). On the other hand, the study clearly indicated that advertisement on the internet, industry linkages during their trainings and career guidance and counseling at KPC rarely used as job search platforms/sites by the graduates of KPC.
- (g) With regard to the attributes/qualities employers look for in graduates during the recruitment, field of specialization 20(69%), academic results 19(65.5%), result of recruitment examination 20(69%); personal presentation 18(62%), and ability to work in multicultural environment 18(62%) were considered by employers to recruit graduates of KPC.
- (h) In terms of the alignment of training with expectation of employers at work place, 62% of the employed graduates of KPC confirmed the existence of strong relationship between their trainings at KPC and current jobs. Those who 38% said the absence of relationship between their trainings and current jobs indicated the following reasons: unable to get job fields of study (22%) and found job with better salary and benefit in unrelated fields (7%).
- (i) The graduates of KPC from the 2021/22 academic year were asked to rate their level of satisfaction with respect to various factors associated with their current job. As a result, the overall mean score for the level of satisfaction of KPC graduates towards their current job was 3.3, indicating moderate satisfaction among the graduates when measured against 10 indicators. Some of the causes for not satisfying in their jobs included: inadequate career advancement prospects (2.68), work environment (2.75), and income and benefits (2.91).
- (j) With regard to their level of satisfaction with the overall academic management at KPC, the trainers and graduates were satisfied with academic management capacity at KPC with **overall mean score of 3.30** and **3.22**, respectively. Accordingly, both the trainers and the graduates were satisfied towards the senior leadership's academic management capacity at KPC with mean score of 3.5 and 3.44, respectively. Similarly, the trainers and the graduates were satisfied with the academic management capacity at department level and external collaboration (such as external assessors, guest lecturers, industry experts, exchange programs). Nonetheless, the

graduates and the trainers were not satisfied with capacity of administrative staff to provide services at KPC; and KPC support for students on careers advice and guidance such as help in finding jobs.

- (k) The findings revealed that 97.2% of the trainers of KPC reported that they have program review experiences at KPC. While 41.67% of the trainers reported that program reviews were undertaken in 2 to 4 years period, only 8.33% stated as it conducted in the period less than 2 years. Most 31 (86.1%) of the KPC trainers used occupation standards (OS) in reviewing curriculum while only 3 (8.3%) of the trainers consulted employers during curriculum reviews. With regard to the ratio of practical competencies and theoretical knowledge, 23(62%) of the trainers confirmed that they maintained a 70:30 ratio as per the national TVET strategy. During the interviews with the dean and vice deans, it was possible to learn that the industrial town of Komblocha created a huge opportunities to implement a 70:30 ratio of practical competencies and theoretical knowledge.
- (l) Asked about their level of satisfaction with the availability and adequacy of key facilities and resources for their trainings at the College, the trainers and graduates were (moderately) satisfied with overall resources facilities at KPC with mean scores of 3.22 and 3.03, respectively. However, they (the trainers and graduates) were not satisfied with (i) availability and functionality of IT facilities with mean scores of 2.92 and 2.26, respectively; (ii) availability of recreational facilities with mean scores of 2.19 and 2.47, respectively; and availability of Audio-visual Aids with mean score of 2.11. Data collected through the series of interviews showed that the college has poor recreational facilities that partly undermine the quality of the working environment. In general, however, there is always gap with equipment that goes with modern technology.
- (m) Most (61.75%) of employers reported as they engaged in the cooperative learning program with KPC and also 75% of them stated that trainees of KPC have been undergoing cooperative training at their industries. As per one participant in the interview, *a number of industries accepted the KPC trainers for cooperative training but industries are not still fully aware of the goals of cooperative training in properly training trainees*. However, 95.2% of the employers indicated as they have faced challenges with KPC trainees enrolled in cooperative learning at their industry due to high level of wastage and poor time management. Surprisingly, 74% of graduate employers did not have industrial exchange with KPC Staff, which can hinder continuous alignment of the training programs with industrial demands.
- (n) This study showed that nearly 19 (53%) of trainers at KPC have participated in the industrial exchange program. Moreover, of all trainers who reported their participation in the industrial exchange program, the majority 14 (63.2%) of them have not participated in any of industrial exchange program for more than a year.
- (o) This study found that the graduates at KPC were satisfied with overall outcomes of the training programs at KPC with **mean score of 3.26**. Moreover, the graduates were satisfied with all indicators of the training outputs and outcomes except IT skills with mean score of 2.81 with which the majority of the graduates were not satisfied. The majority of trainers were also satisfied with the outcomes of training programs with overall mean score of **3.37**. More than

(92.9%) of study participants reported that they will recommend KPC's training programs for anyone who is considering attending a specific TVET college.

## 5.2. CONCLUSIONS

On the basis of the results of the study, it is safe to conclude that KPC is imparting quality and relevance TVET that culminate into the employment of the majority of its graduates. The majority of KPC graduates were employed within six months after graduation time. The KPC graduates were employed based on their field of study and satisfied with their current job. The result of the study also shows that trainers' quality in program delivery was up to the training requirements and the quality of training delivered by the College was satisfactory. The graduates of KPC and their employers were satisfied with the overall performances graduates. Nonetheless, there are still some shortcoming in terms of implementing cooperative training and industrial exchange program.

## 5.3. RECOMMENDATIONS

The following recommendations are forwarded for improving the effectiveness and efficiency of the College to meet the need of the job market:

- I. **Employment status:** There should be updated labour market data to match the supply and demand of skilled workforce. In this regard, strong collaborations with the industry sector are recommended. Given that the majority of graduates from the Water Supply and Sanitation Department and Electrical Electronics Technology Department are still looking for jobs, there is a need to consult with potential employers and sectorial offices of the said departments to align the training program with their specific needs.
- II. **Labour Market Information:** There should be updated labour market information that facilitates job search efforts of graduates. The Ministry of Labour and Skills or its affiliated organs at lower levels or any government bodies in charge of labour market information system at the Amhara Regional should provide updated information for graduates before graduation.
- III. **Professionalization of administrative support staff:** The senior leaders of KPC are advised to build the overall capacities of their administrative support staff for establishing an effective and efficient stakeholder management system. KPC should provide support for trainees on careers advice and guidance such as help in finding jobs. This capacity building endeavor will be based on a needs assessment, which is translated into a capacity building plan to be implemented.
- IV. **Occupational standards:** The Ministry of Labour and Skills should genuinely involve industry, sectorial ministries and private sector during the preparation and updating the occupational standards. Efforts need to be exerted to work on the occupational standards so as to address the mismatch between labour supply and demand.
- V. **Reviewing and upgrading curriculum:** There needs to be in-house capacity for reviewing and upgrading curriculum more urgently at the Water Supply and Sanitation Department and Electrical Electronics Technology Department. In all departments, particular attentions need to be given on soft skills on communication, critical thinking, information technology, human relations, problem-solving, etc.
- VI. **Training methodology:** It is suggested for trainers that they need to improve their engagement with industry through industrial attachment programs, continuously update their practical skills, instructional materials, and upgrade the art of training and their knowledge of the subject matter. A series of capacity development programs like industrial attachment programs on the basis of departmental based capacity gaps and needs should be developed. There needs to be strong instructional management at the College.

- VII. Cooperative training:** A strong college-industry internship program is highly recommended to implement effective and efficient cooperative training. Demand-driven industry specific short-term and long-term training services could strengthen the partnership.
- VIII. Facility and Resources:** There need to be adequate training inputs in the form of enough books and softcopy reference materials and modern teaching and learning technology (e.g., video-supported training), adequate and better quality (modern) workshops with state of the arts training inputs. It is recommended to the college create a recreational facilities for both the college community and guests.

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# Annexes

## Annex: Data Collection Tools

### Annex I.I: Survey Questionnaire for Graduates of KPC

#### 1.1. Graduate Tracer Studies Survey Introductory Letter

Dear Graduate,

As head of the research group, I kindly request your participation in a survey of Kombolcha Polytechnic College (KPC) graduates who completed their studies in **2021-2022**. We would like to find out what happened to you after you completed your studies at KPC. Did you find a job or are you still looking for a job, did your studies prepare you well for the workplace, and do you use the knowledge and skills you have learned during your studies? These are the major questions that you will be asked during the study.

The core objective of the survey is to improve the training in different departments and, more specifically, to guide the revision of the curricula. Your information will be treated in strict confidence. The results will be published in such a way that identification of individual respondents is excluded. Results of this survey will be published on the website of the KPC. Kindly complete the questionnaire and return it to our data collectors.

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years. We have developed a highly standardized questionnaire, which mainly asks you to mark (✓)brackets which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (e.g. Please go to Q).

The content of the questionnaire includes the following sections:

- Section 1 - Demographic Information
- Section 2 - Physical and Administrative Factors
- Section 3 - Employment Status
  - Section 3.A - Employed Graduates
  - Section 3.B - Self-Employed Graduates
  - Section 3.C - Pursuing Further Training/Education
  - Section 3.D - Neither Employed nor Self-Employed Graduates
- Section 4 - Comments and Recommendations

If you have any questions or require further clarifications, please send them to the email address mentioned below.

Phone: 0940554040 or 0921636755

E-mail: walya.management@gmail.com

Thank you very much in advance for your kind support.

Yours sincerely,

Wondu Tesfaye

Project Manager of the Tracer Study

## 1.2. The Survey Questionnaire

### Section I – Demographic Information

I. Name: ----- I.1 Gender: ( )

Male ( ) Female I.2 Marital Status: ( ) Single

( ) Married I.3 Age (years): ( ) Below 25 ( ) 25– 35 ( ) Above 35

I.4 Country of Residence: ----- Wereda/Kebele: -----

I.5. Do you have disability? (Circle your choice) A. Yes B. No

I.6. If your answer to I.5 is yes, what is your disability? (Circle your choice)

A. Sight problem B. Hearing difficulty C. Mobility difficulty D. Other

I.7 Mobile Phone Number (*Optional, for future consultations*) -----

2. Your department (Occupation) during the training at KPC(*Write the department*)

A. ( ) Crop production and marketing management

B. ( ) Advanced Apparel Production

C. ( ) Automotive Engine Servicing

D. ( ) Automotive Servicing Operation Management

F. ( ) Intermediate Apparel Production

G ( ) ICS

H ( ) IMEDS

I ( ) Metal Engineering Production Management

K ( ) Textile Technology and Production

L ( ) Apparel Fashion Designing And Technology Supervision

M ( ) Automotive Technology Management

N ( ) Building Electrical Installation

O ( ) Irrigation & Drainage Design & Construction Supervision

P ( ) Weaving & Knitting Operation

Q ( ) Water Supply & Sanitation Operation

R ( ) Water Supply System Structure Construction Management

3. Your Qualification Level

A. ( ) Level 1

B. ( ) Level 2

C. ( ) Level 3

D. ( ) Level 4

E. ( ) Level 5

4. Which of the following additional Subjects/Units have you studied? (*Check all that apply*)

A. ( ) Communication skills (*speaking, writing, listening, reading*)

B. ( ) IT skills (*use of computers*)

C. ( ) Problem-solving skills (*being able to analyse a problem and find creative solutions*)

D. ( ) Work ethics (*such as, attendance at work, reliability, punctuality, team work*)

E. ( ) Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)

F. ( ) Customer service skills (*such as, personal presentation, being polite, understanding a customer's needs and being able to meet these*)

G. ( ) Health and Safety skills (*such as, safety and emergency awareness, emergency preparedness, working in a safe way*)

H. ( ) Foreign Languages (*such as, English, French, Italian, Spanish, Germany, Chinese*)

I. ( ) Other (please specify):

.....

5. What applied to your situation in the first six months after leaving KPC?(*Multiple answers possible.*)

A. ( ) Employed

B. ( ) Self-employed with employees

C. ( ) Self-employed without employees

D. ( ) Pursuing further training/ education (*higher education, certificate, etc*)

E. ( ) Neither employed nor self-employed

## Section 2: Physical and Administrative Factors

During your study time at KPC, to what extent were you satisfied with the Educational, Physical and Administrative factors? Please respond to each of the ten (10) factors on the five-point scale, as shown below:

Range	1	2	3	4	5
Verbalisation	Not at all Satisfied	Somewhat not Satisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied

Physical and Administrative factors					
Resource Centre with reference materials (such as industry journals, recommended text books)	( )	( )	( )	( )	( )
Relevant Course Curriculum	( )	( )	( )	( )	( )
External collaborations (such as, external assessors, guest lecturers, industry experts, exchange program)	( )	( )	( )	( )	( )
Practice Workshops/laboratories with tools and equipment (including Simulators)	( )	( )	( )	( )	( )
Industrial linkages (such as, Internship Programme and cooperative training with industry)	( )	( )	( )	( )	( )
IT facilities (such as, computers, online learning technologies)	( )	( )	( )	( )	( )
Audio-Visual Aids	( )	( )	( )	( )	( )
Management of the KPC	( )	( )	( )	( )	( )
Recreational facilities in the compound	( )	( )	( )	( )	( )
Careers advice and guidance (such as, help in finding a job)	( )	( )	( )	( )	( )

## Section 3 - Employment Status

1. What is your present employment status?

- Employed ([go to 3.A](#))  
 Self-employed ([go to Section 3.B](#))  
 Neither employed nor self-employed ([go to Section 3.D](#))  
 Pursuing Further education/training ([go to Section 3.E](#))

### Sub-section 3.A – Employed Graduates

#### 3.A.I Details of Employment

1. Is this your first job after leaving KPC?

- Yes ([go to Q 1.1](#))     No ([go to Q 1.2](#))

1.1 How long did it take you to find your first job after leaving KPC?

- 0-3 Months  
 4-6 Months  
 7-9 Months

- ( ) 10-12 Months  
 ( ) More than 12 Months
- 1.2 How long did it take you to find your present job *(Do not answer if this is your first job)?*
- ( ) 0-3 Months  
 ( ) 4-6 Months  
 ( ) 7-9 Months  
 ( ) 10-12 Months  
 ( ) More than 12 Months
2. What is the name of your current employer? -----
- 2.1 Address of your employer here?
- City -----  
 Country -----  
 Telephone -----
3. In what industry sector are you employed in?
- ( ) Agriculture, forestry and fishing  
 ( ) Mining and quarrying  
 ( ) Manufacturing (textile Factory, Garment Factory, or other related)  
 ( ) Electricity, gas, steam and air conditioning supply  
 ( ) Water supply; sewerage, waste management and remedial activities  
 ( ) Construction  
 ( ) Automotive industry, repair of motor vehicles and motorcycles  
 ( ) Transportation and storage *(such as, road, rail, water and air)*  
 ( ) Accommodation and food service activities  
 ( ) Information and communication  
 ( ) Financial and insurance activities  
 ( ) Real estate activities  
 ( ) Professional, scientific and technical activities  
 ( ) Administrative and support service activities  
 ( ) Public administration and defence  
 ( ) Education  
 ( ) Human health and social work activities  
 ( ) Arts, entertainment and recreation  
 ( ) Other service activities  
 ( ) Other, please specify: -----
4. In what way did you find your job? *(Tick all that apply)*
- ( ) Advertisements of vacancies in newspapers/television/radio *(such as,daily papers, special periodicals)*  
 ( ) Advertisements on the Internet *(e.g. government websites, company websites)*  
 ( ) Internal advertisements of vacancies  
 ( ) Direct applications  
 ( ) Through Career Guidance and Counselling Service in the College  
 ( ) Referral/ Endorsement by KPC  
 ( ) Other contacts at the KPC  
 ( ) Personal contacts *(Relatives, friends or/and colleagues)*  
 ( ) Public work administration *(such as,public placement services, manpower allocation system)*  
 ( ) Private employment agencies  
 ( ) Industry Linkages during training *(e.g. apprenticeship, on the job training)*  
 ( ) Social networks *(e.g. Facebook, LinkedIn)*  
 ( ) Binding students by scholarships  
 ( ) Other (please specify): .....
5. What is the status of your employment? *(Tick only one box)*
- ( ) **Part-time** ( ) **Contractual** ( ) **Temporary** ( ) **Permanent**
6. State number of working hours per week *(Tick only one box)*
- ( ) Less than **16** Hours ( ) **16 to 32** Hours ( ) **33 to 48** Hours ( ) More than **48** Hours
7. How much is your salary (per month) of your present job? *(Tick only one box)*

- ( ) Below Birr **5,000**
- ( ) Birr **5,000** – Birr **9,999**
- ( ) Birr **10,000** – Birr **14,999**
- ( ) Birr **15,000** and above

8. Are you facing any challenges in relation to your present job?  
 ( ) Yes (*go to Q 8.1*) ( ) No

8.1 What employment challenges are you facing? (*Check all that apply*)

Please specify-----  
 -----  
 -----

**3.A2 Relationship Between Study and Employment** (*Demonstration of Knowledge and Skills*)

1. Is your present work related to the area/field you studied at KPC?

- ( ) Yes (*go to Q 1.1*)
- ( ) No (*go to Q 1.2*)

1.1 If **YES**, based on your studies and your present work, to what extent are you satisfied with the Knowledge and Skills you acquired at KPC? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
<b>Verbalisation</b>	<b>Not at all Satisfied</b>	<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>
<b>KNOWLEDGE AND SKILLS ASPECTS</b>					
Knowledge ( <i>theoretical training related to my specialization and occupation</i> )	( )	( )	( )	( )	( )
Practical, job-related skills ( <i>such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance</i> )	( )	( )	( )	( )	( )
Communication skills ( <i>speaking, writing, listening, reading</i> )	( )	( )	( )	( )	( )
IT skills ( <i>use of computers</i> )	( )	( )	( )	( )	( )
Problem-solving skills ( <i>being able to analyse a problem and find creative solutions</i> )	( )	( )	( )	( )	( )
Work ethics ( <i>such as, discipline, attendance at work, reliability, punctuality, team work</i> )	( )	( )	( )	( )	( )
Entrepreneurship skills ( <i>such as, market research, business planning, financial management, leading others</i> )	( )	( )	( )	( )	( )
Customer service skills ( <i>such as, personal presentation, being polite, understanding a customer's needs and being able to meet these</i> )	( )	( )	( )	( )	( )
Health and Safety skills ( <i>such as, safety and emergency awareness, emergency preparedness, working in a safe way</i> )	( )	( )	( )	( )	( )
Performance ( <i>such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides</i> )	( )	( )	( )	( )	( )

1.2 If **NO**, what are the reason/s? *(Tick all that apply)*

- I didn't find a job opportunity related to my course of study
- I found something not related but had better salary and benefits
- Personal reason(s)
- The workplace is close to where I live
- Others, please specify -----

### 3.A3 Job Satisfaction for Employed Graduates

1. To what extent are you satisfied with the following aspects of your present job? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
<b>Verbalisation</b>	<b>Not at all Satisfied</b>	<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>
<b>Job Satisfaction</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Interesting work tasks	( )	( )	( )	( )	( )
Being able to work with some independence	( )	( )	( )	( )	( )
Clear and regulated work tasks	( )	( )	( )	( )	( )
Possibilities for applying what you learned when studying	( )	( )	( )	( )	( )
Job security	( )	( )	( )	( )	( )
Social status and recognition	( )	( )	( )	( )	( )
Income and benefits	( )	( )	( )	( )	( )
Good social climate / work setting	( )	( )	( )	( )	( )
Good career advancement prospects	( )	( )	( )	( )	( )
Being able to coordinate/supervise work	( )	( )	( )	( )	( )

### 3.A4 – Further Training for Employed Graduates

1. Did you participate in further training since you graduated?

- Yes *(go to Q 1.1 & 1.2)*     No *(go to Q 2)*

1.1 If **YES**, what type of further training did you participate in *(Tick only one box)*

- Further academic education in similar field *(higher education degree)*
- Further academic education in a different field *(Higher education degree)*
- Further vocational education/training in similar occupational area *(higher level or degree)*
- Further vocational education/training in a different occupational area *(Higher level or degree)*
- Further professional certification/license to practice *(such as vocational certificate)*

1.2 What courses did you study while pursuing further training?

- Course 1-----
- Course 2-----

- ( ) Course 3-----
2. If **NO**, why did you not pursue further training? *(Tick all that apply)*
- ( ) No relevant course available
  - ( ) No need for further training
  - ( ) No money to pay for training
  - ( ) No time to attend training
  - ( ) Others, please specify -----
3. Would you like to pursue further training?
- ( ) Yes *(go to Q 3.1)* ( ) No *(go to Section 4)*
- 3.1 If **YES**, what further training do you need? please specify.....
- 

### **Sub-section 3.B – Self-Employed Graduates**

#### **3.B1 Details of Business Activities for Self-Employed Graduates**

1. How long did it take you to start your present business *(Do not answer if this is your first business)?*
- ( ) 0-3 Months
  - ( ) 4-6 Months
  - ( ) 7-9 Months
  - ( ) 10-12 Months
  - ( ) More than 12 Months
2. In what industry sector are you engaging in?
- ( ) Agriculture, forestry and fishing
  - ( ) Mining and quarrying
  - ( ) Manufacturing (textile, garment or other related)
  - ( ) Electricity, gas, steam and air conditioning supply
  - ( ) Water supply; sewerage, waste management and remediation activities
  - ( ) Construction
  - ( ) Automotive technology, repair of motor vehicles and motorcycles
  - ( ) Transportation and storage *(such as, road, rail, water and air)*
  - ( ) Accommodation and food service activities
  - ( ) Information and communication
  - ( ) Financial and insurance activities
  - ( ) Real estate activities
  - ( ) Professional, scientific and technical activities
  - ( ) Administrative and support service activities
  - ( ) Public administration and defence; compulsory social security
  - ( ) Education
  - ( ) Human health and social work activities
  - ( ) Arts, entertainment and recreation
  - ( ) Other service activities
  - ( ) Other, please specify: -----

#### **3.B2 Business Size and Financing for Self-Employed Graduates**

1. Do you have employees?
- ( ) Yes, I am Self-employed with employees
  - ( ) No, I am Self-employed without employees
2. Were you able to access financing for your business?
- ( ) Yes *(go to Q 2.1)* ( ) No *(go to Q 3)*
- 2.1 Which business financing options were you able to access *(Check all that apply)*
- ( ) Microfinance
  - ( ) Bank loan
  - ( ) Government sources
  - ( ) Friends & Relatives
  - ( ) Business Incubation

( ) Others, please specify-----

3. Are you facing any challenges in relation to your business?

( ) Yes (go to Q 4.1) ( ) No

3.1 What business challenges are you facing? (Check all that apply)

( ) Cash flow

( ) No qualified workers

( ) No Customers/clients

( ) Others, please specify-----

### 3.B3 Relationship Between Study and Self-Employment (Demonstration of Knowledge and Skills)

1. Is your present business related to the occupational area you studied at KPC? (Tick only one box)

( ) Yes (go to Q 1.1) ( ) No (go to Q 1.2)

If **YES**, based on your studies and your present business, to what extent are you satisfied with the Knowledge and Skills you acquired at KPC? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
<b>Verbalisation</b>	<b>Not at all Satisfied</b>	<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>
<b>KNOWLEDGE AND SKILLS ASPECTS</b>					
Knowledge ( <i>theoretical training related to my specialization and occupation</i> )	( )	( )	( )	( )	( )
Practical, job-related skills ( <i>such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance</i> )	( )	( )	( )	( )	( )
Communication skills ( <i>speaking, writing, listening, reading</i> )	( )	( )	( )	( )	( )
IT skills ( <i>use of computers</i> )	( )	( )	( )	( )	( )
Problem-solving skills ( <i>being able to analyse a problem and find creative solutions</i> )	( )	( )	( )	( )	( )
Work ethics ( <i>such as, discipline, attendance at work, reliability, punctuality, team work</i> )	( )	( )	( )	( )	( )
Entrepreneurship skills ( <i>such as, market research, business planning, financial management, leading others</i> )	( )	( )	( )	( )	( )
Customer service skills ( <i>such as, personal presentation, being polite, understanding a customer's needs and being able to meet these</i> )	( )	( )	( )	( )	( )
Health and Safety skills ( <i>such as, safety and emergency awareness, emergency preparedness, working in a safe way</i> )	( )	( )	( )	( )	( )

Performance ( <i>such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides</i> )	( )	( )	( )	( )	( )
--	-----	-----	-----	-----	-----

- 1.2 If **NO**, what are the reason/s?
- ( ) There was no business opportunity related to my course of study
  - ( ) I found an unrelated business opportunity which had better returns
  - ( ) Personal Reason(s)
  - ( ) The business is close to where I live
  - ( ) Others, please specify -----

**3. B4 – Further Training for Self-Employed Graduates**

1. Did you participate in further training since you graduated?
- ( ) Yes (*go to Q 1.1 & 1.2*) ( ) No (*go to Q 2*)
- 1.1 If **YES**, what type of further training did you participate in (*Tick only one box*)
- ( ) Further academic education in similar field (*higher education degree*)
  - ( ) Further academic education in a different field (*Higher education degree*)
  - ( ) Further vocational education/training in similar occupational area (*higher level or degree*)
  - ( ) Further vocational education/training in a different occupational area (*Higher level or degree*)
  - ( ) Further professional certification/license to practice (*such as vocational certificate*)
- 1.2 What courses related to your previous study did you take while pursuing further training to help you in your employment?
- ( ) Course 1 -----
- ( ) Course 2-----
- ( ) Course 3-----
2. If **NO**, why have you not pursued further training?
- ( ) No relevant course available
  - ( ) No need for further training
  - ( ) No money to pay for training
  - ( ) No time to attend training
  - ( ) Others, please specify -----
3. Would you like to pursue further training?
- ( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)
- 3.1 If **YES**, what further training do you need? Please specify.....
- .....

**Sub-section 3.C – Neither Employed Nor Self-Employed Graduates**

**3.C1 – Reasons for Not being employed Nor Self-Employed**

1. If you are not employed, please tick (☐) the reason (s) (*Tick all that apply*).
- ( ) Family concerns
  - ( ) Opted not to look for a job
  - ( ) Unsuccessful application
  - ( ) Lost previous job
  - ( ) No job opportunity in the desired field
  - ( ) No professional certification
  - ( ) Other reasons, please specify-----

**3. C2 – Further Training for Graduates who are Neither Employed Nor Self-Employed**

1. Did you participate in further training since you graduated?
- ( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)
- 1.1 If **YES**, what type of further training did you participate in (*Tick all that apply*)
- ( ) Further academic education in similar field (*higher education degree*)
  - ( ) Further academic education in a different field (*Higher education degree*)
  - ( ) Further vocational education/training in similar occupational area (*higher level or degree*)
  - ( ) Further vocational education/training in a different occupational area (*Higher level or degree*)
  - ( ) Further professional certification/license to practice (*such as vocational certificate*)

1.2 What courses related to your previous study did you take while pursuing further training to help you in your employment?

- ( ) Course 1-----
- ( ) Course 2-----
- ( ) Course 3-----

2. If **NO**, why did you not pursue further training? *(Tick all that apply)*

- ( ) No relevant course available
- ( ) No need for further training
- ( ) No money to pay for training
- ( ) No time to attend training
- ( ) Others, please specify -----

3. Would you like to pursue further training?

- ( ) Yes *(go to Q 3.1)*    ( ) No *(go to Section 4)*

3.1 If **YES**, what further training do you need? please specify.....  
.....

**Sub-section 3.D Graduates Pursuing Further Training**

1. If you are presently pursuing further training (university, evening classes, short courses), what type of further training have you participate in? *(Tick only one box)*

- ( ) Further academic education in similar field *(higher education degree)*
- ( ) Further academic education in a different field *(Higher education degree)*
- ( ) Further vocational education/training in similar occupational area *(higher level or degree)*
- ( ) Further vocational education/training in a different occupational area *(Higher level or degree)*
- ( ) Further professional certification/license to practice *(such as vocational certificate)*

2. What courses related to your previous study did you take while pursuing further training to help you in your employment?

- ( ) Course 1-----
- ( ) Course 2-----
- ( ) Course 3-----

3. Would you like to attend any further training courses?

- ( ) Yes *(go to Q 3.1)*    ( ) No *(go to Section 4)*

3.1 If **YES**, what further training do you need? Please specify.....  
.....

**Section 4 - Comments and Recommendations**

4.1. What important changes would you recommend for the Program of study you attended at the KPC? *(Please share your opinion on the areas that require improvement.)*

.....  
.....  
.....

4.2. Would you recommend a prospective learner to pursue the department you attended at the KPC?

- ( ) Yes *(go to Q 3)*    ( ) No *(go to Q 2.1)*

4.3. If **NO**, please specify .....  
.....

4.4. Do you have any comments/suggestions regarding this survey?

- ( ) Yes *(go to Q 3.1)*                      ( ) No

4.5. If **YES**, please specify.....  
.....

**Thank you for your cooperation!**

**Annex I.2: Survey Questionnaire for Trainers'**

**2.1. Trainers Tracer Studies Survey Introductory Letter**

Dear KPC staff member,

As head of the research group, I kindly request your participation in a survey of Kombolcha Polytechnic College (KPC) graduates who completed their studies in 2021-2022. We would like to find out what happened to them after they completed their studies at KPC. Did they find a job or are they still looking for a job, did their studies prepare them well for the workplace, and do they use the knowledge and skills they have learned during their studies? These are the major questions that you will be asked during the study.

The core objective of the survey is to improve the training in the departments and, more specifically, to guide the revision of the curricula. Your information will be treated in strict confidence. The results will be published in such a way that identification of individual respondents is excluded. Results of this survey will be published on the website of the KPC. Kindly complete the questionnaire and return it to our data collectors.

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years. We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) brackets which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (e.g. **Please go to Q**).

The content of the questionnaire includes the following sections:

Section 1: Demographic Information

Section 2: Details of the program

Section 3: Physical and Administrative Factors

Section 4: Demonstration of Knowledge and Skills.

Section 5: Industrial Exchange Program

Section 6: Comments and Recommendations

If you have any questions or require further clarifications, please send them to the email address mentioned below.

Phone: 0940554040 or 0921636755

E-mail: walya.management@gmail.com

Thank you very much in advance for your kind support.

Yours sincerely,

Wondu Tesfaye

Project Manager of the Tracer Study

## 2.2. KPC Teaching Staff/Trainer Questionnaire

### Section 5: Demographic Information

Which of the options below best describes your Role/Position at the KPC? *(Tick only one box)*

Head of Department

Deputy Head of Department

Course Instructor

Workshop Technician

What is your department? .....

When were you first posted to (or employed at) KPC? *(Tick only one box)*

Less than 3 years     Between 3 and 5 years     More than 5 years

### Section 1: Details of the program

I. Which of the options below best describes the balance/ratio between Practical competences and theoretical Knowledge requirements for the training program? *(Tick only one box)*

10 percent Practical, 90 percent Theory

20 percent Practical, 80 percent Theory

30 percent Practical, 70 percent Theory

40 percent Practical, 60 percent Theory

50 percent Practical, 50 percent Theory

60 percent Practical, 40 percent Theory

70 percent Practical, 30 percent Theory

Other (Please specify).....

2. Is the program curriculum periodically reviewed?

Yes (go to Q 3.1)     No (go to Q 3.3)

2.1 How often is the program curricula reviewed? (Tick only one box)

Less than 24 Months

25 Months to 48 Months

49 Months to 60 Months

More than 60 Months

2.2 How is the program curricula reviewed? (Tick all that apply.)

Directly checking with employers

Using occupational standards

Other (please specify): .....

2.3 If NO, why not?

Please specify.....

### Section 2: Physical and Administrative Factors

While you teach at KPC, to what extent are you satisfied with the ten (10) Physical and Administrative factors? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
Physical and Administrative factors		<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>
Resource Centre with reference materials (such as, industry journals, recommended text books)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relevant Course Curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External collaborations (such as, external assessors, guest lecturers, industry experts, exchange program)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Practice Workshops/laboratories with tools and equipment (including Simulators)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial linkages (such as, Internship Programme and industrial visits for students)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT facilities (such as, computers, online learning technologies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audio-Visual Aids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management of the KPC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreational facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Careers advice and guidance (such as, help in finding a job)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Section 3: Demonstration of Knowledge and Skills

If you trained graduates, to what extent are you satisfied with their demonstration of the following Knowledge and Skills aspects? Please respond to each of the ten factors on the five-point scale, as shown

below.

Range	1	2	3	4	5
Verbalisation	Not at all Satisfied	Somewhat not Satisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied

KNOWLEDGE AND SKILLS ASPECTS					
Knowledge ( <i>theoretical training related to my specialization and occupation</i> )	( )	( )	( )	( )	( )
Practical, job-related skills ( <i>such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance</i> )	( )	( )	( )	( )	( )
Communication skills ( <i>speaking, writing, listening, reading</i> )	( )	( )	( )	( )	( )
IT skills ( <i>use of computers</i> )	( )	( )	( )	( )	( )
Problem-solving skills ( <i>being able to analyse a problem and find creative solutions</i> )	( )	( )	( )	( )	( )
Work ethics ( <i>such as, discipline, attendance at work, reliability, punctuality, team work</i> )	( )	( )	( )	( )	( )
Entrepreneurship skills ( <i>such as, market research, business planning, financial management, leading others</i> )	( )	( )	( )	( )	( )
Customer service skills ( <i>such as, personal presentation, being polite, understanding a customer's needs and being able to meet these</i> )	( )	( )	( )	( )	( )
Health and Safety skills ( <i>such as, safety and emergency awareness, emergency preparedness, working in a safe way</i> )	( )	( )	( )	( )	( )
Performance ( <i>such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides</i> )	( )	( )	( )	( )	( )

#### Section 4: Industrial Exchange Program

Have you participated in an **Industrial Exchange** program?(Tick only one)

( ) Yes(*go to Q 1.2*)      ( ) No (*go to Q 3*)

1.2. If Yes, when was the last time that you participated in an **Industrial Exchange** program? (*Tick only one*)

( ) 0 - 6 Months

( ) 7 - 12 Months

( ) 13 - 18 Months

( ) 19 - 24 Months

( ) More than 24 Months

2. Did you experience any challenge while participating in the **Industrial Exchange** program?

Yes (go to Q 2.1)                       No (go to Q 3)

2.1 If **YES**, please specify.....

3. If you have not participated in an **Industrial Exchange** program, what are the decisive reasons for this?

Please specify: .....

### **Section 5: Comments and Recommendations**

1. What important changes would you recommend for the department/ program of study that you are part at the Kombolcha Polytechnic College? (*Please share your opinion on the areas that require improvement.*)

Yes (go to Q 1.1)     No (go to Q 2)

1.1 If **YES**, please specify.....

3. Would you recommend a prospective learner to pursue the program at the KPC?

Yes (go to Q 3)                       No (go to Q 2.1)

2.1 If **NO**, please specify .....

Do you have any comments/suggestions regarding this survey?

Yes (go to Q 3.1)  No

3.1 If **YES**, please specify.....

**Thank you very much for completing the questionnaire!**

## **Annex 1.3: Survey Questionnaire for Employers of KPC Graduates**

### **3.1. KPC Employer Tracer Studies Survey Introductory Letter**

#### **Dear Employer,**

As head of the research group, I kindly request your participation in a survey of Kombolcha Polytechnic College (KPC) graduates who completed their studies in 2021-2022. We would like to find out what happened to you after you completed your studies at KPC. Did they find a job or are they still looking for a job, did their studies prepare them well for the workplace, and do they use the knowledge and skills they have learned during their studies? These are the major questions that you will be asked during the study. The core objective of the survey is to improve the training in departments and, more specifically, to guide the revision of the curricula. Your information will be treated in strict confidence. The results will be published in such a way that identification of individual respondents is excluded. Results of this survey will be published on the website of the KPC. Kindly complete the questionnaire and return it to our data collectors.

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years. We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (**e.g. Please go to Q**).

The content of the questionnaire includes the following sections:

Section 1 - Identification of the Company/Organization

Section 2 - Demographic Information

Section 3 – Employment of the Program Graduates

Section 4 - Participation in Cooperative Training

Section 5 – Industrial Exchange for training Staff

Section 6 – Ease of Finding Employees with Needed Skills

Section 7 - Comments and Recommendations

If you have any questions or require further clarifications, please send them to the email address mentioned below. Phone: 0940554040 or 0921636755; E-mail: walya.management@gmail.com

Thank you very much in advance for your kind support.

Yours sincerely,

Wondu Tesfaye

Project Manager of the Tracer Study

### 3.2. Questionnaire for Employers of KPC Graduates

#### Section I - Identification of the Company/Organization

I. Enterprise name -----

I.1 City -----

I.2 Country -----

I.3 Telephone -----

In what industry sector are you operating?

- Agriculture, forestry and fishing
- Mining and quarrying
- Manufacturing (such as garment, textile or related)
- Electricity, gas, steam and air conditioning supply
- Water supply, sewerage, waste management and remedial activities
- Construction
- Automotive industry, repair of motor vehicles and motorcycles
- Transportation and storage
- Accommodation and food service activities
- Information and communication
- Financial and insurance activities
- Real estate activities
- Professional, scientific and technical activities
- Administrative and support service activities
- Public administration and defence
- Education
- Human health and social work activities
- Arts, entertainment and recreation
- Other service activities
- Other, please specify: -----

3. What advertising media does the company/organization use to recruit employees? *(Tick all that apply.)*

- Advertisements of vacancies in newspapers/television/radio *(such as, daily papers, special periodicals)*
- Advertisements on the Internet *(e.g. government websites, company websites)*
- Internal advertisements of vacancies
- Direct applications by graduates
- Career guidance and counselling office at the KPC
- Referral/ Endorsement by KPC
- Other contacts at the KPC
- Personal contacts *(Relatives, friends or/and colleagues)*
- Public work administration *(such as, public placement services, manpower allocation system)*
- Private employment agencies
- Industry Linkages during training *(e.g. apprenticeship, on the job training)*
- Social networks *(e.g. Facebook, LinkedIn)*
- Binding students by scholarships
- Other (please specify): .....

#### Section 2: Demographic Information

I. Which of the options below best describes your Role/Position in the Company/Organization?

- Director or Deputy Director
- Human Resource Manager or Deputy Human Resource Manager
- Head of Department or Deputy Head of Department
- Supervisor

#### Section 3 - Employment of KPC Graduates

I. Have you employed graduates from the KPC? *(Include Permanent and Casual employees)*

- Yes *(go to Q 2)*       No *(go to Q 7)*

2. How many male and/or female graduates have you employed from KPC?(*Include Permanent and Casual employees*)

( ) ..... Male ....., Female.....

4. How important in general are the following aspects for the recruitment of Graduates? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
<b>Verbalisation</b>	<b>Not at all Satisfied</b>	<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>
Recruitment of Graduates					
Field of study and specialization	( )	( )	( )	( )	( )
Grades of examinations at the college	( )	( )	( )	( )	( )
Practical experience acquired during course of study	( )	( )	( )	( )	( )
Reputation of the college	( )	( )	( )	( )	( )
Recommendations/references from third persons	( )	( )	( )	( )	( )
Results of recruitments tests	( )	( )	( )	( )	( )
Knowledge of foreign language	( )	( )	( )	( )	( )
Personal presentation	( )	( )	( )	( )	( )
Candidate's own world view	( )	( )	( )	( )	( )
Ability to work in multiracial environment	( )	( )	( )	( )	( )

4. If you employ graduates from KPC, to what extent are you satisfied with their demonstration of the following Knowledge and Skills aspects? Please respond to each of the ten factors on the five-point scale, as shown below.

Range	1	2	3	4	5
<b>Verbalisation</b>	<b>Not at all Satisfied</b>	<b>Somewhat not Satisfied</b>	<b>Neither Satisfied Nor Dissatisfied</b>	<b>Satisfied</b>	<b>Very Satisfied</b>

<b>KNOWLEDGE AND SKILLS ASPECTS</b>					
Knowledge ( <i>theoretical training related to my specialization and occupation</i> )	( )	( )	( )	( )	( )
Practical, job-related skills ( <i>such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance</i> )	( )	( )	( )	( )	( )

Communication skills ( <i>speaking, writing, listening, reading</i> )	( )	( )	( )	( )	( )
IT skills ( <i>use of computers</i> )	( )	( )	( )	( )	( )
Problem-solving skills ( <i>being able to analyse a problem and find creative solutions</i> )	( )	( )	( )	( )	( )
Work ethics ( <i>such as, discipline, attendance at work, reliability, punctuality, team work</i> )	( )	( )	( )	( )	( )
Entrepreneurship skills ( <i>such as, market research, business planning, financial management, leading others</i> )	( )	( )	( )	( )	( )
Customer service skills ( <i>such as, personal presentation, being polite, understanding a customer's needs and being able to meet these</i> )	( )	( )	( )	( )	( )
Health and Safety skills ( <i>such as, safety and emergency awareness, emergency preparedness, working in a safe way</i> )	( )	( )	( )	( )	( )
Performance ( <i>such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides</i> )	( )	( )	( )	( )	( )

5. Do Graduates from KPC need additional training to do their work well in your company? *(Tick only one box)*

- Normally they are fully prepared to do the work well
- They need only an introductory training
- They need to learn some additional skills (Please specify-----)
- They need serious skills upgrading to start working
- They need completely new training

6. Are you experiencing any challenge(s) with the KPC graduates you have employed?

- Yes *(go to Q 6.1)*
- No *(go to Section 3)*

6.1 If **YES**, please specify.....

7. If you do not employ any graduates from KPC, what are the decisive reasons for this?

Please specify: .....

**Section 4 - Engagement in cooperative training**

1. Do you participate in cooperative training program ?

- Yes*(go to Q 2)*
- No *(go to Section 4)*

2. Are the trainees from KPC undergoing cooperative training in your company/organization ?

- Yes
- No

3. How many male and/or female trainees are undergoing cooperative training in your company?

- ..... Male ....., Female.....

4. Are you experiencing any challenge(s) with the trainees enrolled in cooperative training program?

- Yes *(go to Q 6.1)*
- No *(go to Section 4)*

4.1 If **YES**, please specify.....

5. If your cooperative training program does not include any trainees from KPC, what are the decisive reasons for this?

Please specify: .....

**Section 5: Industrial Exchange Program for KPC Staff**

1. Do you have an **Industrial Exchange** program with instructors from KPC?

Yes (go to Q 2)       No (go to Section 4)

2. How many male and/or female Staff are participating in the Industrial Exchange program?

..... Male ..... Female.....

3. Are you experiencing any challenge with the Staff participating in your Industrial Exchange program?

Yes (go to Q 3.1)       No (go to Section 4)

3.1 If **YES**, please specify.....

4. If your Industrial Exchange program does not include Staff from KPC, what are the decisive reasons for this?

Please specify: .....

### **Section 6 – Ease of Finding Employees with Needed Skills**

1. Is your company/organization experiencing problems finding employees with the skills that you need?

Yes (go to Q 2)       No (go to Section 6)

2. In which occupations does your company/organization commonly experience skills shortages?

Occupation 1-----

Occupation 2-----

Occupation 3-----

Occupation 4-----

Occupation 5-----

### **Section 7: Comments and Recommendations**

1. What important changes would you recommend for the program of study at the KPC? (*Please share your opinion on the areas that require improvement.*)

Specify.....

2. Would you recommend a prospective learner to pursue the Program at the KPC?

Yes (go to Q 3)       No (go to Q 2.1)

2.1 If **NO**, please specify .....

5. Do you have any comments/suggestions regarding this survey?

Yes (go to Q 3.1)       No

3.1 If **YES**, please specify.....

**Thank you very much**

Annex 2: Profile of 2021-2022 KPC Graduates (Source: Registrar of KPC)

KOMBOLCHA POLYTECHNI COLLEGE 2014 GRADUATES

KOMBOLCHA POLYTECHNI COLLEGE 2014 GRADUATES

No	Id	Name			sex	programs	level	phon number
1	EX/ICS/285/14	Abdu አብዱ	Kedir	□ussen	M	INSTUREMENTATION AND CONTROLL SERVICING	III	910301313
2	EX/ICS/286/14	Dereje ደረጀ	Tesfaye	Aragaw	M	INSTUREMENTATION AND CONTROLL SERVICING	III	961□55050
3	EX/ICS287/14	Meaza ማአዛ	Kassaw	Aragaw	M	INSTUREMENTATION A□D CONTROLL SERVICING	III	97502511
4	EX/ICS288/14	Lubaba ሉባባ	Ahmed	Muh□e	M	INSTUREMENTATION AND CONTR□LL SERVICI□G	III	946186796
5	EX/ICS289/14	Dawit ዳዊት	Goche	Ayele		INSTUREMENTATION AND CONTROLL SERVICING	III	941432795
6	EX/ICS/290/14	Yohannise ዩሀንስ	Kebede	Diba	M	INSTUREMENTATION AND CONTROLL SERVICING	III	928347488
7	EX/ICS/□91/14	Habib ሀቢብ	Awol	Mohammed	F	INSTUREMENTATION AND CONTROLL SERVICI□G	III	932960110
8	EX/ICS/292/□4	Yonas ዮናስ	Abay	Berhie	F	INSTU□EMENTATION AND CONTROLL SERVICING	III	939318978
9	EX/ICS/293/14	Natnaiel ናትናኤል	Nigussie	W/Hanna	M	INS□UREMENTATI□N AND CONTROLL SERVICING	III	931969822
10	EX/ICS/294/14	Emru እምሩ	Yimer	Ali	F	INSTUREMENTATION AND CONTROLL SERVICING	III	911007006
11	EX/ICS/295/14	Seid ሰይድ	Adem	seid	M	INSTUREMENTATION AND CONTROLL SERVICING	□II	916252522
12	EX/ICS/296/14	Anwar	Mahmmud	Hassen	F	INSTUREME□TATION AND	□II	9916419□0

		አንዋር				CONTROLL SERVICING		
13	EX/ICS/297/14	Awol አወል	Seid	Mengesha	M	INSTUMENTATION AND CONTROLL SERVICING	III	921951719
14	EX/ICS/298/14	Zumra ዙምራ	Beshir		M	INSTUMENTATION AND CONTROLL SERVICING	III	945059922
15	EX/ICS/299/14	Yesuf የሱፍ	Mohammed	Mohammed	M	INSTUMENTATION AND CONTROLL SERVICING	III	921417907
16	EX/ICS/300/14	Sofiya ሶፍያ	Seid		M	INSTUMENTATION AND CONTROLL SERVICING	III	91003997
17	EX/ICS/301/14	Belay በላይ	Meselet	Yifru	M	INSTUMENTATION AND CONTROLL SERVICING	III	919827937
18	EX/ICS/302/14	Getnet ጌትነት	Alemu		M	INSTUMENTATION AND CONTROLL SERVICING	III	914738076
19	EX/ICS/303/14	Ekram ኤክራም	Hussen	Yimer	M	INSTUMENTATION AND CONTROLL SERVICING	III	95137798
2	EX/ICS/304/14	Shimelis ሸሙልስ	Kifle	Ayalew	M	INSTUMENTATION AND CONTROLL SERVICING	III	928359780
21	EX/ICS/305/14	Kedir ከድር	Mohammed	Ali	M	INSTUMENTATION AND CONTROLL SERVICING	III	921977165
22	EX/ICS/306/14	Habtamu	Chekol	Tebeje	M	INSTUMENTATION AND CONTROLL SERVICING	III	921262580
23	EX/ICS/307/14	Ekram	Mohammed	Ali	M	INSTUMENTATION AND CONTROLL SERVICING	III	977909299
24	EX/ICS/308/14	Solomon	Tadese	Beyene	M	INSTUMENTATION AND CONTROLL SERVICING	III	921635484
25	EX/ICS/309/14	Kedir	Yimer	Tegegni	M	INSTUMENTATION AND CONTROLL SERVICING	III	980349343
26	EX/ICS/310/14	Mohammed	Hassen	Kasa	M	INSTUMENTATION AND CONTROLL SERVICING	III	935420271
27	EX/ICS/311/14	Yasin	Mohammed	Ahmed	M	INSTUMENTATION AND CONTROLL SERVICING	III	939811515

28	EX/ICS/312/14	Awol	Ali	Seid	F	INSTUMENTATION AND CONTROLL SERVICING	III	961560773
29	EX/ICS/313/14	Habtamu	Yohannise	Made	M	INSTUMENTATION AND CONTROLL SERVICING	III	983024121
30	EX/ICS/314/14	Zinet	Abate	Gebre	M	INSTUMENTATION AND CONTROLL SERVICING	III	925306880
31	EX/ICS/315/14	Anwar	Mohammed	Kebede	M	INSTUMENTATION AND CONTROLL SERVICING	III	942777480
32	EX/ICS/316/14	Hawulet	Ahmed	Mekonnen	M	INSTUMENTATION AND CONTROLL SERVICING	III	988571620
33	EX/ICS/317/14	Foziya	Mohammed	Seid	F	INSTUMENTATION AND CONTROLL SERVICING	III	946489456
34	EX/ICS/318/14	Kedir	Seid	Hussen	F	INSTUMENTATION AND CONTROLL SERVICING	III	916844326
35	EX/ICS/319/14	Leyla	Endris	Adem	F	INSTUMENTATION AND CONTROLL SERVICING	III	
36	EX/ICS/320/14	Mikael	Tizazu		F	INSTUMENTATION AND CONTROLL SERVICING	III	920787903
37	EX/ICS/321/14	Sofiya	Yesuf	Damte	M	INSTUMENTATION AND CONTROLL SERVICING	III	989876570
38	EX/ICS/322/14	Oumer ዑመር	Fentaw	Shikur	M	INSTUMENTATION AND CONTROLL SERVICING	III	938411325
39	EX/MISM/333/14	Kedir ከድር	Abdu	Abe□e	F	Mechatronics and Instrumentation Servicing Management	IV	942311691
40	EX/MISM/334/14	Semere ሰመረ	Mekonnen	Asade	M	Mechatronics and Instrumentation Servicing Management	IV	919607408
41	EX/MISM/335/14	Shambel ሻምበል	Tel□le	Hussen	M	Mechatronics and Instrumentation Servicing Management	IV	943256330
42	EX/MISM/336/14	Misbah ሜስባህ	Mohammed	Engida Eshetu	F	Mechatronics and Instrumentation Servicing Management	IV	919940557
43	EX/MISM/337/□4	Solomon	Abayineh	Abate	M	M□chatronics and Instrumentation Servicing Management	IV	918234003

		ሰለሞን						
44	EX/MISM/338/14	Maereg ማዕረግ	Sileshi	Arebu	M	Mechatronics and Instrumentation Servicing Management	IV	932358410
45	EX/MISM/339/14	Jemal ጀማል	Mohammed	Tadesse	M	Mechatronics and Instrumentation Servicing Management	IV	919130287
46	EX/MISM/340/14	Abebe አበበ	Kaጳaw	Bizuwerq	F	Mechatronics and Instrumentation Servicing Management	IV	922921931
47	EX/MISM/341/14	Biniyam ቢንያም	Ayalew	Yimer	F	Mechatronics and Instrumentation Servicing Management	I	927421304
48	EX/MISM/342/14	Muktar ሙክታር	Seid	Akalu	F	Mechatronics and Instrumentation Servicing Management	IV	937572333
49	EX/MISM/343/14	Kokeb ኮኮብ	Zelege	Abegaz	F	Mechatronics and Instrumentation Servicing Management	IV	916252735
50	EX/MISM/344/14	Maereg ማዕረግ	Dessie	Yesuf	F	Mechatronics and Instrumentation Servicing Management	IV	987220602
51	EX/MISM/345/14	Mohammed ሙሀመድ	Kasawu		F	Mechatronics and Instrumentation Servicing Management	IV	942484342
52	EX/MISM/346/14	Shiwaye ሻዋዩ	Shiferaw		F	Mechatronics and Instrumentation Servicing Management	IV	935257925
53	EX/MISM/347/14	Selamawit ሰላሞዊት	Mekonnen		F	Mechatronics and Instrumentation Servicing Management	IV	942816466
54	EX/MISM/348/14	Ahmed አህመድ	Endris	Getnet	F	Mechatronics and Instrumentation Servicing Management	IV	919463886
55	EX/MISM/349/14	Simachew ስማቸው	Baileyegni	Dejene		Mechatronics and Instrumentation Servicing Management	IV	929278101
56	EX/MISM/350/14	Sitotaw ስቲዮታው	Fikiru		F	Mechatronics and Instrumentation Servicing Management	IV	943271096
57	EX/MISM/351/14	Simegnew ስሜጅው	Abate	Ewunetu	F	Mechatronics and Instrumentation Servicing Management	IV	916842454
58	EX/MISM/352/14	Kalkidan	Tilahun		M	Mechatronics and Instrumentation	IV	972342004

		ቃልኪዳን				Servicing Management		
5	EX/MISM/353/14	Seada ስአዳ	Hussen	Yimam	F	Mechatronics and Instrumentation Servicing Management	IV	919465897
6	EX/MISM/354/14	Faiza ፋኢዛ	Endris	Seid	F	Mechatronics and Instrumentation Servicing Management	IV	918846658
61	EX/MISM/355/14	Nefisa ነፍሳ	Tadesse	Arage	F	Mechatronics and Instrumentation Servicing Management	IV	95312001
62	EX/MISM/356/14	Mohammed መሀመድ	Hassan		F	Mechatronics and Instrumentation Servicing Management	IV	960146772
63	EX/MISM/357/14	Mohammed መሀመድ	Adem		F	Mechatronics and Instrumentation Servicing Management	IV	914338779
64	EX/MISM/358/14	Etsegenet እፀገነት	Abebe		F	Mechatronics and Instrumentation Servicing Management	IV	945149960
65	EX/MISM/359/14	Tesfahun ተስፋሁን	Alene		F	Mechatronics and Instrumentation Servicing Management	IV	921038185
66	EX/MISM/360/14	Mohammed መሀመድ	Seid		F	Mechatronics and Instrumentation Servicing Management	IV	913878325
67	EX/MISM/361/14	Tayitu ጣይቱ	Melese		M	Mechatronics and Instrumentation Servicing Management	IV	907224956
68	EX/OSBCM/644/11	Abdu	Seid	Ahmed	M	OSIGHT BUILDING CONSTRUCTION MGT	V	975853306
69	EX/OSBCM/645/11	Abdu	Tareke	Segaw	F	OSIGHT BUILDING CONSTRUCTION MGT	V	977183488
70	EX/OSBCM/646/11	Abubeker	Seid	Ebrahim	F	OSIGHT BUILDING CONSTRUCTION MGT	V	925226855
71	EX/OSBCM/647/11	Alemu	Demeke	Desalegne	F	OSIGHT BUILDING CONSTRUCTION MGT	V	947653871
72	EX/OSBCM/648/11	Ali	Mohammed	Yimam	F	OSIGHT BUILDING CONSTRUCTION MGT	V	913881507
73	EX/OSBCM/649/11	Aminat	Adem	Mohammed	M	OSIGHT BUILDING CONSTRUCTION MGT	V	967716615
74	EX/OSBCM/650/11	Endris	Yasin	Mohammed	F	OSIGHT BUILDING CONSTRUCTION	V	913289395

						MGT		
75	EX/OSBCM/651/11	Genet	Chana	Ali	M	OSIGHT BUILDING CONSTURACTION MGT	V	955123827
76	EX/OSBCM/652/11	Hayat	Ahmed	Demsa	M	OSIGHT BUILDING CONSTURACTION MGT	V	931633595
77	EX/OSBCM/653/11	Hayat	Mohammed	Ahmed	M	OSIGHT BUILDING CONSTURACTION MGT	V	967379798
78	EX/OSBCM/654/11	Honelet	Asmarew	Legese	M	OSIGHT BUILDING CONSTURACTION MGT	V	939881087
79	EX/OSBCM/655/11	Miftah	Mohammed	Endris	M	OSIGHT BUILDING CONSTURACTION MGT	V	965116665
80	EX/OSBCM/656/11	Mohammed	AbdulHamid	Ahmed	M	OSIGHT BUILDING CONSTURACTION MGT	V	932230352
81	EX/OSBCM/657/11	Mohammed	Adem		M	OSIGHT BUILDING CONSTURACTION MGT	V	916153147
82	EX/OSBCM/658/11	Mohammed	Burhan	Ata	M	OSIGHT BUILDING CONSTURACTION MGT	V	909660591
83	EX/OSBCM/659/11	Mohammed	Ebrahim	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	925260982
84	EX/OSBCM/660/11	Mohammed	Endris	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	921276819
85	EX/OSBCM/661/11	Meshesa	Girma	Kibret	M	OSIGHT BUILDING CONSTURACTION MGT	V	914333546
86	EX/OSBCM/662/11	Osman	Eshetu	Ali	M	OSIGHT BUILDING CONSTURACTION MGT	V	910843579
87	EX/OSBCM/663/11	Osman	Mohammed		M	OSIGHT BUILDING CONSTURACTION MGT	V	942813710
88	EX/OSBCM/664/11	Samrawit	Ayalaw	Assefa	F	OSIGHT BUILDING CONSTURACTION MGT	V	913294887
89	EX/OSBCM/665/11	Selamawit	Wosen		F	OSIGHT BUILDING CONSTURACTION MGT	V	942302979
90	EX/OSBCM/666/11	Selemon	Mekonen	Damtew	M	OSIGHT BUILDING CONSTURACTION MGT	V	912889665
91	EX/OSBCM/667/11	Sualih	Seid	Mohammed	M	OSIGHT BUILDING CONSTURACTION MGT	V	921888453

92	EX/OSBCM/668/11	Tadese	Esetu	Sisay	M	OSIGHT BUILDING CONSTURACTION MGT	V	932358410
93	EX/OSBCM/1280/12	Zehara	Shimelis	Kebede	F	OSIGHT BUILDING CONSTURACTION MGT	V	938755520
94	EX/OSBCM/268/12	Alem	Work	Gobeza	F	OSIGHT BUILDING CONSTURACTION MGT	V	923647636
95	EX/OSBCM/269/12	Bushira	Ebrahim	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	943717153
96	EX/OSBCM/270/12	Hassen	Endris	Mohammed	M	OSIGHT BUILDING CONSTURACTION MGT	V	913018065
97	EX/OSBCM/271/12	Sdam	Abate	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	943760639
98	EX/OSBCM/272/12	Seid	Ahmed	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	931113183
99	EX/OSBCM/273/12	Surafil	Ali	Seid	M	OSIGHT BUILDING CONSTURACTION MGT	V	913615476
100	EX/OSBCM/274/12	Yuhans	Wodajo	H/Mikael	M	OSIGHT BUILDING CONSTURACTION MGT	V	935565354
101	EX/NRCD/029/14	Abdu	Seid	Musa	M	Natural Resources Conservation and Utilization Management	IV	942771773
102	EX/NRCD/030/14	Abdu	Seid	Muhe	M	Natural Resources Conservation and Utilization Management	IV	979103134
103	EX/NRCD/031/14	Aminu	Yimam	Hassen	M	Natural Resources Conservation and Utilization Management	IV	922608410
104	EX/NRCD/032/14	Answar	Yesuf	Yimer	M	Natural Resources Conservation and Utilization Management	IV	919989121
105	EX/NRCD/033/14	Assen	Werku	Mekonen	M	Natural Resources Conservation and Utilization Management	IV	935560712
106	EX/NRCD/034/14	Awol	Mohammed	Hussen	M	Natural Resources Conservation and Utilization Management	IV	938914996
107	EX/NRCD/035/14	Belaynesh	zinabu	Zikale	F	Natural Resources Conservation and Utilization Management	IV	919989121
108	EX/NRCD/036/14	Fikremariam	Tefera	Teshome	M	Natural Resources Conservation and Utilization Management	IV	982245475
109	EX/NRCD/037/14	Getachew	Away	Abebe	M	Natural Resources Conservation and Utilization Management	IV	938391014
110	EX/NRCD/038/14	Girma	Teshome	Reta	M	Natural Resources Conservation and Utilization Management	IV	938391024
111	EX/NRCD/039/14	Hana	Mohammed	Yimer	F	Natural Resources Conservation and Utilization	IV	925753164

						Management		
112	EX/NRCD/040/14	Kassaye	Getachew	Tesema	M	Natural Resources Conservation and Utilization Management	IV	923662338
113	EX/NRCD/041/14	Kebera	Awoke		M	Natural Resources Conservation and Utilization Management	IV	943268908
114	EX/NRCD/042/14	Kedir	Mohammed	Yimer	M	Natural Resources Conservation and Utilization Management	IV	914221383
115	EX/NRCD/043/14	Kindu	Stotaw	Ayele	M	Natural Resources Conservation and Utilization Management	IV	914151942
116	EX/NRCD/044/14	Mehammed	Hashim	Amedie	M	Natural Resources Conservation and Utilization Management	IV	914044244
117	EX/NRCD/045/14	Mekonnen	Asefa	Damtew	M	Natural Resources Conservation and Utilization Management	IV	904964600
118	EX/NRCD/046/14	Mesfin	damitew	Tamene	M	Natural Resources Conservation and Utilization Management	IV	914394141
119	EX/NRCD/047/14	Muhammed	Tesfaye	Begashaw	M	Natural Resources Conservation and Utilization Management	IV	914044244
120	EX/NRCD/048/14	Seada	Mohammed	Seid	M	Natural Resources Conservation and Utilization Management	IV	914044444
121	EX/NRCD/049/14	Seid	Abdu	Mohammed	M	Natural Resources Conservation and Utilization Management	IV	953808374
122	EX/NRCD/050/14	Seid	Ahmed	Hussen	M	Natural Resources Conservation and Utilization Management	IV	923662338
123	EX/NRCD/051/14	Seid	Husen	Ali	M	Natural Resources Conservation and Utilization Management	IV	914076219
124	EX/NRCD/052/14	Seid	Kebede	Asfaw	M	Natural Resources Conservation and Utilization Management	IV	914394141
125	EX/NRCD/053/14	Seid	Kebede	Wolle	M	Natural Resources Conservation and Utilization Management	IV	925871096
126	EX/NRCD/054/14	Seid	Yesuf	Yimam	M	Natural Resources Conservation and Utilization Management	IV	914365335
127	EX/NRCD/055/14	Wussen	derb	mohammed	M	Natural Resources Conservation and Utilization Management	IV	94100719
128	EX/NRCD/056/14	Yimer	Endris	Adem	M	Natural Resources Conservation and Utilization Management	IV	91999121
129	EX/NRCD/057/14	Zegeye	Delelegn	Ashenafi	M	Natural Resources Conservation and Utilization Management	IV	91999111
130	R/WSSS/946/11	Fatuma	Ahmed	Sualih	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	942824175
131	R/WSSS/947/11	Feben	Teshome	Wendmagegn	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	937594893

132	R/WSSS/949/11	Fentaye	Seid	Yimer	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	904213316
133	R/WSSS/953/11	Hawa	Mohammed	Seid	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	987951767
134	R/WSSS/954/11	Hawulet	Endris	Ahmed	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	928347431
135	R/WSSS/956/11	Kerima	Abdu	Hussen	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	921635217
136	R/WSSS/959/11	Mubarek	Meles	Tilahun	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	920271226
137	R/WSSS/962/11	Ousman	Ali	Ahmed	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	901472584
138	R/WSSS/966/11	Selima	Seid	Mohammed	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	979173606
139	R/WSSS/967/11	Serkalem	Bekele	Yimam	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	913754598
140	R/WSSS/969/11	Tewodros	Mezgebu	Sbhat	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	914612753
141	R/WSSO/904/11	Abdu	Seid	Ebrahim	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	942813923
142	R/WSSO/908/11	Betelhem	Teklay	Hailu	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	962544143
143	R/WSSO/912/11	Hanna	Mulugeta	Kebede	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	935419512
144	R/WSSO/913/11	Hanan	Ahmed	Mohammed	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	922928373
145	R/WSSO/915/11	Hawlet	Ahmed	Ebrahim	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	916842777
146	R/WSSO/916/11	Hawlet	Jemal	Mohammed	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	909940663
147	R/WSSO/917/11	Hayat	Ali	Kebede	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	945150198
148	R/WSSO/918/11	Hayat	Aragaw	Hassen	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	945725072
149	R/WSSO/921/11	Kalkidan	Demssew	Mekasha	F	WATER SUPPLY SANITATION AND	IV	920795859

						SUPEVISION		
150	R/WSSO/924/11	MohammedNur	Hussein	Seid	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	916845148
151	R/WSSO/925/11	Mohammed	Hussein	Hassen	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	947843600
152	R/WSSO/926/11	Mohammed	Jemal	Juhar	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	921260126
153	R/WSSO/929/11	Radi	Hassen	Seid	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	922608165
154	R/WSSO/932/11	Shumet	Assefa	Ayele	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	986620983
155	R/WSSO/933/11	Solomon	Demisse	Ejigu	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	916256661
156	R/WSSO/935/11	Solomon	Yohans	Tarekegn	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	916254728
157	R/WSSO/937/11	Temir	Endris	Yimam	F	WATER SUPPLY SANITATION AND SUPEVISION	IV	986155138
158	R/WSSS/180/13	Bogale	Kora	Legese	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	921536602
159	R/WSSO/1276/12	Shambel	Mekuria	Amare	M	WATER SUPPLY SANITATION AND SUPEVISION	IV	902703303
160	R/MEPM/884/11	Endris	Kebede	Yimam	M	METAL ENGEERING PRODUCTION MGT	V	906123094
161	R/MEPM/889/11	Jemal	Ebrahim	Ebrahim	M	METAL ENGEERING PRODUCTION MGT	V	975857849
162	R/MEPM/890/11	Jemal	Yasin	Yimer	M	METAL ENGEERING PRODUCTION MGT	V	919978026
163	R/MEPM/899/11	Seada	Mohammed	Yimer	F	METAL ENGEERING PRODUCTION MGT	V	985259228
164	R/MEPM/900/11	Solomon	Melaku	Eshetu	M	METAL ENGEERING PRODUCTION MGT	V	921951117
165	R/MEPM/819/10	Mulugeta	Gesese	Mengistu	M	METAL ENGEERING PRODUCTION MGT	V	912898153
166	R/MEPM/902/11	Yohanis	Frew	Yimer	M	METAL ENGEERING PRODUCTION MGT	V	904665833

167	R/MEPM/887/11	Fillimon	G/Giorgis	G/Amlak	M	METAL ENGEERING PRODUCTION MGT	V	931632168
168	R/MEPM/881/11	Assen	Ali	Yimer	M	METAL ENGEERING PRODUCTION MGT	V	942772264
169	Ex/MEPM/831/11	Mohammed	Mokenene	Ali	M	METAL ENGEERING PRODUCTION MGT	V	922880606
170	EX/WSSM/098/13	Abdu	Eshetu	Awol	M	WATER SUPPLY AND SANITATION MGT	V	939023982
171	EX/WSSM/099/13	Ali	Ahmed	Awol	M	WATER SUPPLY AND SANITATION MGT	V	919462598
172	EX/WSSM/100/13	Ali	Hussen	Abera	M	WATER SUPPLY AND SANITATION MGT	V	920781542
173	EX/WSSM/101/13	Anwar	Ebrahim	Hassen	M	WATER SUPPLY AND SANITATION MGT	V	942613862
174	EX/WSSM/103/13	Ayalew	Ambaw	Mengistu	M	WATER SUPPLY AND SANITATION MGT	V	921224614
175	EX/WSSM/105/13	Endris	Arebu	Ahmed	M	WATER SUPPLY AND SANITATION MGT	V	916846467
176	EX/WSSM/107/13	Ermias	Sileshi	Shawule	M	WATER SUPPLY AND SANITATION MGT	V	904685344
177	EX/WSSM/108/13	Esmael	Ahmed	Seid	M	WATER SUPPLY AND SANITATION MGT	V	915543225
178	EX/WSSM/111/13	Hayat	Ahmed	Seid	M	WATER SUPPLY AND SANITATION MGT	V	965062888
179	EX/WSSM/112/13	Jemal	Endris	Hussen	M	WATER SUPPLY AND SANITATION MGT	V	960742186
180	EX/WSSM/114/13	Kedir	Seid	Abegaze	M	WATER SUPPLY AND SANITATION MGT	V	909659885
181	EX/WSSM/115/13	Kedir	Yimer	Haile	M	WATER SUPPLY AND SANITATION MGT	V	930991628
182	EX/WSSM/116/13	Lubaba	Awol	Seid	M	WATER SUPPLY AND SANITATION MGT	V	935448798
183	EX/WSSM/117/13	Misgan	Berihun	Tashu	M	WATER SUPPLY AND SANITATION MGT	V	921276195
184	EX/WSSM/118/13	Nuru	Mekonenn	G/Mariam	M	WATER SUPPLY AND SANITATION	V	930613794

						MGT		
185	EX/WSSM/119/13	Rabia	Ahmed	Ali	F	WATER SUPPLY AND SANITATION MGT	V	932208225
186	EX/WSSM/182/13	Ousman	Abdurohman	Mohammed	F	WATER SUPPLY AND SANITATION MGT	V	939062608
187	EX/WSSM/267/13	Ergalem	G/Hiwot	G/Michael	M	WATER SUPPLY AND SANITATION MGT	V	914065483
188	EX/WSSM/267/13	Firehiwot	Shimels	Beyene	F	WATER SUPPLY AND SANITATION MGT	V	939062608
189	R/AES/021/12	ABERA	LEMMA			AUTO ENGIN SERVICING	IV	
190	R/AES/026/12	ANWAR	MUSA	AHMED		AUTO ENGIN SERVICING	IV	910130970
191	R/AES/030/12	EGRAM	AHMED	MOHAMMED		AUTO ENGIN SERVICING	IV	989876953
192	R/AES/036/12	HUSSEN	MAHMUD	NURU		AUTO ENGIN SERVICING	IV	912741005
193	R/AES/040/12	LEUL	MASRESHA	SEID		AUTO ENGIN SERVICING	IV	982042294
194	R/AES/042/12	MOHAMMED	JEMAL	AHMED		AUTO ENGIN SERVICING	IV	913757344
195	R/AES/043/12	MOHAMMED	JEMAL	ASSEFA		AUTO ENGIN SERVICING	IV	919463554
196	R/AES/045/12	MOHAMMED	TEMKIN	ADEM		AUTO ENGIN SERVICING	IV	943256136
197	R/AES/046/12	MOHAMMED	YIMAM	SEID		AUTO ENGIN SERVICING	IV	901472868
198	R/AES/048/12	SAMUEL	WONDIMU	WOTANGO		AUTO ENGIN SERVICING	IV	946134193
199	EX/AES/186/12	SULYMAN	MOHAMMED	HUSSIN		AUTO ENGIN SERVICING	IV	913273489
200	EX/AES/187/12	BELETE	AFIRE	BELEW		AUTO ENGIN SERVICING	IV	948922777
201	EX/AES/188/12	BESUFKAD	FENTA	TAREKE		AUTO ENGIN SERVICING	IV	95408448
202	EX/AES/189/12	BUSHERA	SEID	MURSELA		AUTO ENGIN SERVICING	IV	921977596
203	EX/AES/190/12	EBRAHIM	SEID	ALI		AUTO ENGIN SERVICING	IV	938835384
204	EX/AES/191/12	EPHERAM	YIMER	BELETE		AUTO ENGIN SERVICING	IV	912802318
205	EX/AES/196/12	MOLLA	FENTAW	AYELE		AUTO ENGIN SERVICING	IV	922608442
206	EX/AES/199/12	NURYE	HUSSEN	YIMAM		AUTO ENGIN SERVICING	IV	919373963
207	EX/AES/201/12	SEID	ENDRIS	HUSSEN		AUTO ENGIN SERVICING	IV	910544968

### Annex 3: List of Employers

R.N.	Name of Company/Industry/Firm	Address
1	Tikur Abay S.C.	Kombolcha
2	Jemal Ayalew General Vehicle Maintenance	Kombolcha
3	ዉሃ ሥራ ኮንስትራክሽን	Kombolcha
4	Ali Mohamed Garage	Kombolcha
5	EEU (መብራት ሀይል)	Kombolcha
6	BGI Kombolcha	Kombolcha
7	AMARA PPBags and Plastic Factory PLC	Kombolcha
8	Kombolcha Textile S.C.	Kombolcha
9	ዋልያ ኮርኪ ፋብሪካ	Kombolcha
10	Amhara PP	Kombolcha
11	Carvico	Kombolcha
12	ዋልያ ኮርኪ ፋብሪካ	Kombolcha
13	Textile Company	Kombolcha
14	Argoba Special Woreda Agriculture Office	Senkele
15	Kalu Woreda Agriculture Office	Kombolcha
16	Tenta Wored Agriculture Office	Tenta
17	Mekdela Woreda Agriculture Office	Mosha
18	Dawa Chefa Woreda Agriculture Office	Chefa Robit
19	Ethiopian Road Administration	Kombolcha
20	Kombolcha Polytechnic College	Kombolcha
21	Amhara Water Works Construction	Kombolcha
22	Gumruk Commission	Kombolcha
23	Kombolcha City Municipal Office	Kombolcha
24	Kombolcha Industrial Park	Kombolcha
25	Kombolcha Polytechnic College	Kombolcha
26	Kombolcha General Hospital	Kombolcha
27	Kombolcha Municipality Water Supply and Sewerage Office	Kombolcha
28	Amhara Water Works Construction Enterprise	Kombolcha