



International  
Labour  
Organization

PROSPECTS



## **Differentiated Unit Cost for Assessing Prior Learning in Kenya**

### **Draft Final Report**

**International Labour Organization**

**16<sup>th</sup> December, 2022**

## TABLE OF CONTENTS

TABLE OF CONTENTS-----	ii
LIST OF FIGURES AND TABLES -----	iv
ABBREVIATIONS AND ACRONYMS-----	v
DEFINITION OF TECHNICAL TERMS-----	vii
EXECUTIVE SUMMARY-----	ix
1. INTRODUCTION-----	1
1.1. History of RPL-----	1
1.2. Strategic Objectives of Determining DUC for Prior Learning Assessment-----	3
1.3. Rationale for Determining DUC for Prior Learning Assessment-----	4
1.4. Overview of the RPL Process -----	4
2. RPL COSTING AND FINANCING MODELS FROM OTHER COUNTRIES-----	7
2.1. Overview -----	7
2.2. RPL Regulatory Structures -----	7
2.3. RPL Costing in Other Countries -----	8
2.4. RPL Cost Centres -----	10
2.5. RPL Direct and Indirect Costs-----	12
2.6. RPL Financing Models -----	13
2.7. RPL Revenue Sharing and Approaches -----	14
2.8. RPL Cost Saving Measures -----	15
3. RPL STAKEHOLDERS-----	17
3.1. Overview-----	17
3.2. Categories of RPL Stakeholders in Kenya -----	17
4. RPL ASSESSMENT COSTING PROCESS-----	23
4.1. Principles of RPL Assessment Cost Estimation -----	23
4.2. The Costs of RPL Assessment-----	23
4.3. RPL Assessment Cost Centres and Activity Cost Drivers-----	24
4.4. Assumptions of the DUC for Prior Learning Assessment-----	27
5. METHODOLOGY -----	28
5.1. Conceptualization -----	28
5.2. Population-----	30
5.3. Sample and Sampling Design-----	31
5.4. Data and Data Collection-----	32
5.5. Data Analysis and Presentation-----	33
6. FINDINGS-----	35
6.1. Introduction -----	35
6.2. Overview of the DUC for Prior Learning Assessment Data Challenges-----	35
6.3. The Differentiated Unit Cost of Prior Learning Assessment-----	35
6.4. QAI and Assessment Centers Perspectives-----	47

6.5.	Employers and Industry Stakeholders Perspectives-----	48
6.6.	Employees and Employer Associations Perspectives-----	49
6.7.	RPL Candidates Perspectives-----	49
6.8.	RPL Revenue Sharing-----	50
6.9.	RPL Sources of Funding-----	52
6.10.	RPL Assessment Cost Saving Measures-----	54
7.	CONCLUSION AND RECOMMENDATION-----	57
7.1.	Summary -----	57
7.2.	Conclusion-----	58
7.3.	Recommendations-----	60
	REFERENCES-----	62
	APPENDICES-----	64

## LIST OF FIGURES AND TABLES

Figure 1.1: RPL Process Flow Chart-----	5
Figure 3.1: RPL Institutional Structure in Kenya-----	17
Table 3.1: RPL Stakeholders in Kenya and their Responsibilities-----	18
Table 4.1: RPL Cost Centres, Activities and Drivers -----	25
Table 5.1: RPL Assessment Cost Accumulation Template-----	29
Table 5.2: QAIs in Kenya-----	30
Table 5.3.: Sample Size-----	31
Table 5.4: Data and Data Collection Instruments-----	32
Table 6.1: Weighted Average Cost of Prior Learning Assessment Activities-----	36
Table 6.2: Successive Period Operating Costs-----	37
Table 6.3: Inter-Year Changes in Costs and Student Enrolment Numbers-----	38
Table 6.4: Changes in Cost Contribution Ratios Based on Fees Charged-----	39
Table 6.5: Apportionment of Variable Costs to Qualification Levels -----	40
Table 6.6: Change in Student Enrolment Ratios-----	42
Table 6.7: Average Variable Cost per Qualification Level -----	43
Table 6.8: Absorption of Fixed Costs into Assessment Based on Assessment Time-----	45
Table 6.9: Unit Cost of Assessment of Formally Trained Candidates-----	46
Table 6.10: DUC Matrix for Prior Learning Assessment-----	47
Table 6.11: Revenue Sharing Formula Based on Prior Learning Assessment Costs-----	51
Table 6.12: Revenue Sharing Formula-----	52

## **ABBREVIATIONS AND ACRONYMS**

ABC	:	Activity Based Costing
AC	:	Activity Costs
ACD	:	Activity Cost Drivers
AFV	:	Agriculture, Forestry, Fisheries and Veterinary
AHK	:	Delegation of Germany Industry and Commerce for Eastern Africa
APEL	:	Accreditation of Prior Experiential Learning
BAL	:	Business Administration and Law
CAPLA	:	Canadian Association for Prior Learning Assessment
CDACC	:	Curriculum Development, Assessment and Certification Council
CLE	:	Council for Legal Education
COTU	:	Central Organization of Trade Unions
CUE	:	Commission for University Education
DUC	:	Differential Unit Costing
EBK	:	Engineers Board of Kenya
EDU	:	Education
EMC	:	Engineering, Manufacturing and Construction
ESQAC	:	Education Standards and Quality Assurance Commission
FBO	:	Faith Based Organization
FC	:	Fixed Costs
FITA	:	Flooring Industry Training Association
FQF	:	Formal Qualifications Fees
HAW	:	Health and Welfare
HELB	:	Higher Education Loans Board
HRMPEB	:	Human Resource Management Professional Examinations Board
HSS	:	Humanities and Social Sciences
ICT	:	Information and Communication Technologies
ILO	:	International Labour Organization
IMF	:	International Monetary Fund
INR	:	Indian Rupee
ISCED	:	International Standard Classification of Education
KASNEB	:	Kenya Accountants and Secretaries National Examinations Board
KISM	:	Kenya Institute of Supplies Management
KNDI	:	Kenya Nutritionists and Dieticians Institute
KNEC	:	Kenya National Examinations Council
KNQA	:	Kenya National Qualifications Authority
KNQF	:	Kenya National Qualifications Framework
Ksh	:	Kenyan Shilling
KUCCPS	:	Kenya Universities and Colleges Central Placement Service
LLL	:	Lifelong Learning
LSK	:	Law Society of Kenya
NARD	:	National Applicants Records Database
NCDF	:	National Constituency Development Board
NCK	:	Nursing Council of Kenya

NITA	:	National Industrial Training Authority
NSQF	:	National Skills Qualifications Framework
NZQA	:	New Zealand Qualifications Authority
PL	:	Prior Learning
PMKVY	:	Pradhan Mantri Kaushal Vikas Yojana
POE	:	Portfolio of Evidence
QAI	:	Qualification Awarding Institution
RPC	:	Revenue per RPL candidate
RPL	:	Recognition of Prior Learning
SANQF	:	South African National Qualifications Framework
SAQA	:	South African Qualifications Authority
SJI	:	Social Sciences, Journalism and Information
SMS	:	Natural Sciences, Mathematics and Statistics
SSAC	:	Sector Skills Advisory Committee
STEM	:	Science, Technology, Engineering and Medical Sciences
TCU	:	Tanzania Commission for Universities
TOR	:	Terms of Reference
Tsh	:	Tanzanian Shilling
TVET	:	Technical and Vocational Education and Training
UNESCO	:	United Nations Educational, Scientific and Cultural Organization
UNHCR	:	United Nations High Commission for Refugees
UNICEF	:	United Nations Children's Fund
USA	:	United States of America
VETA	:	Vocational Education and Training Authority
VQ	:	Vocational Qualification
VT	:	Vocational Training
WB	:	World Bank
ZAR	:	South African Rand

## DEFINITION OF TERMS

- Activity Based Costing** : In line with Drury (2013), activity-based costing (ABC) is a method of assigning overhead and indirect costs like administrative expenses, to products and services (like for the case of RPL assessment). The ABC system of costing is based on activities (events, units of work, or tasks with a specific goal).
- Cost Centre** : An activity, department, function, service or product where or on which costs are incurred and accumulated and need to be accounted for (Drury, 2013).
- Differential costing** : This is taken as the method of cost determination that is based on the differences in activities undertaken under various service provision alternatives. It relates to the cost difference between two or more alternatives of service provision that goes beyond the common costs among the alternatives as provided by the same service provider.
- Fixed Costs** : Costs that remain constant within a relevance range of activities that are being undertaken within a period of time irrespective of the volume of activities taken. Such costs are often based on time within the relevant range of activities as opposed to the number of activities (Drury, 2013).
- Formal Learning** : Formal learning is the acquisition of knowledge and skills which takes place as intended within formally constituted educational institutions such as schools, colleges, universities and training centres and it typically follows a prescribed framework (such as the one prescribed by the KNQF).
- Informal Learning** : Informal learning refers to learning that occurs away from a structured, formal classroom environment. Informal learning comes in many forms, including viewing videos, self-study, reading articles, participating in forums and chat rooms, performance support, coaching sessions and games.
- Non-Formal Learning** : Non-formal learning takes place outside formal learning environments but within some kind of organizational framework. It arises from the learner's conscious decision to master a particular activity, skill or area of knowledge and is thus the result of intentional effort.
- Period Costs** : These are expenses that are incurred on the basis of time as opposed to the provision of services or production that takes place in the course of that time

i.e., the non-product/service costs which typically appear below gross income in a typical income statement. They are typically fixed costs such as rent, salaries and other administrative costs (Drury, 2013)

- Prior Learning** : Prior learning means knowledge, skills, or competencies acquired through formal or informal education outside the traditional postsecondary academic environment.
- Setup Costs** : These are the initial costs of coming up with systems, structures, processes, policies and programs and getting a system operational. Setup is usually cost intensive and incorporates both explicit costs and opportunity costs to all the stakeholders involved in the setup process
- Variable Costs** : These are direct expenses that are incurred in the provision of services or production and usually change in line with the volume of services provided (like the number of RPL certifications offered) and can be controlled at the various service centres.

## EXECUTIVE SUMMARY

While keeping an eye on the dynamism of the skills in the work environment in Kenya, across the region and globally, Kenya's strategic objectives as envisioned in Vision 2030 and as per the Big 4 agenda are hinged upon a qualified and skilled workforce. The skills acquired through formal training can be supplemented by those acquired through prior learning. It is the second category which is not yet fully formalized in skill recognition that is the concern of this assignment. The unrecognized but competent skilled individuals that are described as those with prior learning and include prior learning gained through either informal and non-formal settings. It is for this group that there calls for the need Recognition of the Prior Learning (RPL) and it is on the background of this that this assignment is undertaken to establish the differentiated unit cost (DUC) of recognizing prior learning.

This report is divided into seven sections. Section 1 serves to provide the history and rationale for RPL assessments not only in Kenya but also across the globe. The section also rationalizes the need to have an accurate basis of determination of the unit cost of RPL assessment on the basis of which the variety of RPL stakeholders can make their respective cost, revenue funding and other decisions. The section reviews the RPL process in Kenya and concludes with specifying the objectives of the assignment.

Section 2 provides RPL experience in general and with a focus on costing the RPL assessment in particular using countries from across the globe. It relies on Tanzania, South Africa, India and Australia as cases for RPL best practices. The section helps establish regulatory practices, funding approaches, revenue sharing strategies and costing structures in existence. Stakeholder mapping is done in section 3 to identify and pinpoint and role of various stakeholders in the RPL process in Kenya and their effect on RPL costs, revenues and funding possibilities.

Section 4 provides information with respect to the RPL cost assessment and accumulation. It underpins the relevance of RPL unit assessment cost as well as the underlying principles and assumptions on which such differentiated cost determination is to be based on. It is on the basis of these principles that the cost estimation model is established. The section also provides the process by which cost accumulation is to be done and establishes the mechanism of identifying the RPL cost centres, cost centre activities and the potential cost drivers to be incorporated in the RPL assessment cost determination process.

In section 5 is presented the methodology to this assignment. It explains the conceptualization of the approach to DUC for prior learning assessment determination from the existing framework in Kenya. It not only provides the population of stakeholders from which data is collected but also how the sampling for data collection is done. It specifies the data necessary for RPL cost estimation both from primary and secondary means while simultaneously identifying the data analysis methods necessary for establishing the RPL assessment cost estimation matrix. The revenue sharing method is also provided.

Section 6 provides the findings in terms of the DUC for prior learning matrix; the revenue sharing formula; the cost saving approaches and the RPL funding options available. It also details the perspectives of RPL stakeholders including QAIs, RPL assessment centres, RPL candidates, industry stakeholders as well as employee organizations. All the foregoing issues are summarized in section 7 where recommendations stemming from the encountered limitations are provided for future improvements on the costing of the RPL assessment process.

## **1. INTRODUCTION**

### **1.1. History of RPL**

Countries across the world have increasingly realized the importance of main-streaming the skills and qualifications acquired through informal and nonformal means as well as unrecognized skills acquired through other formal means (ILO, 2018). This is in line with the understanding that learning and skill-acquisition is a life-long process. Conrad (2008) asserts that while RPL has gained momentum in the late stages of 20<sup>th</sup> Century, it is in fact rooted in ancient philosophies that recognize learning as the outcome of life-long experiences.

Werquin (2010) notes that as far back as the 1920s, Iceland was more accommodative of experiential qualifications from professional sectors than from academic settings. The formalization of RPL has however been more recent owing to emergent social and demographic dynamics of the world. Its acceptance by several countries the world over has increased since 1972 when the United Nations Educational, Scientific and Cultural Organization (UNESCO) formally adopted the concept of Lifelong Learning (LLL) following the publication and approval of Faure Report.

In the United Kingdom, RPL took off in 1980 following the accreditation of Prior Experiential Learning- APEL; the 1970s in USA and Spain; 1994 in South Africa; 1993 in Mexico and 1994 in Canada (Werquin, 2010). In India, RPL was adopted in 2012 following the Belem Framework for Action at the 6<sup>th</sup> International Conference for Adult Education (CONFINTEA VI) in Brazil in December 2009 and falls under the National Skills Qualification Framework (NSQF). It was operationalized in 2015 after the launch of the Skill India Mission and under its flagship scheme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and implemented by the National Skill Development Corporation which is the strategic implementation and knowledge partner of the Ministry of Skill Development and Entrepreneurship-MSDE (PMKVY, 2022).

The East African region has been a somewhat late entry into adopting the RPL programs. Implemented under the Skill-up program of Norway, Tanzania launched the RPL program in 2014 and by 2015, had certified 5 occupations in 4 of the country's 25 regions. In 2016, Vocational Education and Training Authority (VETA), with the technical assistance from ILO, helped to develop assessment tools and to train assessors of RPL candidates. The nascent

program in the country is rapidly expanding the same way the rest of the nations in the East African regional trading block are taking up the RPL processes.

Despite the variations in the historical adoption of the RPL certification processes, there are various rationalizations for the adoption of RPL process by various countries that converge towards a common purpose of formalizing skills acquired through informal, non-formal and alternative formal means. Firstly, is the need to enable populations to transition from the informal economy to the formal economy. In a country like India where majority of the workforce is informal sector, PMKVY (2022) notes that the government agenda rooted in the skill, re-skill and up-skill mantra aims at formalizing this informally and non-formally skilled workforce to enable their mobility to all sectors of the economy. This is an objective pursued by a large number of developing countries whose work-force demographic attributes are similar to that of India.

Secondly, is to take care of the increasing geographical mobility of people, which has to go hand in hand with geographical mobility of skills and labour. People are increasingly migrating from their home areas to other locations through forced circumstances like civil strife or merely as a means of seeking out for better economic opportunities. RPL is a prime avenue for enabling such immigrants to utilize their skills for gainful engagement while simultaneously contributing towards the economies of their adopted countries as well as their countries of origin through diaspora remittances.

Thirdly, is the need to enhance employability of people with skills acquired informally and non-formally. That evidence of skills through certification is often required while seeking out opportunities implies that RPL certification increases the chances of upward mobility towards better employment opportunities. This is especially useful in countries like South Africa where a majority of the population has been marginalized through previous segregation policies. Certification through RPL is a quick means to healing the inequalities brought about through such apartheid policies as articulated by Alexander et al. (2011). This is in addition to the new reality that RPL programs are adopted by nations as a means of aligning the competencies of their pre-existing workforce to the standardized skills qualification frameworks. The increasing standardization of skills required for specialized occupations and trades has ensured that learning outcomes can be evaluated not only in a formal setting but also in an informal one given that in a

standardized set-up, the qualifications frameworks easily identify the set of skills required to perform particular tasks.

Lastly, RPL is rationalized on the need for facilitating of credit transfer in the continuous life-long learning among various qualifications cadres. Academic institutions especially in developed countries like Canada and Australia as well as emerging ones like South Africa have incorporated RPL as a means to earning academic credits for some of the units required towards defined academic and other qualifications. With this, individuals are saved from repeat learning and thereby not only save costs, but also save time in the pursuit of their various academic and professional qualifications. This serves as a big motivation towards encouraging individuals to acquire various professional and academic certifications and improves efficiency in the deployment of resources in these pursuits both for the candidates and the governing authorities.

In Kenya RPL has been adopted to promote formalization of skills that are abundant in the informal sector while simultaneously empowering the over 600,000 refugees and migrants in the country. This is because about 83% of the Kenyan labour force is employed in the informal sector which points towards the skills that have been acquired without the corresponding formal qualifications (FKE, 2019)

## **1.2. Strategic Objectives of Determining DUC for Prior Learning Assessment**

The strategic objectives of determining DUC for prior learning are to:

- i. Analyze the current assessment and certification cost in formal qualifications;
- ii. Assess the different systems of determining DUC for assessing prior learning;
- iii. Determine the cost centers and elements in RPL Assessment process based on the RPL Policy Framework and the Implementation Guidelines;
- iv. Identify the unit cost of RPL assessment in different qualifications levels and types;
- v. Determine a revenue sharing framework between the RPL stakeholders;
- vi. Identify viable sources of funding for RPL in Kenya drawing some examples from other countries; and
- vii. Identify viable approaches to cost savings in RPL assessment and certification process.

### **1.3. Rationale for Determining DUC for Prior Learning Assessment**

The overall objective of determining DUC for prior learning assessment is to ensure an adequate, predictable and sustainable costing, financing and revenue sharing mechanisms in order to guarantee an effective RPL in Kenya. The specific rationalizations for establishing DUC for assessing prior learning includes:

- i. Determining cost elements for the RPL process for candidates;
- ii. Guiding implementing agencies in terms of cost and revenue sharing;
- iii. Providing a basis for a reliable and sustainable financing of RPL programs in Kenya;
- iv. As a source of accurate information for policy decision making for RPL in Kenya.

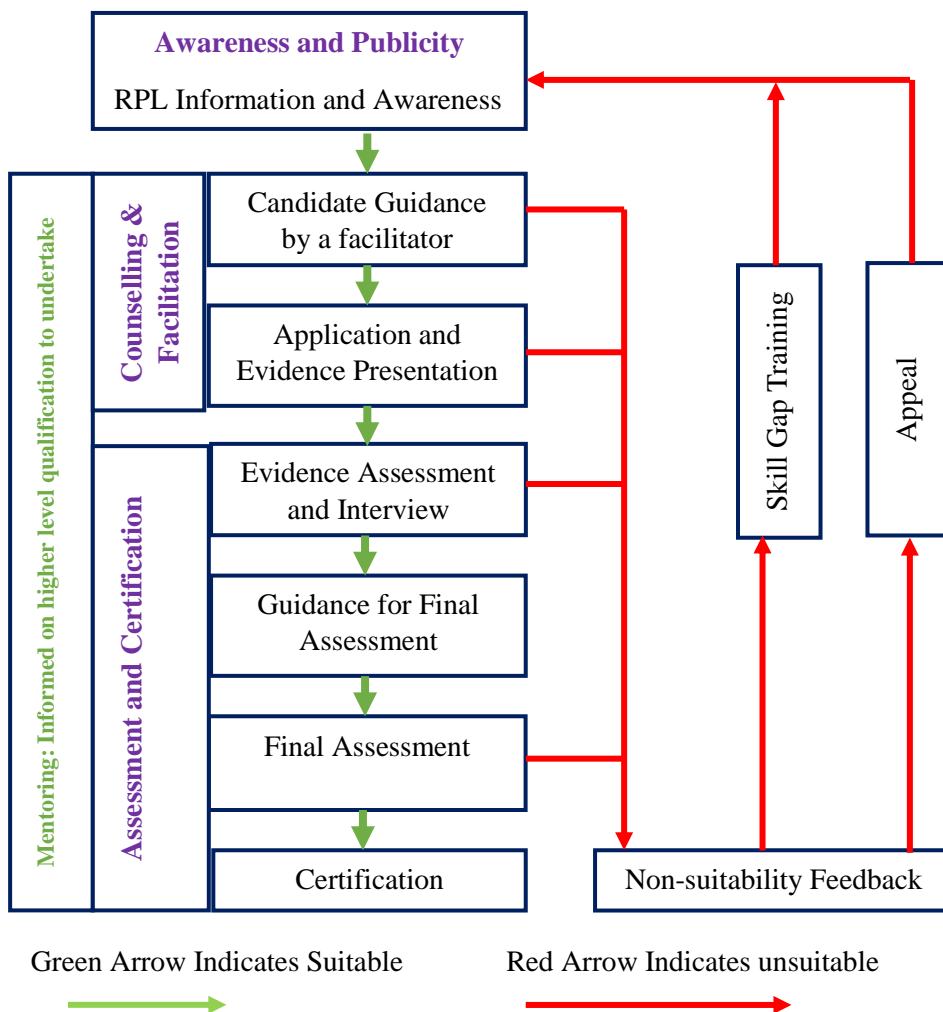
### **1.4. Overview of the RPL Process**

According to KNQA (2022), Recognition of Prior Learning (RPL) is the process that is used to identify, access and certify an individual's knowledge, skills and competencies acquired in non-formal or informal learning, such as work or life experiences, against prescribed standards or learning outcomes. In essence, RPL is a method of assessment leading to certification that considers whether candidates can demonstrate the knowledge, understanding and skills already possessed through alternative formal, non-formal and informal means.

Accordingly, RPL is a means to formalization and mainstreaming of the skills acquired from different formal, informal and non-formal settings. According to the Kenya National Qualifications Framework (KNQF), the RPL process involves three key expectations:

- i. Identifying the qualifications, unit standards or learning outcomes for which a candidate believes they meet the requirements;
- ii. Matching a candidate's knowledge, skills, and competences with the specific requirements; and
- iii. Assessing a candidate using appropriate forms of assessment.

These expectations of the RPL assessment are accomplished through the stages of the RPL process as reflected in figure 1.1 that is the generic RPL flow chart for RPL in Kenya.



**Figure 1.1: RPL Process Flowchart**

At the primary level there are three stages in the RPL process. At each of these stages is an assessment for suitability for RPL candidature. The candidate is allowed to move to the next state if found suitable. If not suitable, feedback is given upon which a determination is made on the existing skills gap and the necessary training needed to meet the requirements. If a candidate does not agree with the provided assessment, an appeal mechanism is put in place. The stages in the RPL process are explained as:

### **i. Awareness and Publicity**

This is done by the implementing agencies and providers (through various media including social media, electronic media, print media, workplaces, education institutions, fairs, and the like) and involves sensitizing stakeholders (potential candidates, employers and other players) to make them aware and build interest in the RPL process and output. The issues that require awareness and publicity include: the RPL process itself; the eligibility and related criteria; the assistance resources available; the contact process and office; the benefits of RPL certification as well as the related costs of the process

### **ii. Counseling and Facilitation**

Counseling and facilitation make the candidates aware of how the RPL process will help them understand and reflect on their achievements. They are also equipped with the tools and support to undertake the exercise. The support should have elements of consistency, transparency, fairness and respect for candidate privacy. This stage has two components. Firstly, is the candidate guidance by a facilitator who explain to the candidates the RPL process. Facilitators gauge whether a candidate is suitable or not for the specified qualification and give information on the competence, standards and evidence required. Secondly is the application by the candidate and the presentation of the corresponding evidence for the knowledge, skills and competences claimed.

### **iii. Assessment and certification**

At this stage of the RPL assessment process there are four components:

- a) **Candidate assessment and interview:** an assessor evaluates the application alongside the supporting evidence upon which an interview is carried out to authenticate suitability and evidence.
- b) **Candidate guidance for final assessment:** this is aimed at guiding the candidate on the expectations of the final assessment and steps needed to improve the evidence of the skills and competences possessed.
- c) **Final assessment:** This is done by a panel of three RPL practitioners (an industry expert, a training expert and an RPL expert). The assessment depends on the nature of the competences and skills under assessment. According to KNQF, RPL assessment can be

through interviews; challenge examinations; assignments or projects; demonstrations of skills; validation of previous qualifications and/or a combination of the above.

- d) Certification:** This involves crediting a candidate for skills, knowledge and experience attained by the QAIs and providing the necessary certificate for that qualification.

## **2. RPL COSTING AND FINANCING MODELS FROM OTHER COUNTRIES**

### **2.1. Overview**

This section gives an overview of the RPL processes from various countries including South Africa, Tanzania, India and Australia. The section focuses on regulatory frameworks, cost of implementing RPL, RPL financing models and the respective revenue sharing and RPL implementation cost saving approaches.

### **2.2. RPL Regulatory Structures**

Countries have RPL regulatory structures that align with their country-specific needs and in the context of regional and global skill recognition requirements. The regulations relate to the legal orientation of the RPL process, the categories of RPL qualifications, the regulatory bodies in the RPL process, the inbuilt checks and balances for quality assurance, the target populations for the RPL certifications, the qualifications standards, the costing of the RPL process, the roles and responsibilities of the various RPL stakeholders as well as the RPL implementation processes.

In South Africa, the RPL process is regulated by the South African Qualifications Authority (SAQA) and is based on the South African National Qualifications Framework (SANQF). The system establishes two objectives of RPL. These are firstly, RPL for access to provide access route into programmes of learning, professional designation, employment and career progression. Secondly, RPL leads to award of part or full qualification.

According to SAQA (2019), three categories of frameworks are used in guiding the RPL process. The first one is the General and Further Education and Training Sub-Framework (GFETQSF), which deals with levels 1 to 4 qualifications of the national qualifications framework (NQF). The second one is the Higher Education Qualifications Sub-Framework (HEQSF) which integrates all the higher education qualifications to the NQF. Finally, is the Occupational Qualifications Sub-Framework (OQSF) which facilitates the development and registration of quality assured occupational and trade related qualifications from the NQF from levels 1 to 8. These frameworks guide the RPL certification across all the 10 qualifications levels that range from Doctors' degree (level 10) to Elementary occupations in levels 1 and 2 with the rest relating to managers, professional, associate professionals and skilled trades (SAQA, 2019).

In Tanzania, RPL is implemented by the Tanzanian Vocational Training Authority (VETA). It has also been implemented at Universities through Tanzania Commission for Universities with RPL Examination serving as an entry level requirement to universities. It is identified as one of the two modes of apprenticeship: “Beyond RPL” and the “Dual Apprenticeship Programme”. Under VETA, RPL is focused on individuals working at operational also called artisan level. In the formative stages, RPL is provided under collaboration with ILO and funding from Norway.

In India, RPL is recognized under the National Skills Qualification Framework (NSQF) and is run by the Skill India Mission and under its flagship scheme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and implemented by the National Skill Development Corporation which is the strategic implementation and knowledge partner of the Ministry of Skill Development and Entrepreneurship -MSDE (PMKVY, 2022). A similar arrangement obtains in Australia where RPL assessment is recognized all over Australia where registered training organizations (RTOs) deliver nationally recognized training in the VET sector. To deliver this training, they obtain approval from the Australian Skills Authority (ASQA). Two categories, the funded RPL and the non-funded RPL run in Australia.

Further analysis of countries like Canada and France reveals that the implementation of the RPL programs is decentralized to regions and states although there are concerted efforts at centralized coordination like in the case of Canada where the RPL agenda in Canada is championed by the Canadian Association for Prior Learning Assessment (CAPLA). CAPLA membership includes adult learners, PLAR practitioners, researchers, employers, labour academic and training institutions, government, occupational bodies, settlement and integration organizations, NGOs (non-governmental organizations) and industry councils. In France, RPL is recognized by the National Qualifications Framework (RNCP) and the Ministry of Labour, Employment and Social Dialogue. RPL in France is concerned with three kinds of qualifications. These are those acquired through National Education (degrees and diplomas); those offered by other government ministries and industry as well as vocational qualifications given by specific economic sectors (certificate of vocational qualifications).

### **2.3. RPL Costing in Other Countries**

An examination of a cross section of RPL systems across the globe does not give a clear explanation on how RPL costs and the related fees are arrived at. Literature review reveals that

there are variation of costing approaches ranging to flat fees, fees as a percentage of the formal qualifications and a variable fee based on industry, program and qualifications awarding institutions.

In South Africa SAQA recommends that the cost of RPL services and assessment should not exceed a full-time face to face programme, especially where such services are integrated into the existing infrastructure. Accordingly, the fees charged to RPL candidates is variable and dependent on the institution and industry in which the RPL certification is sought so long as it has the upper limit as the cost of the formal certification. The Flooring Industry Training Association (FITA) for instance, awards a Certificate of Achievement of the Construction, Education and Training Authority (CETA) after an applicant completes a one-day RPL assessment for installers. RPL assessment normally costs ZAR. 4,750.00 (USD 270.75) per person. If a candidate is sent by companies registered with FITA, the RPL assessment is free. For the Institute of Training Estate Agents, the fees is pegged at ZAR.3,650 (USD 204.40) for level 4 qualifications and ZAR 4,450(USD 249.20) for level 5 qualifications. At the University of Johannesburg, there is an APL application fee of ZAR 200 (USD 11.20) in addition to an RPL assessment fee equivalent to the relevant module for which an RPL request has been submitted. There are two approaches to funding RPL in South Africa. These are government funding and private funding through employer driven initiatives.

In Canada, the fees charged is dependent on individual colleges and RPL certification providers. While some charge on a percentage basis (Like Saskatchewan that charges 75% of tuition fees and Coast Mountain College which charges 50% of tuition fees), others charge the fees similar or equal to the regular tuition fees (like College of the Rockies). In addition, some others use some exclusion criteria like membership or non-membership to a professional body to levy the RPL fees (like the Supply Chain Institute). It costs \$84 (USD 63) per course challenge at Humber College. At Red River Polytechnic, it costs \$105 (USD 78.75) for courses of up to 20 learning hours, \$210 (USD 157.50) for courses lasting between 21 and 60 hours and \$350 (USD 262.50) for courses exceeding 60 hours. At Norquest College, it costs 50% of the tuition fees plus a \$25 (USD 18.75) charge considered as administration fees.

In India, the cost is borne by the government but information with respect to differential unit costing of RPL credits is not available. The fees paid by the government per student ranges from

INR 1,200 (USD 15.6) for online RPL to INR. 2000 (USD 26) for RPL undertaken in training camps. Candidates who successfully get certified through RPL are given an INR.500 (USD 6.5) cash reward as well as three-year accident insurance cover. These two are awarded by the Indian government in order to motivate a vast majority of skilled employees in the informal sector (over 90% of the labour force in the country) to formalize skills through RPL certification.

In Tanzania, the RPL system run through Vocational Education and Training Authority (VETA) is fully funded by the government. This is done through direct exchequer funding through the vocational training centres in which RPL is undertaken. There is limited information on the amount the government allocates to the RPL process. In the Vocational Training sector, RPL is fully financed by the government through the annual VETA budgetary allocations. In the university sector RPL candidates pay a flat rate of Tsh.150,000 (USD 64.5) for RPL examinations (Mihyo, Mmari & Msami, 2020).

The foregoing analysis of the cross section of countries provides the following findings:

- i. There is limited information as to the building blocks in the RPL costing;
- ii. There is limited information on the relevant cost centres and activity cost drivers in those centres involved in the RPL assessment process;
- iii. The countries have formalized processes that describe the steps that are undertaken before an RPL certification is issued. It is possible to derive the cost centres and RPL activity cost drivers by analyzing these assessment processes.
- iv. Some governments fully fund the RPL process while others have a system in which the candidates fully finance the process by paying RPL assessment fees. In other countries there is a mixture of government financing and private sector financing through employer efforts.

## **2.4. RPL Cost Centres**

The cost of RPL assessment of candidates is dependent on the activities that are undertaken right from awareness and publicity of the RPL process to assessment and certification of the RPL candidate. The RPL process is largely a consolidated process with roughly similar steps across the world. They involve three major stages of Awareness and Publicity; Counseling and

Facilitation and lastly Assessment and Certification. Every country however tailors the RPL process with modifications depending their national philosophy and objectives. In South Africa for instance, remediation and reassessment are included as part of the RPL process for candidates with skills gaps. In addition to this, there are included internal moderation and external moderation of the RPL results by moderators. In Tanzania, post-assessment training, apprenticeship and examinations are included as part of the RPL process and so is moderation of RPL results by regional coordinators. In Canada, credit acknowledgement and review of career and education or training plan are added onto in the RPL assessment process. In India, there is a stage of orientation that is incorporated in the RPL process and it comes in immediately after the counseling and pre-screening stages. It also has a stage that involves kitting the RPL candidates upon acceptance to the program.

Deriving from the activities required in the RPL certification process are the cost centres in which these activities are carried out and in which RPL costs are incurred. From the analysis of the RPL activities in the four countries under review, the general cost centres that apply in all systems are identified as:

- Publicity and Awareness;
- Application and Screening;
- Pre-Assessment meetings and workshops between advisors and candidates;
- Assessment by assessor;
- Internal moderation of assessments;
- External moderation of assessments;
- RPL assessment and reporting;
- Certification and feedback;
- Appeals processing;
- Monitoring and Evaluation; and
- Quality Assurance measures.

Outside of these generic cost centres, countries often have additional customized RPL processes that add new cost centres to the prior learning assessment process. In Tanzania for instance, there is Post Pilot assessment Practice; Moderation of Assessments by regional office moderators and Final Examination as additional cost centres that are derivable from their RPL process. In India,

the additional derivable cost centres include RPL Kitting; Bridging; Pretesting; Candidates Orientation; Cash rewarding of successful candidates; 3-year accident insurance for successful candidates and Self-assessment.

## **2.5. RPL Direct and Indirect Costs**

RPL direct costs are attributable to the activities undertaken in the RPL assessment and certification process. Indirect costs/overheads are instrumental in implementing the RPL process in general but cannot directly be attributed to a specific candidate or activity (Drury, 2013). These costs are invariably referred to as variable costs (VC).

Since the cost drivers are similar in all regulatory environments, the relevant direct costs include the costs of:

- The application and screening;
- Paying to advisors, facilitators and coordinators;
- Pre-assessment workshop activities;
- Equipment and materials;
- Candidate assessment and the pay attributable to assessors;
- Cost of moderation, and
- Cost the cost of RPL certification.

In India, there are additional costs including the cost of:

- Pre-RPL training (this applies to Tanzania as well),
- Kitting the RPL candidates
- Cash and insurance rewards for successful RPL candidates after completion of the process.

The second category of costs that are routinely incurred in the process of implementing RPL processes are the indirect costs or RPL overheads. These costs are not explicitly disclosed in the cost and fee structures of the QAIs in various regulatory environments. They can however be derived from the cost centres identified in section 2.4 because from their very nature, they are incurred at the RPL administrative level and can only be absorbed to the unit cost of RPL credit

through some form of cost absorption. Culminating from analysis of cost centres in the RPL processes, the common RPL overhead costs include the costs of:

- Administering RPL assessment centres;
- Office and administration;
- Monitoring and evaluation;
- Regulatory compliance and quality assurance;
- Administrative of the RPL certifications database;
- System administration;
- Capacity building;
- Awareness and publicity; and
- General program management.

## 2.6. RPL Financing Models

The models of financing RPL assessment are influenced by a number of factors depending on their operational environments. These include:

- i. **Respective regulatory environments:** the regulatory frameworks set out how RPL is to be financed. In South Africa for instance, the fees payable is variable but not exceeding that which is due for the formal training of similar skills for which prior learning assessment is sought.
- ii. **National philosophy and government policy:** the models should be suited for achieving the government policy which is informed by the philosophy of the country. In India for instance, where a majority of the workforce (over 90%) work in the informal sector, the government through the Skill India program, has moved to fully fund the RPL program (PMKVY, 2022).
- iii. **Level of economic advancement:** developing countries are more likely to have the government partially or fully funding the RPL programs than developed countries where funding is more likely to be by the candidates and the private sector.
- iv. **The rationale behind implementation of the RPL programs:** the financing models depend on the objectives of the country which could range from increasing mobility of

labour; lifelong learning; equity and fairness as well as accessibility to labour market opportunities.

- v. **Involvement of development partners:** the funding models adopted especially for developing countries is also dependent on the level of financial support from developing partners.
- vi. **The stage of adoption of the RPL programs:** in the initial stages of adoption, the government could fund most of the program to encourage uptake but progressively reduce the funding as the programs become widely accepted and self-sustaining.

Arising from the review of RPL practices of a cross-section of countries, the following models are currently in practice:

- i. **Government full funding:** the government bears the full cost of funding the RPL programs through the regular exchequer process. This model is operational in India as indicated by PMKVY (2022)
- ii. **Government partial funding:** the government partially finances RPL with the rest of the cost being borne by the RPL candidates. This model is operational in Tanzania. Governments may provide subsidized financing especially where they have priority areas. In Queensland, Australia for instance where RPL assessments and certifications cost between \$995 (USD666.65) and \$3,500 (USD 2.345), there exists a government subsidy through the Queensland Government subsidies programs for skilled workers in government priority areas.
- iii. **Shared funding between candidates and the private sector:** part of the prior learning assessment cost is funded by the private sector through employer groups and labour associations with the rest being borne by the candidates sometimes subsidized by the government. This model is operational in South Africa.
- iv. **Candidate full funding:** the fees is fully paid by the candidates as is the case in developed countries like Canada and Australia. There is also the option where the private sector companies, employers, sponsors and other organizations are used in sponsoring the process like in the case of Canada where the Canadian Association for Prior Learning Assessment (CAPLA) is a conglomeration of private and public sector partners.

## 2.7. Revenue-Sharing Approaches

Literature evaluation reveals that the revenue sharing programs in the financing structures generally depend on the following factors:

- i. Objectives of the government;
- ii. The level of economic development;
- iii. Support from donor partners, and
- iv. The RPL philosophy in a country.

In India, PMKVY (2022) indicates that the government fully finances the program both for the schools and the project implementing agencies (PIA) who are paid as per candidate depending on the RPL program used. (INR 2,000 for Training Camp RPL; INR 1,700 for RPL at Employers premises; INR 1,400 for RPL at RPL Centres; INR 1,200 for RPL at Best-in-Class Employers - BICE and INR 1,200 for online RPL. INR=0.013USD).

In Tanzania, the TCU (Tanzania Commission for Universities) RPL candidates are charged Tsh 150,000 (USD 64.5) of which Tsh.50,000 (USD 21.5) is shared to the regulator for the general administration of the of the RPL program while the rest amounting to Tsh.100,000 (USD 43) goes to the RPL assessment centres towards RPL assessment costs.

## 2.8. Cost Saving Measures

Just like the case of cost centres and cost determination, existing case studies do not provide information with respect to mechanisms of saving on the RPL assessment costs. It is possible to deduce from the structuring of the RPL process on mechanisms that can be used to save costs. These are identified as:

- i. **Using online RPL assessments:** this is one of the approaches of RPL assessment in India and the online assessment costs lower than the face-to-face approach. In this model, the initial set-up costs might me high, but running costs are likely to be lower due to the low costs of system maintenance.
- ii. **Encouraging RPL assessment at employers' centres:** In India, Best in Class Employers (BICE) are used as part of assessment centres.

- iii. **Encouraging prior self-assessment:** this serves to reduce the number of candidates with mismatched prior learning skills that need recognition thereby lowering the screening costs

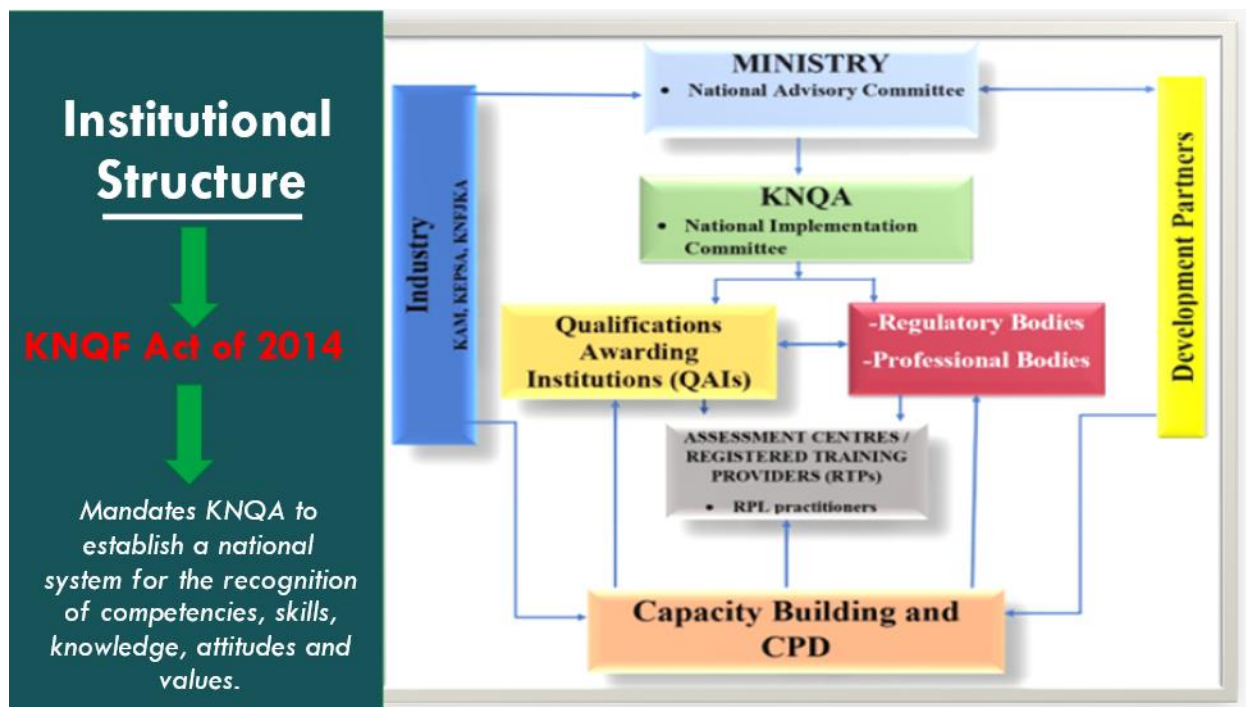
### 3. RPL STAKEHOLDERS

#### 3.1. Overview

Successful RPL systems globally adopt multi-sectoral sector-wide stakeholder involvement approach. This ranges from the governmental agencies, industry players, development partners, to the general public. The involvement ensures ownership and support of the process

#### 3.2. Categories of RPL Stakeholders in Kenya

The stakeholders in the RPL program in Kenya are established by the institutional structure of the RPL framework as identified in figure 3.1 and evaluated in table 3.1.



**Figure 3.1: RPL Institutional Structure in Kenya.**

The structure identifies the major stakeholders in the RPL program as the implementing Ministry, KNQA, the Industry, QAIs, regulatory and professional bodies, assessment centres and development partners. Other stakeholders include the RPL candidates, the employee and labour organizations as well as the general public and civil society.

**Table 3.1: RPL Stakeholders in Kenya and their Responsibilities**

<b>Stakeholder</b>	<b>Description</b>	<b>Responsibilities</b>
Government	<ul style="list-style-type: none"> <li>○ Ministry of Education</li> <li>○ Line Ministries</li> <li>○ Council of Governors</li> <li>○ Legislature and parliamentary committees</li> </ul>	<ul style="list-style-type: none"> <li>○ Formulate national RPL policies;</li> <li>○ Establish the National RPL Advisory Committee;</li> <li>○ Mobilize resources for RPL implementation;</li> <li>○ Providing financial support to QAIs;</li> <li>○ Providing financial support to the RPL candidates;</li> <li>○ Providing a conducive operational environment for implementation of RPL;</li> <li>○ Supporting regulatory framework in RPL implementation; and</li> <li>○ Supporting legal framework in RPL implementation.</li> </ul>
Kenya National Qualifications Authority (KNQA)	<ul style="list-style-type: none"> <li>○ Kenya National Qualifications Framework</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop and manage the national qualification framework;</li> <li>○ Develop, coordinate and supervise the RPL implementation process;</li> <li>○ Implement the RPL process through the National Implementation Committee (NIC);</li> <li>○ Accredite QAIs;</li> <li>○ Register qualifications and graduates;</li> <li>○ Maintain a database of all qualifications awarded through RPL;</li> <li>○ Facilitate credit accumulation, transfers and exemptions;</li> <li>○ Develop national standards for RPL assessment;</li> <li>○ Develop a national Management Information System for RPL;</li> <li>○ Provide the recognition of attainment of competencies through RPL including skills, knowledge, attitudes and values;</li> <li>○ Conduct research and outreach on RPL process in collaboration with other stakeholders;</li> <li>○ Build capacity of institutions implementing the RPL process; and</li> <li>○ Promote mainstreaming of gender and special needs practices in the RPL process.</li> </ul>
Regulatory Bodies	CUE; TVETA; NITA; ESQAC; NCA	<ul style="list-style-type: none"> <li>○ Accredite RPL assessment centers;</li> <li>○ Accredite and build capacity of RPL Practitioners;</li> <li>○ Ensure quality and relevance of the RPL process;</li> <li>○ Develop standards on RPL assessment for their respective sectors, taking into account the RPL Policy;</li> <li>○ Monitor and evaluate the implementation of RPL within the specific sector they oversee;</li> <li>○ Collaborate with KNQA and other stakeholders to advance the development of RPL;</li> <li>○ Foster close working relationships with professional bodies in and across the sector where appropriate, to facilitate RPL;</li> <li>○ Facilitate and monitor enabling agreements to increase RPL provisioning in their sectors;</li> <li>○ Support and monitor the training of RPL Practitioners and administrators in their sectors;</li> </ul>

		<ul style="list-style-type: none"> <li>○ Monitor providers that offer RPL in their sectors, in accordance with criteria established for this purpose;</li> <li>○ Ensure consistency in the application of RPL policy by providers and delegated bodies in their sectors;</li> <li>○ Conduct and oversee RPL-related research in the related sector in collaboration with KNQA; and other stakeholders.</li> </ul>
Qualification Awarding Institutions (Local and Foreign)	<ul style="list-style-type: none"> <li>○ Foreign Qualification Awarding Institutions</li> <li>○ Local Qualification Awarding Institutions</li> <li>○ Chartered Universities</li> <li>○ Institutions with Legal Notice</li> </ul>	<ul style="list-style-type: none"> <li>○ Accredit, register and build capacity of RPL Practitioners;</li> <li>○ Develop standardized RPL assessment tools;</li> <li>○ Develop RPL assessment guidelines in line with RPL policy framework and regulator standards;</li> <li>○ Organize validation of the RPL assessment tools and guidelines;</li> <li>○ Develop, review and disseminate guidelines for preparation of assessment process and preparing the materials in liaison with other stakeholders;</li> <li>○ Provide guidelines for RPL assessments and appeals;</li> <li>○ Coordinate RPL assessment processes;</li> <li>○ Update assessment data bank of trainees;</li> <li>○ Award statement of attainment, partial or full qualification; and</li> <li>○ Develop and maintain an information management system that is compatible with the National Applicants Records Database (NARD) and other relevant government information management systems.</li> </ul>
Registered assessment centers and statutory bodies	Workplaces; Registered Training Providers	<ul style="list-style-type: none"> <li>○ Provide RPL practitioners to participate in the RPL process in line with their mandate;</li> <li>○ Participate in external assessment and verification of candidates;</li> <li>○ Provide opportunities for skills gap training;</li> <li>○ Provide opportunities as assessment centers;</li> <li>○ Establish RPL management committee;</li> <li>○ Manage candidates' records;</li> <li>○ Register with relevant regulators;</li> <li>○ Integrate RPL Policy into existing institutional frameworks;</li> <li>○ Implement the RPL framework and provide feedback to stakeholders;</li> <li>○ Provide equipment for assessment;</li> <li>○ Maintain candidate records; and</li> <li>○ Encourage mainstreaming of gender and special needs practices in the RPL assessment process</li> </ul>
Development Partners	ILO; Mastercard Foundation; IRC; GIZ; UNHCR; LWFK; World Bank; Australian Embassy;	<ul style="list-style-type: none"> <li>○ Providing technical advisory in the development of the RPL Framework; and</li> <li>○ Providing financial support.</li> </ul>

	Embassy of Switzerland	
Professional Bodies and Associations	ICPAK; LSK; ERB; KETRB; PPB; Nursing Council; Kenya Maritime Authority; KMDPB; KMLTTB; APSEA; KATTI	<ul style="list-style-type: none"> <li>○ Comply with the KNQF Act for the recognition of professional bodies and the registration of professional qualifications;</li> <li>○ Recognize qualifications awarded through RPL as an integral requirement for attainments of professional designations as stipulated in the KNQF Act on the Recognition of Professional Bodies and the Registration of Professional Designations;</li> <li>○ Collaborate with KNQA, the Regulators and the relevant providers to promote a quality RPL process; and</li> <li>○ Build capacity to initiate and support RPL provision in accordance with the RPL Policy Framework</li> </ul>
Industry	KNFJKA; KEPSA; KAM; FKE; Base Titanium Mining Company; Kenya Flowers Council; Agricultural Employers Association	<ul style="list-style-type: none"> <li>○ Participate in development of Occupational Standards through Sector Skills Advisory Committees (SSACs);</li> <li>○ Participate in policy formation for the RPL process and system;</li> <li>○ Provide expert workers to participate in occupational standards and learning outcomes development as well as the assessment process;</li> <li>○ Contribute in the development and acquisition of training materials;</li> <li>○ Participate in external assessment of applicants;</li> <li>○ Provide opportunities for industry training and experience; and</li> <li>○ Participate in verification of assessment of applicants.</li> </ul>
The General Public	Faith based Organizations (FBOs); Local Communities	<ul style="list-style-type: none"> <li>○ Actively get involved in public participation in the course of institutionalizing the various aspects of RPL</li> <li>○ Allow to be sensitized about the RPL process</li> <li>○ Support the implementation of the RPL process</li> <li>○ Take advantage of the RPL process to formalize their skills acquired through informal and non-formal means</li> <li>○ Help create awareness among the non-sensitized section of the public</li> </ul>
RPL Candidate	Those with skills acquired through informal means; Those with skills acquired non-formally; Those with skills acquired through different formal means	<ul style="list-style-type: none"> <li>○ Discuss and agree on the assessment plan with assessors;</li> <li>○ Produce sufficient evidence of current competencies and of prior achievements (where applicable);</li> <li>○ Prepare their profiles and portfolio to meet the regulators of the RPL process;</li> <li>○ Prepare and make themselves available for assessment;</li> <li>○ Adhere to assessment rules and regulations;</li> <li>○ Follow appeals procedure when necessary;</li> <li>○ Be entitled to fundamental rights such as: <ul style="list-style-type: none"> <li>✓ The right to fair and transparent processes;</li> <li>✓ Have a clear understanding of the outcomes to be met, assessment standards and criteria and the certification processes;</li> <li>✓ Candidate-centered assessment; and</li> </ul> </li> </ul>

		✓ The right to appeal a decision.
RPL Practitioners	Counselors; Facilitators; Assessors; Verifiers; Coordinators	<ul style="list-style-type: none"> <li>○ Notify the candidate regarding the assessment process by the RPL Assessment Panel;</li> <li>○ Pretest the equipment and tools for assessment;</li> <li>○ Provide appropriate mediation tools for up skilling;</li> <li>○ Provide security for assessment material</li> <li>○ Be a subject matter expert;</li> <li>○ Guide the candidate on how to apply for the relevant skill area, level and competency as per the learning outcomes;</li> <li>○ Advise on portfolio of evidence collection;</li> <li>○ Verify portfolio of evidence for relevance, currency, completeness and adherence;</li> <li>○ Recommend skills and knowledge gap training;</li> <li>○ Assess the portfolio of evidence for comprehensiveness, currency, validity and authenticity;</li> <li>○ Identify gaps – skills or evidence related;</li> <li>○ Interview the candidate to ascertain the Authenticity and currency of the Portfolio of evidence;</li> <li>○ Prepare candidates for final assessment;</li> <li>○ Recommend candidate for Final (full or partial assessment), Skills upgrading, Assessment at a lower or higher level and Assessment for a different trade area;</li> <li>○ Forward documentation to the RPL Assessor once they meet the expected requirement for assessment;</li> <li>○ Advise the assessment center and the RPL practitioners on the requirements for the vulnerable and special needs persons being assessed;</li> <li>○ Organize for external assessment;</li> <li>○ Award and grade the achievement of each candidate in accordance with the QAI requirements;</li> <li>○ Ensure that Assessment is conducted within the legal frameworks;</li> <li>○ Generate a report on verification process; and</li> <li>○ Submit the report to the assessing institution and qualification awarding institution.</li> </ul>
Civil Society	Community Based Organizations; Charities; Community Foundations; Clubs; NGOs; Support Groups.	<ul style="list-style-type: none"> <li>○ Actively get involved in public participation in the course of institutionalizing the various aspects of RPL;</li> <li>○ Sensitize the community about the RPL process and opportunities;</li> <li>○ Allow to be sensitized about the RPL process;</li> <li>○ Support the implementation of the RPL process; and</li> <li>○ Help create awareness among the non-sensitized section of the public.</li> </ul>
Employers and Employer-organizations	Employers in the public sector, private sector; formal sector; informal	<ul style="list-style-type: none"> <li>○ Entrench RPL Policy into the existing employer regulations and human resource policy;</li> <li>○ Sensitize and encourage employees to apply for RPL assessment;</li> <li>○ Identify employees' skills for RPL application;</li> <li>○ Assist employees to identify appropriate training and assessment opportunities; and</li> </ul>

	sector	<ul style="list-style-type: none"> <li>○ Financially support RPL-oriented assessments.</li> </ul>
Employees	Employees in the public sector, private sector; formal sector; informal sector	<ul style="list-style-type: none"> <li>○ Advise on skills requirements for identified vocational areas;</li> <li>○ Take opportunity to exploit RPL process in order to formally validate their skills;</li> <li>○ Take opportunity to exploit RPL training opportunity in order to formally enhance their skills; and</li> <li>○ Participate in the RPL implementation advisory committee</li> </ul>
Employee organizations and labour unions	COTU; KUPPET; KNUT; UASU; Organizational based employee organizations	<ul style="list-style-type: none"> <li>○ Create awareness on RPL, its potential benefits, and build positive attitudes among the workers;</li> <li>○ Integrate RPL into the employment policy;</li> <li>○ Ensure through advocacy and policy shifts that education and training matches the needs of the labor market;</li> <li>○ Ensure active participation of employers and workers in the planning, implementation and evaluation of RPL, not only for quality but also recognition of its benefits; and</li> <li>○ Bargain with employers for up-skilling and reskilling of employees</li> </ul>

Adapted from the KNQF (2021)

## 4. RPL ASSESSMENT COSTING PROCESS

### 4.1. Principles of RPL Assessment Cost Estimation

The estimation of the Differentiated Unit Cost (DUC) of assessing prior learning is based on the following principles:

- i. **Efficiency:** The RPL process must be structured to minimize both the direct costs and the assessment system overhead costs;
- ii. **Integrity:** The certification cost must be reasonable enough to provide RPL assessment results that reflect the integrity of the recognized skills and competences;
- iii. **Adequacy:** The fees charged to the candidate should be adequate for the sustainability of the RPL process. The fees chargeable to the candidate is aimed to cover the cost of the entire RPL assessment process which include: charges for KNQA; costs of QAIs; the costs of regulators; and the costs of the assessment centres.
- iv. **Stability:** DUC for prior learning assessment must remain stable over a reasonable period of time while taking to account the fluctuations that may originate from government funding and external economic dynamics like inflation;
- v. **Economies of scale:** DUC unit cost for prior learning assessment must take to account the advantages that accrue from economies of scale and be elastic enough to become lower as a large pool of RPL candidates increasingly take on the program;
- vi. **Goal oriented:** the final DUC for prior learning assessment reinforces the broad goals of the RPL system as articulated by the Government of Kenya;
- vii. **Objectivity and verifiability:** The costs are reliant on an objective approach based on data/ figures that can be verified using the cost evaluation matrix and the activity cost drivers of the RPL assessment process.

### 4.2. The Costs of RPL Assessment

RPL assessment costs arise from the following:

- i. The cost of providing information and creating awareness of the RPL to the target audience and stakeholders in the entire certification process
- ii. The cost of facilitating and counseling the candidates

- iii. The cost of verifying the evidence gathered and presented by the candidates from the prior learning facilitators like the industry and industry-based supervisors
- iv. Cost of undertaking portfolio evaluation
- v. Cost of candidate initial assessment and interview
- vi. Cost of summative assessment of the competences of the RPL candidates. This is done by a team of at least 3 assessment experts which comprises an industry assessor; a trainer and other RPL expert (s) recommended to the team.
- vii. Costs of materials and equipment required for the assessment process
- viii. Costs associated with the appeal and dispute resolution process
- ix. The cost of certification
- x. Cost of monitoring, evaluation, review and control of the RPL system and processes
- xi. Administrative costs

The costs identified above are incurred in the various of the stages in the RPL assessment as indicated in figure 1.1, the RPL process flow chart. These costs are the explicit and implicit costs that are incurred by the RPL assessment centres, the qualifications awarding institutions (QAIs), regulators and the and the government and its agencies especially KNQA in the process of RPL assessment. The stages in the RPL assessment process therefore serve as the cost centres and the activities performed in each are identified as the activity cost drivers

#### **4.3. RPL Assessment Cost Centres and Activity Cost Drivers**

As explained in section 4.2, the stages in the RPL assessment process serve as the cost centres and the activities performed in each are identified as the activity cost drivers. Additional costs not directly involved in the stages are captured as administrative overhead costs. The cost centres and activity cost drivers in each of the cost centres are indicated in table 4.1

**Table 4.1: RPL Cost Centres, Activities and Drivers**

<b>Cost Centre</b>	<b>Cost Centre Activities</b>	<b>Cost Drivers</b>
Awareness and publicity	<ul style="list-style-type: none"> <li>○ Publicity fares</li> <li>○ Electronic media advertising</li> <li>○ Print media advertising</li> <li>○ Social media publicity</li> <li>○ Use of bill boards</li> </ul>	<ul style="list-style-type: none"> <li>○ Fairs exhibition time</li> <li>○ Advertising time</li> <li>○ Publicity man-hours</li> <li>○ Advertising space</li> <li>○ Social media influencers' time</li> <li>○ Bill board exposure time</li> </ul>
Guidance for Application	<ul style="list-style-type: none"> <li>○ Screening of potential applicants</li> <li>○ Expert evaluation of the informal and non-formal background of the applicant</li> <li>○ Expert counseling of the applicant on the RPL Process</li> </ul>	<ul style="list-style-type: none"> <li>○ Screening application materials</li> <li>○ Screening man-hours</li> <li>○ Expertise counselling man hours</li> </ul>
Application and Evidence Verification	<ul style="list-style-type: none"> <li>○ Application</li> <li>○ Verification of the applicant</li> <li>○ Verification of the evidence</li> <li>○ Evaluation of the RPL evidence</li> <li>○ Construction of PL portfolio</li> <li>○ Translation of evidence to standard form</li> <li>○ Third-party confirmations and interviews</li> <li>○ Assessment of the application</li> <li>○ Summarization of the prior learning experience</li> </ul>	<ul style="list-style-type: none"> <li>○ Evidence verification man-hours</li> <li>○ Applicant verification time</li> <li>○ Travel costs for third party confirmations</li> <li>○ Application Stationary</li> <li>○ Facilitator man-hours</li> </ul>
Guidance for final Assessment, Candidate Assessment and Interview	<ul style="list-style-type: none"> <li>○ Candidate portfolio Assessment</li> <li>○ Candidate physical interview to assess suitability for RPL and corroborate evidence</li> <li>○ Review of evidence</li> <li>○ Review of experience</li> <li>○ Preparation for final assessment</li> </ul>	<ul style="list-style-type: none"> <li>○ Evidence evaluation man-hours</li> <li>○ Expert portfolio review man hours</li> <li>○ Guidance man-hours</li> <li>○ Physical interview panel man hours</li> </ul>
Final Assessment	<ul style="list-style-type: none"> <li>○ RPL assessment interview</li> <li>○ RPL assessment practical sessions</li> <li>○ Skills review</li> <li>○ Performance tests</li> <li>○ Identification of skills gap</li> </ul>	<ul style="list-style-type: none"> <li>○ Interview man hours</li> <li>○ Assessment by Assessors man-hours</li> <li>○ Practical time in hours</li> <li>○ Skills review man hours</li> <li>○ Performance tests evaluation time</li> <li>○ Examination materials and equipment</li> </ul>

Certification	<ul style="list-style-type: none"> <li>○ Validation of the prior learning skills</li> <li>○ Provision of the actual certification</li> </ul>	<ul style="list-style-type: none"> <li>○ Printing</li> <li>○ Calligraphy</li> <li>○ Security</li> </ul>
RPL Administration	<ul style="list-style-type: none"> <li>○ Office running</li> <li>○ Overseeing RPL implementation</li> <li>○ Training of RPL assessors, advisors and facilitators</li> <li>○ RPL system administration</li> <li>○ Coordination with other RPL stakeholders</li> <li>○ Publicity</li> <li>○ Appeals and Reviews</li> </ul>	<ul style="list-style-type: none"> <li>○ Office administration man-hours</li> <li>○ Stationery and equipment</li> <li>○ Office power, water, electricity and lighting</li> <li>○ Office space and related rental per unit</li> <li>○ Publicity activities</li> <li>○ Systems maintenance</li> <li>○ Training time and machine-hours</li> </ul>
RPL monitoring, evaluation, review and control	<ul style="list-style-type: none"> <li>○ Internal audit</li> <li>○ Review of Assessment Standards</li> <li>○ Conduct of tracer studies</li> <li>○ Internal controls and checks</li> <li>○ Review of processes</li> </ul>	<ul style="list-style-type: none"> <li>○ Audit activities and time</li> <li>○ Frequency of review of assessment standards</li> <li>○ Number of tracer studies undertaken</li> <li>○ Frequency of review of processes and the related man-hours</li> <li>○ Facilitative machine-hours</li> </ul>

#### **4.4. Assumptions of the DUC for Prior Learning Assessment**

- i. The cost associated with RPL assessment has both variable (direct) costs and fixed costs (RPL overheads).
- ii. The recovery of the high start-up costs is excluded from DUC determination and is not the basis of the unit cost determination nor the subsequent fees charged to RPL candidates.
- iii. DUC for prior learning recognition is based on Activity Based Costing (ABC) and the activities performed in the RPL process.
- iv. The cost associated with RPL assessment is based on the category of skills (9 skills areas as per KNQF and ISCED frameworks- Appendix X) that are evaluated and the qualifications levels (there are 10 qualifications levels as per KNQF).
- v. The fees charged to the candidate depends on the costs incurred in the prior learning assessment process for the qualifications level and skills category.
- vi. The fees chargeable to the applicants has a direct bearing of the costs incurred in the RPL assessment process based on the services offered and is independent of the number of credits awarded.
- vii. DUC for prior learning assessment applies up to level 6 KNQF qualifications.
- viii. Initial start-up costs are excluded from the DUC for prior learning assessment.

## 5. METHODOLOGY

### 5.1. Conceptualization

The costs incurred in the RPL assessment process are identified as both fixed costs (period costs) based on existing RPL program administrative structure and variable costs (based on activities that performed in the RPL assessment process). Identification of the two categories of costs allows for differential unit costing (DUC) which by necessity relies on the principles of activity-based costing (ABC). In this costing approach, the unit costs depend on the service-oriented variable costs (VC) plus an allocation of the programme costs based on the activity cost drivers in the cost centres involved in the RPL assessment process.

The approach is multilevel taking to account a matrix that considers the following:

- i. The qualifications level for which RPL assessment is necessary. This borrows from the KNQF under which 10 levels of qualifications are listed (KNQF, 2018). Levels 3 to 6 are considered for DUC for prior learning recognition.
- ii. The skills category (KNQF and ISCED that are adopted provide form 9 qualification clusters as indicated in Appendix X)
- iii. The cost centres and activities for which this assessment is required. This is drawn from the RPL assessment activity flows as indicated in figure 1.1 and explained in section 4 of this report.

The table 5.1 provides a generic structure of the cost estimation model that is conceptualized for cost accumulation and ultimate cost estimation. In the model, there are 6 stages that represent cost centres for where costs are incurred and accumulated in the RPL assessment process. These cost centres are identified from (a) to (f) in the table 5.1. In addition, the period costs which are RPL program administration costs as well as the costs of monitoring and Review including preparing RPL practitioners' capacity and related institutional capacity are captured as fixed costs. They are to be absorbed into the unit cost based on the activities undertaken while performing them in line with Activity Based Costing. This stage has costs that cut across all the qualification levels since it is cross sectional in nature.

At each of the identified cost centres are established the fixed period costs, the activity cost drivers (ACD) and the activity costs (AC).

**Table 5.1: RPL Assessment Cost Accumulation Template**

<b>Qualification Levels</b> <b>Cost Centres</b>	<b>Costs</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
a) Guidance for Application and Screening	Cost Centre Activity Cost Drivers				
	Cost Centre Activity Costs				
b) Application and Evidence verification	Cost Centre Activity Cost Drivers				
	Cost Centre Activity Costs				
c) Guidance and facilitation for Final Assessment	Cost Centre Activity Cost Drivers				
	Cost Centre Activity Costs				
d) Final Assessment	Cost Centre Activity Cost Drivers				
	Cost Centre Activity Costs				
e) Certification	Cost Centre Activity Cost Drivers				
	Cost Centre Activity Costs				
f) Period fixed Administrative Costs including Publicity and Awareness					

Fixed period costs are largely administrative costs incurred monthly or periodically to run and sustain the RPL program. Activity cost drivers are the activities that are undertaken at each of the cost centres in order to accomplish the tasks need in the RPL assessment process. They provide the direct costs. These are differential in nature based on each category of the RPL applicant and are therefore variable costs that change with respect to the number of activities carried out in the assessment process. The costs are based on the following:

- i. Comparative cost analysis from the formal sector (QAIs and other stakeholders) for which skills comparable to RPL are received,
- ii. The expected costs for RPL assessment process given the human and other capital skills needed to be applied in the process
- iii. The existing cost structures among the stakeholders offering RPL:
  - a. Assessment Centres

- b. QAIs
- c. KNQA
- d. Regulators

## 5.2. Population

The multiplicity of institutions that play a role in prior learning assessment implies that the population of the study is also multifaceted ranging from QAIs, regulators, Assessment centres, employee organizations, employer organizations, industry and RPL candidates. The first three are instrumental in gathering data about the RPL assessment unit cost and the subsequent revenue sharing while the rest provide information with respect to RPL in general and their expectations about RPL costing and funding in particular.

With respect to QAIs, the population is the 84 institutions recognized by the KNQA as indicated in table 5.2.

**Table 5.2: QAIs in Kenya**

<b>QAI</b>	<b>Level</b>	<b>No.</b>
Public Chartered Universities	3 - 10	29
Private Chartered Universities	3 - 10	27
Institutions of Interim Authority Letters	3 - 10	3
National Examination Bodies (KNEC, KASNEB, TVET-CDACC)	1 - 6	3
NITA	3 - 4	1
Professional Bodies (CLE; NCK; KNDI)	4 - 6	3
The National Polytechnics	4 - 6	10
TVET Institutions in various Ministries	3 - 6	7
Civil Aviation Authority		1
<b>Total</b>		<b>84</b>

With respect to regulatory bodies, the population is 6 including KNQA, CUE, TVETA, NITA, ESQAC and NCA. Since the assessment centres are wide and varied, the population is limited to those that have been registered by the QAIs that are already actively engaged in implementation

of RPL assessments. The population relating to industry and employers and employer organizations relates to 5 organizations being KNFJKA; KEPSA; KAM; FKE; Base Titanium Mining Company; Kenya Flowers Council; Agricultural Employers Association. In here also include professional organizations. KNQF identifies 27 professional bodies as listed in the Appendix IX while employees and employee organizations are represented by trade unions under the umbrella of COTU.

Finally, the population of RPL candidates is drawn from those enrolled in the RPL assessment centres around the country. Each of the categories of stakeholders has a specified data collection tool in order to collect stakeholder-specific RPL general and cost information. This ranges from quantitative-cost specific data that is collected through a questionnaire to qualitative data dealing with the various perceptual aspects about RPL in general and RPL costs and revenues in particular among the various RPL program stakeholders.

### 5.3. Sample and Sampling Design

The sampling design for each of the stakeholder population item is derived from the industry available information on the respective stakeholders. Since RPL has not been rolled out for all the QAI, purposive sampling is used to identify the QAIs that are already offering RPL programs and the respective assessment centres that have been approved by them. It is from these assessment centres that RPL candidates are randomly sampled. Table 5.3 provides the full sample that is used in the assignment.

**Table 5.3: Sample Size**

<b>Category</b>	<b>Population</b>	<b>Purposive Sample</b>
QAIs	84	14
Regulators	6	6
Assessment Centres	f(QAIs)	20
Industry, Employer Organizations and professional Bodies	35	10
Employees and Employee Organizations	f(COTU)	10
RPL Candidates	f (Ass. Centres)	10
Total		70

#### 5.4. Data and Data Collection

The wide array of data is collected from the stakeholders in the RPL section as specified in section 5.3 and table 5.3. This is both qualitative and quantitative data touching on the various aspects of RPL process in general and RPL assessment cost in particular. The data relating to RPL cost assessment is instrumental in determining DUC for prior learning assessment and the approaches to RPL revenue sharing and is obtainable from QAIs, RPL regulators and RPL assessment centres. These three are directly involved in the RPL implementation process and therefore directly incur RPL costs. The data with respect to the costs is obtained through a questionnaire to these groups of stakeholders. The rest of the data is qualitative in nature and is collected from the remaining stakeholders as is indicated in table 5.4.

**Table 5.4: Data and Data Collection Instruments**

<b>Data</b>	<b>Source</b>	<b>Collection Instrument</b>
Cost of: <ul style="list-style-type: none"> <li>• Screening,</li> <li>• Guidance and counselling</li> <li>• Facilitation</li> <li>• Evidence evaluation,</li> <li>• Certification,</li> <li>• Publicity and awareness,</li> <li>• Quality control,</li> <li>• Administration</li> </ul>	QAIs Quality Control Administration	Semi- Structured Questionnaire (Appendix I)  Secondary data Collection sheet from financial statements and QAIs records (Appendix VI)
Cost of: <ul style="list-style-type: none"> <li>• Assessment</li> <li>• Quality control,</li> <li>• Administration</li> </ul>	Assessment centres	Semi- Structured Questionnaire (Appendix II)  Secondary data Collection sheet from financial statements and QAIs records (Appendix VI)
Data on candidates' perceptions on RPL fees and other issues	Assessment centres	Semi- Structured Questionnaire Focus Discussion Group (Appendix III)
Data on employee Organizations Perceptions' on RPL issues	Employee Organisation centres	Semi- Structured Questionnaires (Appendix IV and V)
Data on Industry, Employer Organizations and professional Bodies Perceptions' on RPL issues	Industry, Employer Organizations and professional Bodies centres	

To supplement the above RPL data from the institutions that have already implemented it, secondary data on costs of the QAIs and assessment centres is collected in the two subsequent years following implementation (2020/2021 and 2021/2022). This applies to the formal training programs, the information that is weighted against the cost of RPL assessment. Accounts analysis with respect to changes in candidates arising from the implementation of RPL provide the initial categorization of RPL variable costs. The items of data collected are indicated in Appendix VI.

## 5.5. Data Analysis and Presentation

Accounts analysis using simultaneous equations is applied to secondary data collected in Appendix VI to provide the initial estimate of variable costs to QAIs and Assessment Centres. The overriding assumption is that the driver of costs in the year after implementation of RPL is the RPL process costs and that since the time duration post implementation is short, the fixed costs largely remain constant over that time (hence change in Fixed costs is zero.  $\Delta FC = 0$ ).

$$\Delta TC_{2022-2021} = \Delta FC + \Delta VC * \Delta No. of Candidates - - - - - (1)$$

Where TC is total cost; FC is period fixed costs and VC is variable cost.

For the formal program costs that are related to the RPL assessment costs, the accounts analysis method is used to separate fixed from variable costs. For the primary data, activity-based costing, using costs obtained from the questionnaires and RPL activities, is separate fixed from variable costs. The variable costs (direct costs) are directly traced to the RPL assessment. The overhead costs are then allocated to RPL based on the activities carried out in the course of incurring those costs as identified in table 4.1. Model (1) used in evaluation of secondary data is then applied to this to estimate the fixed and variable components for all the QAIs, Assessment centres and Regulators in general. The analysis is cross sectional in nature given the short time span over which RPL has been implemented in Kenya.

With respect to revenue sharing, the costs incurred in each of the cost centres identified in table 4.1 are used as a means to revenue sharing once the differentiated unit cost (DUC) has been established. The Costs incurred in the cost centres controlled by each of the RPL cost-incurring stakeholders is used as the revenue sharing weights ( $W_i$ ) with the overriding assumption that the cost incurred in the process of certifying an RPL candidate per stakeholder ( $C_i$ ) is directly

proportional to the RPL efforts that are attributed to that stakeholder in the certification process. It is further assumed that the cost incurred as DUC is directly proportional to the fees charged per candidate and therefore the accruing revenue per candidate (RPC). This characterization is indicated in model 2.

$$DUC \propto RPC = Fees = \frac{1}{N} \sum_{i=1}^N W_i C_i \text{-----} (2)$$

Where:

$W_i$  are the revenue sharing weights (proportions) among the RPL stakeholders;

$N$  is the number of key RPL stakeholders being four (QAIs, Assessment centres, KNQA and Regulators);

$C_i$  is the RPL assessment cost incurred per RPL candidate which is proportional to fees;

$RPC_i$  is the revenue per candidate which is equivalent to the fees per candidate and is directly proportional to the DUC

With that, the  $W_i$  are used in revenue sharing between QAIs, Assessment centres (AC), Regulators (RE) and KNQA as indicated in model 3:

$$Revenue\ Shared = W_{QAI}RPC_i + W_{AC}RPC_i + W_{KNQA}RPC_i + W_{RE}RPC_i \text{-----} (3)$$

$$W_i = \frac{Stakeholder\ Cost\ in\ the\ Prior\ Learning\ Assessment}{Total\ Prior\ Learning\ Assessment\ Cost} = \text{-----} (4)$$

## **6 FINDINGS**

### **6.1. Introduction**

This section provides the findings from the data collected and analyzed in the process of establishing the differentiated unit cost of the assessment of RPL. It provides the challenges encountered and a summary of the findings on RPL DUC; views of RPL candidates; views of employer organizations and views of employee organizations. It also presents the revenue sharing formula based on assessment of RPL activities.

### **6.2. Overview of the DUC for Prior Learning Assessment Data Challenges**

RPL implementation process is in its nascent and pilot stage in Kenya. Its rollout in 2019/2020 was severely affected by the onset of the COVID-19 pandemic which restricted numerous activities following the resultant restrictions of movements and lockdowns. The envisaged countrywide rollout was therefore severely affected such that the available data is restricted to the few institutions that have fully rolled it out (NITA and TVET-CDACC). Accordingly, the following challenges were experienced in data collection and the subsequent analysis:

- i. There was limited data on the costs associated with the RPL process ranging from the RPL assessment specific costs to the RPL general administrative costs.
- ii. The existing implementation of the RPL process is restricted at the low levels of KNQF qualification levels being levels 1,2, 3, 4, 5 and 6 leaving out higher levels being 7, 8, 9 and 10.
- iii. RPL is mostly applied to artisan and technical skills and is yet to be widely applied to humanities and social sciences

To overcome these challenges, the methodology adopted is one that combines the few available RPL assessment cost data points with the information available from formal training and assessment for the same qualifications. The correlation of the two established a cost adjustment factor that is explained in section 6.3.

### **6.3. The Differentiated Unit Cost of Prior Learning Assessment**

The process and results of coming up with the DUC for RPL assessment matrix is explained in the ensuing steps.

- i. The formative step involved the accumulation of RPL costs for each of the stages of the RPL assessment process. Data complete data was available from NITA and TVET-CDACC as summarized in Table 6.1.

**Table 6.1: Weighted Average Cost of Prior Learning Assessment Activities (KES)**

Activity	Level 3	Level 4	Level 5	Level 6	Average
Guiding and Counseling	2,000	2,000	2,500	2,500	2,250
Application forms	100.00	100	100	100	100
Evidence Assessment	6,666.67	6,666.67	6,666.67	6,666.67	6,666.67
Out of Work Evaluation	10,000	10,000	10,000	10,000	10,000
Evaluation Materials	7,200	9,200	11,800	14,000	10,550
Summative Assessment	3,500	3,500	6,000	6,000	4,750
Overhead Absorption	1,142.86	1,142.86	1,142.86	1,142.86	1,142.86
<b>Total</b>	<b>30,609.53</b>	<b>32,609.53</b>	<b>38,209.86</b>	<b>40,409.86</b>	<b>35,459.70</b>

The data is equally weighted for each of the qualification levels as well as on average. The average administrative costs are assumed to be comparative to that incurred on formal training programs since such cost is apportioned as per the number of candidates in a program. Based on the data limitations identified in section 6.2, it is the data presented in table 6.1 that is correlated with the data available from formal training programs to obtain an adjusting factor. This adjusting factor is necessary for obtaining DUC matrix for prior learning assessment in Kenya. At this stage, the available data combines all the nine skills categories identified by KNQF and ISCED as indicated in Appendix X

- ii. Accumulation of the running costs over the two financial years to June 30, 2022 for the sampled qualification awarding institutions and assessment centres. This is provided in table 6.2.

**Table 6.2: Successive Period Operating Costs (KES)**

<b>QAI Code</b>	<b>Operating Expenses 2021/2022</b>	<b>Operating Expense 2020/2021</b>
1. QAC 101	193,395,336	122,583,608
2. QAC 102	41,782,400	33,425,920
3. QAC 103	868,810,649	457,513,900
4. QAC 104	334,134,132	214,941,446
5. QAC 105	127,321,658	125,882,136
6. QAC 106	407,276,298	166,197,706
7. QAC 107	77,604,884	58,203,663
8. QAC 108	458,533,634	256,938,910
9. QAC 109	467,104,634	426,654,759
10. QAC 110	470,461,554	335,065,977
11. QAC 111	7,127,722,574	6,414,950,317

- iii. Using the accounts analysis method to separate fixed costs (FC) and variable costs (VC) with the assumption that total costs (TC) comprise fixed costs and variable costs and that in the short-term, fixed costs remain constant. The driver of costs in the short term is variable costs as influenced by the changes in the number of students enrolled under training

$$TC_{2022} = FC + VC_{2022}$$

$$TC_{2021} = FC + VC_{2021}$$

The Changes in student enrolment and the related change in variable costs for the QAIs and Assessment centres are indicated as in table 6.3

**Table 6.3: Inter-Year Changes in Costs and Student Enrolment Numbers**

<b>QAI Code</b>	<b>Inter-Year Change in Student enrolment</b>	<b>Inter-Year Change in Cost</b>
1. QAC 101	4,516	70,811,728
2. QAC 102	783	8,356,480
3. QAC 103	2,569	411,296,749
4. QAC 104	2,075	119,192,686
5. QAC 105	813	1,439,522
6. QAC 106	1,874	241,078,592
7. QAC 107	1,284	19,401,221
8. QAC 108	4,808	201,594,724
9. QAC 109	1,623	40,449,875
10. QAC 110	2,564	135,395,577
11. QAC 111	3,357	712,772,257

- iv. Allocating the variable costs to the 4 levels of qualifications under the KNQF used in the study and the nine qualification skills areas derived from KNQF. The allocation is based on the revenue structures as indicated by the fees charged. The 9 qualification skills areas based on KNQF framework (Appendix X) are:

- Education (EDU)
- Social Sciences, Journalism and Information (SJI)
- Business Administration and Law (BAL)
- Natural Sciences, Mathematics and Statistics (SMS)
- Information and Communication Technologies (ICT)
- Engineering, Manufacturing and Construction (EMC)
- Agriculture, Forestry, Fisheries and Veterinary (AFV)
- Health and Welfare (HAW)
- Services (SER)

The average fees charged for the programmes in each of the levels 3 to 6 is used to establish the average contribution to changes in revenue as indicated in table

## 6.4 Changes in Cost Contribution Ratios Based on Fees

	<b>Education</b>				<b>Social Sciences, Journalism and Information</b>			
QAI Code	EDU 3	EDU 4	EDU 5	EDU 6	SJI 3	SJI 4	SJI 5	SJI 6
QAC 101	-	-	-	0.10383	0.01104	0.02257	0.03509	0.03513
QAC 102	-	-	-	0.11111	0.01234	0.02469	0.03703	0.03705
QAC 103	-	-	-	0.11122	0.00583	0.02885	0.03093	0.04535
QAC 104	-	-	-	0.10858	0.01436	0.02242	0.02872	0.04308
QAC 105	-	-	-	0.1085	0.02134	0.02134	0.03291	0.02134
QAC 106	-	-	-	0.09927	0.01146	0.02292	0.03051	0.03438
QAC 107	-	-	-	0.11111	0.02014	0.02707	0.02922	0.03468
QAC 108	-	-	-	0.09307	0.01204	0.01531	0.03121	0.03451
QAC 109	-	-	-	0.09847	0.00672	0.02519	0.02641	0.04015
QAC 110	-	-	-	0.0947	0.01097	0.01228	0.03083	0.04066
QAC 111	-	-	-	-	-	-	-	-
	<b>Business Administration and Law</b>				<b>Services</b>			
QAI Code	BAL 3	BAL 4	BAL 5	BAL 6	SER 3	SER 4	SER 5	SER 6
QAC 101	0.01104	0.02257	0.03509	0.03513	0.01104	0.02473	0.03509	0.03513
QAC 102	0.01234	0.02469	0.03703	0.03705	0.01234	0.02469	0.03703	0.03705
QAC 103	0.00609	0.02885	0.03093	0.04535	0.00609	0.02885	0.03093	0.04535
QAC 104	0.01436	0.02242	0.02872	0.04308	0.01436	0.02242	0.02872	0.04308
QAC 105	0.02134	0.02134	0.03291	0.03291	0.02134	0.02134	0.03291	0.03291
QAC 106	0.01146	0.02292	0.03051	0.03438	0.01146	0.02292	0.03438	0.03438
QAC 107	0.02014	0.02707	0.02922	0.03468	0.02014	0.02707	0.02922	0.03468
QAC 108	0.01204	0.01531	0.03121	0.03451	0.01204	0.01531	0.03121	0.03451
QAC 109	0.00672	0.02519	0.02641	0.04015	0.00672	0.02519	0.02641	0.04015
QAC 110	0.01097	0.01228	0.03083	0.04066	0.01097	0.01228	0.03083	0.04066
QAC 111	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	<b>Natural Sciences, Math &amp; Statistics</b>				<b>ICT</b>			
QAI Code	SMS 3	SMS 4	SMS 5	SMS 6	ICT 3	ICT 4	ICT 5	ICT 6
QAC 101	0.02092	0.02473	0.03513	0.03572	0.02092	0.02473	0.03513	0.03572
QAC 102	0.01234	0.02469	0.03703	0.03705	0.01234	0.02469	0.03703	0.03705
QAC 103	0.00583	0.02885	0.03093	0.04535	0.00583	0.02885	0.03093	0.04535
QAC 104	0.01915	0.02242	0.02872	0.04308	0.01915	0.02242	0.02872	0.04308
QAC 105	0.02134	0.02134	0.03291	0.03291	0.02134	0.02134	0.03291	0.03291
QAC 106	0.01910	0.03067	0.03438	0.03564	0.01910	0.03067	0.03438	0.03564
QAC 107	0.02014	0.02707	0.02922	0.03468	0.02014	0.02707	0.02922	0.03468
QAC 108	0.01410	0.02740	0.04174	0.04231	0.01410	0.02740	0.04174	0.04231
QAC 109	0.02101	0.02574	0.03346	0.04102	0.02101	0.02574	0.03346	0.04102
QAC 110	0.02238	0.02297	0.03636	0.04250	0.02238	0.02297	0.03636	0.04250
QAC 111	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	<b>Engineering, Manufacturing, Construction</b>				<b>Agriculture, Forestry, Fisheries, Veterinary</b>			
QAI Code	EMC 3	EMC 4	EMC 5	EMC 6	AFV 3	AFV 4	AFV 5	AFV 6
QAC 101	0.02092	0.02473	0.03513	0.03572	0.02092	0.02473	0.03513	0.03572
QAC 102	0.01234	0.02469	0.03703	0.03705	0.01234	0.02469	0.03703	0.03705
QAC 103	0.00609	0.02885	0.03093	0.04535	0.00583	0.02885	0.03093	0.04535
QAC 104	0.01915	0.02242	0.02872	0.04308	0.01436	0.02183	0.02872	0.04308
QAC 105	0.02134	0.02134	0.03291	0.03291	0.02134	0.02134	0.03291	0.03291
QAC 106	0.01910	0.03067	0.03438	0.03564	0.01910	0.03067	0.03438	0.03564
QAC 107	0.02014	0.02707	0.02922	0.03468	0.02014	0.02707	0.02922	0.03468
QAC 108	0.01410	0.02740	0.04174	0.04231	0.01410	0.02740	0.04174	0.04231
QAC 109	0.02101	0.02574	0.03346	0.04102	0.02101	0.02574	0.03346	0.04102
QAC 110	0.02238	0.02297	0.03636	0.04250	0.02238	0.02297	0.03636	0.04250
QAC 111	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	<b>Health and Welfare</b>							

QAI Code	HAW 3	HAW 4	HAW 5	HAW 6
QAC 101	0.02092	0.02473	0.03513	0.03572
QAC 102	0.01234	0.02469	0.03703	0.03705
QAC 103	0.00609	0.02893	0.03093	0.04535
QAC 104	0.01915	0.02663	0.02872	0.04308
QAC 105	0.02134	0.02134	0.03291	0.06800
QAC 106	0.01910	0.03067	0.03438	0.03564
QAC 107	0.02014	0.02707	0.02922	0.03468
QAC 108	0.01410	0.02740	0.04174	0.04231
QAC 109	0.02101	0.02574	0.03346	0.04102
QAC 110	0.02238	0.02297	0.03636	0.04250
QAC 111	0.00000	0.00000	0.45513	0.54487

The resultant variable cost per qualification level is traced from these ratios as indicated in table 6.5. Once the changes in variable cost per qualification level per each of the assessment centres and Qualification Awarding Institution is established, this forms the basis of establishing the variable cost per student in the program. Ideally, whereas variable in total varies over time, variable costs per student does not vary at least in the short run which implies it is also the average cost whether based on changes in cost over successive periods or total variable cost in an individual period. This is indicated in step (v).

**Table 6.5: Apportionment of Variable Costs to Qualification Levels (KES '000)**

	Education				Social Sciences, Journalism, Information			
QAI Code	EDU 3	EDU 4	EDU 5	EDU 6	SJI 3	SJI 4	SJI 5	SJI 6
QAC 101	-	-	-	3460.49	1754.57	2570.93	3457.28	3460.49
QAC 102	-	-	-	433.37	226.93	330.08	433.23	433.37
QAC 103	-	-	-	24071.20	7816.05	17283.30	18138.58	24071.20
QAC 104	-	-	-	6695.90	3272.93	4234.25	4984.41	6695.90
QAC 105	-	-	-	69.13	52.48	52.48	69.13	52.49
QAC 106	-	-	-	11418.15	5891.88	8655.02	10483.11	11418.15
QAC 107	-	-	-	969.42	687.33	821.71	863.46	969.42
QAC 108	-	-	-	9315.95	4786.80	5444.53	8650.89	9315.95
QAC 109	-	-	-	2095.83	743.72	1490.63	1540.06	2095.83
QAC 110	-	-	-	6969.49	2950.34	3127.74	5639.02	6969.49
QAC 111	-	-	-	-	-	-	-	-
	Business Administration and Law				Services			
QAI Code	BAL 3	BAL 4	BAL 5	BAL 6	SER 3	SER 4	SER 5	SER 6
QAC 101	781.72	1598.08	2484.43	2487.64	781.72	1751.46	2484.43	2487.64
QAC 102	103.15	206.30	309.45	309.59	103.15	206.30	309.45	309.59
QAC 103	2504.54	11865.24	12720.52	18653.14	2504.54	11865.24	12720.52	18653.14
QAC 104	1711.48	2672.80	3422.96	5134.45	1711.48	2672.80	3422.96	5134.45
QAC 105	30.72	30.72	47.37	47.37	30.72	30.72	47.37	47.37
QAC 106	2763.13	5526.27	7354.36	8289.40	2763.13	5526.27	8289.40	8289.40
QAC 107	390.77	525.15	566.90	672.86	390.77	525.15	566.90	672.86
QAC 108	2427.79	3085.52	6291.88	6956.94	2427.79	3085.52	6291.88	6956.94
QAC 109	271.92	1018.83	1068.26	1624.03	271.92	1018.83	1068.26	1624.03
QAC 110	1485.70	1663.10	4174.38	5504.85	1485.70	1663.10	4174.38	5504.85

QAC 111	-	-	-	-	-	-	-	-
	Natural Sciences, Math and Statistics				ICT			
QAI Code	SMS 3	SMS 4	SMS 5	SMS 6	ICT 3	ICT 4	ICT 5	ICT 6
QAC 101	1481.36	1751.46	2487.64	2529.72	1481.36	1751.46	2487.64	2529.72
QAC 102	103.15	206.30	309.45	309.59	103.15	206.30	309.45	309.59
QAC 103	2397.99	11865.24	12720.52	18653.14	2397.99	11865.24	12720.52	18653.14
QAC 104	2283.02	2672.80	3422.96	5134.45	2283.02	2672.80	3422.96	5134.45
QAC 105	30.72	30.72	47.37	47.37	30.72	30.72	47.37	47.37
QAC 106	4605.54	7394.91	8289.40	8592.33	4605.54	7394.91	8289.40	8592.33
QAC 107	390.77	525.15	566.90	672.86	390.77	525.15	566.90	672.86
QAC 108	2842.07	5523.14	8414.52	8529.52	2842.07	5523.14	8414.52	8529.52
QAC 109	849.73	1041.14	1353.50	1659.18	849.73	1041.14	1353.50	1659.18
QAC 110	3029.61	3109.99	4922.77	5754.32	3029.61	3109.99	4922.77	5754.32
QAC 111	-	-	-	-	-	-	-	-
	Engineering, Manufacturing, Construction				Agriculture, Forestry, Fisheries, Veterinary			
QAI Code	EMC 3	EMC 4	EMC 5	EMC 6	AFV 3	AFV 4	AFV 5	AFV 6
QAC 101	1481.36	1751.46	2487.64	2529.72	1481.36	1751.46	2487.64	2529.72
QAC 102	103.15	206.30	309.45	309.59	103.15	206.30	309.45	309.59
QAC 103	2504.54	11865.24	12720.52	18653.14	2397.99	11865.24	12720.52	18653.14
QAC 104	2283.02	2672.80	3422.96	5134.45	1711.48	2602.41	3422.96	5134.45
QAC 105	30.72	30.72	47.37	47.37	30.72	30.72	47.37	47.37
QAC 106	4605.54	7394.91	8289.40	8592.33	4605.54	7394.91	8289.40	8592.33
QAC 107	390.77	525.15	566.90	672.86	390.77	525.15	566.90	672.86
QAC 108	2842.07	5523.14	8414.52	8529.52	2842.07	5523.14	8414.52	8529.52
QAC 109	849.73	1041.14	1353.50	1659.18	849.73	1041.14	1353.50	1659.18
QAC 110	3029.61	3109.99	4922.77	5754.32	3029.61	3109.99	4922.77	5754.32
QAC 111	-	-	-	-	-	-	-	-
	Health and Welfare							
QAI Code	HAW 3		HAW 4		HAW 5		HAW 6	
QAC 101	1481.36		1751.46		2487.64		2529.72	
QAC 102	103.15		206.30		309.45		309.59	
QAC 103	2504.54		11897.21		12720.52		18653.14	
QAC 104	2283.02		3174.53		3422.96		5134.45	
QAC 105	30.72		30.72		47.37		97.88	
QAC 106	4605.54		7394.91		8289.40		8592.33	
QAC 107	390.77		525.15		566.90		672.86	
QAC 108	2842.07		5523.14		8414.52		8529.52	
QAC 109	849.73		1041.14		1353.50		1659.18	
QAC 110	3029.61		3109.99		4922.77		5754.32	
QAC 111	-		-		324401.37		388370.89	

- v. Establishing the variable cost per student based on the changes in student numbers for each of the qualification levels. The changes in student enrolment ratios over the accounts analysis period for each of the KNQF qualification levels and the sample QAIs and Assessment Centres are shown in table 6.6

**Table 6.6: Change in Student Enrolment Ratios**

	Education				Social Sciences, Journalism and Information			
QAI Code	EDU 3	EDU 4	EDU 5	EDU 6	SJI 3	SJI 4	SJI 5	SJI 6
QAC 101	-	-	-	0.01112	0.00571	0.03073	0.01665	0.02503
QAC 102	-	-	-	0.00000	0.07325	0.12934	0.12866	0.05519
QAC 103	-	-	-	0.03235	0.01948	0.03273	0.03204	0.01914
QAC 104	-	-	-	0.03503	0.04087	0.10975	0.07100	0.04616
QAC 105	-	-	-	0.00797	0.05065	0.04260	0.15594	0.05898
QAC 106	-	-	-	0.02745	0.04311	0.07101	0.03780	0.06208
QAC 107	-	-	-	0.05608	0.14090	0.05058	0.05188	0.05048
QAC 108	-	-	-	0.01562	0.60791	0.01075	0.02004	0.01193
QAC 109	-	-	-	0.04428	0.04718	0.13779	0.02164	0.07958
QAC 110	-	-	-	0.01976	0.03703	0.03091	0.02192	0.01825
QAC 111	-	-	-	-	-	--	-	-
	Business Administration and Law				Services			
QAI Code	BAL 3	BAL 4	BAL 5	BAL 6	SER 3	SER 4	SER 5	SER 6
QAC 101	0.00644	0.0164	0.0828	0.0299	0.0000	0.0380	0.0359	0.0140
QAC 102	0.01724	0.0173	0.0184	0.0276	0.0000	0.0368	0.0551	0.0000
QAC 103	0.01614	0.0311	0.0136	0.0124	0.0357	0.0866	0.0134	0.0185
QAC 104	0.00956	0.0157	0.0568	0.0380	0.0255	0.0176	0.0099	0.0248
QAC 105	0.01774	0.0222	0.0229	0.0163	0.0022	0.1060	0.1145	0.0142
QAC 106	0.03012	0.0358	0.0206	0.0210	0.0338	0.0115	0.0716	0.0234
QAC 107	0.00930	0.0140	0.0181	0.0429	0.0114	0.0287	0.0448	0.0260
QAC 108	0.00956	0.0109	0.0124	0.0091	0.0064	0.0095	0.0097	0.0112
QAC 109	0.00974	0.0086	0.0628	0.0373	0.0078	0.0195	0.0156	0.0373
QAC 110	0.01044	0.0128	0.0163	0.2629	0.0186	0.0073	0.0177	0.0704
QAC 111	-	-	-	-	-	-	-	-
	Natural Sciences, Mathematics, Statistics				ICT			
QAI Code	SMS 3	SMS 4	SMS 5	SMS 6	ICT 3	ICT 4	ICT 5	ICT 6
QAC 101	0.0089	0.0089	0.0079	0.0059	0.0164	0.0327	0.0339	0.0186
QAC 102	0.0057	0.0102	0.0000	0.0052	0.0230	0.0998	0.0230	0.0394
QAC 103	0.0240	0.0380	0.0328	0.0462	0.1063	0.0230	0.0199	0.0272
QAC 104	0.0284	0.0247	0.0260	0.0228	0.0597	0.0394	0.0215	0.0115
QAC 105	0.0017	0.0017	0.0013	0.0008	0.0789	0.0763	0.0236	0.0549
QAC 106	0.0308	0.0366	0.0420	0.0217	0.0209	0.0154	0.0185	0.0170
QAC 107	0.0129	0.0156	0.0096	0.0070	0.0503	0.0906	0.0171	0.0400
QAC 108	0.0113	0.0141	0.0396	0.0125	0.0033	0.0188	0.0089	0.0082
QAC 109	0.0179	0.0191	0.0138	0.0103	0.0160	0.0609	0.0304	0.0490
QAC 110	0.0430	0.0256	0.0211	0.0166	0.0086	0.0146	0.0328	0.0211
QAC 111	-	-	-	-	-	-	-	-
	Engineering, Manufacturing, Construction				Agriculture, Fisheries, Forestry, Veterinary			
QAI Code	EMC 3	EMC 4	EMC 5	EMC 6	AFV 3	AFV 4	AFV 5	AFV 6
QAC 101	0.0080	0.4763	0.0098	0.0148	0.0118	0.0094	0.0083	0.0000
QAC 102	0.0162	0.0521	0.0553	0.0790	0.0058	0.0000	0.0103	0.0052
QAC 103	0.0131	0.0263	0.0181	0.0160	0.0266	0.0730	0.0435	0.0415
QAC 104	0.0105	0.0238	0.0225	0.0266	0.0317	0.0308	0.0292	0.0245
QAC 105	0.0160	0.0337	0.0260	0.0368	0.0022	0.0016	0.0016	0.0008
QAC 106	0.0142	0.0197	0.0221	0.0199	0.0323	0.0438	0.0458	0.0507
QAC 107	0.0144	0.0299	0.0411	0.0349	0.0164	0.0136	0.0105	0.0068
QAC 108	0.0078	0.0074	0.0080	0.0076	0.0092	0.0214	0.0137	0.0075
QAC 109	0.0168	0.0329	0.0274	0.0452	0.0279	0.0257	0.0190	0.0130
QAC 110	0.0118	0.0114	0.0141	0.0346	0.0250	0.0212	0.0200	0.0233
QAC 111	-	-	-	-	-	-	-	-

	Health and Welfare			
QAI Code	HAW 3	HAW 4	HAW 5	HAW 6
QAC 101	0.006218	0.004372	0.003236	0.002107
QAC 102	0.002382	0.002905	0.002467	0.002686
QAC 103	0.010327	0.014198	0.013710	0.022923
QAC 104	0.009832	0.016137	0.012821	0.027329
QAC 105	0.002438	0.004408	0.001962	0.000517
QAC 106	0.013715	0.016269	0.014272	0.014979
QAC 107	0.033343	0.005192	0.002210	0.003738
QAC 108	0.026333	0.008340	0.010821	0.010176
QAC 109	0.011283	0.014553	0.008610	0.011504
QAC 110	0.015644	0.011428	0.025865	0.057549
QAC 111	-	-	-	-

The resultant variable cost per qualification level per student is arrived at by combining the results in both tables 6.5 and 6.6. This is by getting the product of the changes in enrolment ratios in table 6.6 and the allocated qualification level change in variable cost as indicated in table 6.5. The same result also obtains if the allocated change in total variable cost is divided by the change in enrolment levels over the two period under accounts analysis. The findings are shown in table 6.7 which adjusts for average per institutions for each of the qualification levels by dividing by the number of institutions in the Sample.

**Table 6.7: Average Variable Cost per Qualification Level (KES)**

	Education				Social Sciences, Journalism and Information			
QAI Code	EDU 3	EDU 4	EDU 5	EDU 6	SJI 3	SJI 4	SJI 5	SJI 6
QAC 101	-	-	-	68,920.01	68092.15	18528.55	45973.17	30609.00
QAC 102	-	-	-	0.00	3956.65	3259.44	4300.31	10028.58
QAC 103	-	-	-	289,631.90	156170.05	205577.90	220369.11	489623.76
QAC 104	-	-	-	92,116.23	38598.00	18593.33	33832.68	73034.68
QAC 105	-	-	-	10,673.52	1274.58	1515.44	545.29	1094.60
QAC 106	-	-	-	221,965.45	72928.54	65041.50	147974.11	98143.12
QAC 107	-	-	-	13,463.79	3799.31	12653.74	12961.78	14956.03
QAC 108	-	-	-	124042.72	1637.72	105292.93	89767.36	162371.19
QAC 109	-	-	-	29160.61	9713.32	6665.71	43856.14	16226.68
QAC 110	-	-	-	137581.89	31076.22	39468.80	100321.55	148911.43
QAC 111	-	-	-	0.00	0.00	0.00	0.00	0.00
Total VC	-	-	-	987556.12	387246.54	476597.33	699897.14	1044999.08
AVC	-	-	-	109728.46	43027.39	47659.73	69989.71	104499.91
	Business Administration and Law				Services			
QAI Code	BAL 3	BAL 4	BAL 5	BAL 6	SER 3	SER 4	SER 5	SER 6
QAC 101	26876.26	21513.41	6647.01	18435.79	0.00	10203.00	15324.24	39379.24
QAC 102	7640.82	15201.21	21489.82	14326.54	0.00	7163.27	7166.46	0.00
QAC 103	60399.77	148393.36	364170.18	587083.44	27286.98	53325.36	369650.68	392291.08
QAC 104	86242.90	82289.13	29068.03	65182.00	32361.35	73034.68	165939.10	99860.57
QAC 105	2129.36	1705.54	2545.58	3581.95	17332.50	356.38	509.12	4108.35
QAC 106	48957.08	82411.12	190264.54	210137.07	43605.01	255721.50	61775.42	189220.20
QAC 107	32727.92	29303.91	24451.92	12223.30	26769.79	14243.84	9861.89	20128.46

QAC 108	52807.51	58879.22	105279.09	158530.86	79440.52	67654.66	134650.39	129490.00
QAC 109	17209.99	72636.00	10483.02	26847.11	21606.57	32228.00	42142.59	26843.80
QAC 110	55496.19	50496.13	99876.31	8166.36	31189.68	89023.14	91783.15	30499.25
QAC 111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total VC	390487.81	562829.04	854275.49	1104514.42	279592.41	602953.84	898803.03	931820.94
AVC	39048.78	56282.90	85427.55	110451.44	34949.05	60295.38	89880.30	103535.66
Natural Sciences, Mathematics, Statistics					ICT			
QAI Code	SMS 3	SMS 4	SMS 5	SMS 6	ICT 3	ICT 4	ICT 5	ICT 6
QAC 101	36800.27	43553.57	70136.40	95567.00	19995.07	11877.39	16225.62	30062.60
QAC 102	23023.85	25795.47	0.00	75757.21	5730.62	2640.82	17191.85	10033.04
QAC 103	38954.67	121454.97	150793.87	157286.27	8781.36	201053.63	248319.54	266808.91
QAC 104	38783.66	52166.70	63496.57	108692.01	18418.16	32700.06	76768.18	214717.79
QAC 105	21888.32	22470.26	44392.96	70943.00	478.69	495.20	2469.21	1061.09
QAC 106	79858.86	107843.18	105218.56	210817.08	117739.67	256835.04	239139.00	270451.31
QAC 107	23554.87	26153.41	46136.24	75011.93	6054.67	4515.26	25876.30	13105.01
QAC 108	52151.07	81363.62	44163.86	142409.53	178444.47	61093.47	197355.20	215855.20
QAC 109	29299.71	33616.53	60265.60	99152.48	32797.68	10535.97	27395.13	20858.71
QAC 110	27464.81	47298.77	91019.50	134925.46	136689.61	83258.78	58459.84	106204.31
QAC 111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total VC	371780.08	561716.49	675623.56	1170561.95	525129.99	665005.62	909199.88	1149157.98
AVC	37178.01	56171.65	75069.28	117056.19	52513.00	66500.56	90919.99	114915.80
Engineering, Manufacturing, Construction					Agriculture, Fisheries, Forestry, Veterinary			
QAI Code	EMC 3	EMC 4	EMC 5	EMC 6	AFV 3	AFV 4	AFV 5	AFV 6
QAC 101	40773.39	814.27	56417.71	37894.13	27826.28	41274.84	66739.11	0.00
QAC 102	8118.38	5061.24	7142.46	5006.13	22767.64	0.00	38438.65	76093.81
QAC 103	74625.81	175364.08	273803.67	453657.48	35124.28	63234.10	113767.41	175031.46
QAC 104	104684.34	54181.83	73189.46	92945.85	26019.31	40745.60	56515.84	101153.52
QAC 105	2360.46	1120.05	2240.11	1584.64	17152.57	23486.14	36106.64	73661.24
QAC 106	172928.98	200225.98	200293.04	230116.40	75991.26	90071.67	96626.77	90468.15
QAC 107	21073.55	13677.12	10751.41	15024.17	18576.41	30060.46	42052.74	77264.25
QAC 108	75800.22	155427.73	217471.13	234444.59	64547.87	53583.82	127287.31	236090.12
QAC 109	31169.32	19522.18	30407.54	22600.37	18794.23	24995.90	43972.97	78653.91
QAC 110	100422.48	106501.00	136012.20	64849.21	47184.30	57090.91	95815.04	96133.98
QAC 111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total VC	631956.92	731895.48	1007728.74	1158122.97	353984.15	424543.46	717322.48	1004550.44
AVC	63195.69	73189.55	100772.87	115812.30	35398.41	47171.50	71732.25	111616.72
Health and Welfare								
QAI Code	HAW 3		HAW 4		HAW 5		HAW 6	
QAC 101	52752.66		88707.4434		170210.0534		265881.8618	
QAC 102	55306.18		90710.87731		160233.0496		147210.1906	
QAC 103	94401.79		326182.5062		361158.5654		316753.4468	
QAC 104	111900		94809.21729		128667.7129		90541.33779	
QAC 105	15497.1		8571.005131		29695.49381		232976.5712	
QAC 106	179188.5		242552.0349		309941.5007		306103.618	
QAC 107	9127.494		78767.52404		199763.4922		140178.5687	
QAC 108	22447.9		137733.116		161733.4997		174328.0186	
QAC 109	46402.31		44078.70993		96862.7967		88865.16477	
QAC 110	75531.71		106142.5659		74231.31491		38997.82854	
QAC 111	0		0		196868.0207		227206.8931	
Total VC	662555.7		1218255		1889365.5		2029043.5	
AVC	66255.57		121825.5		171760.5		184458.5	

- vi. Using the total student numbers as the activity drivers to apportion fixed costs for each of the sample institutions. The assumption is that the higher the number of students, the

higher the fixed costs incurred and vice versa. Fixed costs per institution should remain constant in the short run. Programs on average run for 13 per semester out of which 4 are on average reserved for assessment.

$$\text{The ratio of Average Assessment time} = \frac{4 \text{ weeks}}{13 \text{ Weeks}} = 0.307692$$

Accordingly, the time used on assessment is used to apportion the total cost per student into the assessment process. The rest of the fixed costs are assumed to be irrelevant in student assessment and evaluation. The table 6.8 reveals the result.

**Table 6.8: Absorption of Fixed Cost into Assessment Based on Assessment Time (KES)**

Code	Total Enrolment	Total FC	FC per head	Assessment time Ratio (4/13)	Absorbed FC for Assessment
QAC 101	1,934	122,583,608	63383.46	0.307692	19,502.60
QAC 102	226	33425920	147902.3	0.307692	46,749.40
QAC 103	11,849	457,513,900	38612.03	0.307692	11,880.62
QAC 104	10,106	214,941,446	21268.7	0.307692	6,544.21
QAC 105	2,427	125882136	51867.38	0.307692	15,959.19
QAC 106	10,172	166,197,706	16338.74	0.307692	5,027.31
QAC 107	10,327	58203663	5636.067	0.307692	1,734.17
QAC 108	7,707	256,938,910	33338.38	0.307692	10,257.96
QAC 109	3,059	426,654,759	139475.2	0.307692	42,915.46
QAC 110	9,847	335,065,977	34027.21	0.307692	10,469.91
QAC 111	94,527	6414950317	67863.68	0.307692	<u>20,881.13</u>
Assessment FC					<b><u>15,674.51</u></b>

- vii. Establishing the total cost qualification level by summing up the apportioned fixed costs and the estimated variable costs for each of the sample institutions. Whereas fixed cost is constant for all levels, the variable cost varies. This is provided in Table 6.9. Table 6.9 also compares the estimated formal cost of training and assessment with the RPL cost as indicated in table 6.1

**Table 6.9: Unit Cost of Assessment of Formally Trained Candidates**

	<b>Education</b>				<b>Social Sciences, Journalism, Information</b>			
	EDU 3	EDU 4	EDU 5	EDU 6	SJI 3	SJI 4	SJI 5	SJI 6
AVC	-	-	-	109728.51	43027.39	47659.73	69989.71	104499.91
FC	-	-	-	15,674.50	15,674.50	15,674.50	15,674.50	15,674.50
TC	-	-	-	125,403.01	58,701.89	63,334.23	85,664.21	120,174.41
RPL Cost				40,409.86	30,609.53	32,609.53	38,209.86	40,409.86
Proportion				0.32224	0.52144	0.51488	0.44604	0.33626
	<b>Business Administration and Law</b>				<b>Services</b>			
	BAL 3	BAL 4	BAL 5	BAL 6	SER 3	SER 4	SER 5	SER 6
AVC	39048.78	56282.90	85,427.55	110,451.44	34,949.05	60,295.38	89,880.30	103,535.66
FC	15,674.50	15,674.50	15,674.50	15,674.50	15,674.50	15,674.50	15,674.5	15,674.50
TC	54,723.28	71,957.40	101,102.05	126,125.94	50,623.55	75,969.88	105,554.8	119,210.16
RPL Cost	30,609.53	32,609.53	38,209.86	40,409.86	30,609.53	32,609.53	38,209.86	40,409.86
Proportion	0.55935	0.45318	0.37793	0.32039	0.60465	0.42924	0.36199	0.33898
	<b>Natural Sciences, Mathematics and Statistics</b>				<b>ICT</b>			
	SMS 3	SMS 4	SMS 5	SMS 6	ICT 3	ICT 4	ICT 5	ICT 6
AVC	37,178.0	56,171.6	75,069.3	117,056.2	52,513.0	66,500.6	90,920.0	114,915.8
FC	15,674.50	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5
TC	52,852.51	71,846.1	90,743.8	132,730.7	68,187.5	82,175.1	106,594.5	130,590.3
RPL Cost	30,609.53	32,609.53	38,209.86	40,409.86	30,609.53	32,609.53	38,209.86	40,409.86
Proportion	0.57915	0.45388	0.42107	0.30445	0.44890	0.39683	0.35846	0.30944
	<b>Engineering, Mathematics and Construction</b>				<b>Agriculture, Fisheries, Forestry, Veterinary</b>			
	EMC 3	EMC 4	EMC 5	EMC 6	AFV 3	AFV 4	AFV 5	AFV 6
AVC	63,195.7	73,189.5	100,772.9	115,812.3	35,398.4	47,171.5	71,732.2	111,616.7
FC	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5	15,674.5
TC	78,870.2	88,864.0	116,447.4	131,486.8	51,072.9	62,846.0	87,406.7	127,291.2
RPL Cost	30,609.53	32,609.53	38,209.86	40,409.86	30,609.53	32,609.53	38,209.86	40,409.86
Proportion	0.38810	0.36696	0.32813	0.30733	0.59933	0.51888	0.43715	0.31746
	<b>Health and Welfare</b>							
	HAW 3		HAW 4		HAW 5		HAW 6	
AVC	66,255.6		121,825.5		171,760.5		184,458.5	
FC	15,674.5		15,674.5		15,674.5		15,674.5	
TC	81,930.1		137,500.0		187,435.0		200,133.0	
RPL Cost	30,609.53		32,609.53		38,209.86		40,409.86	
Proportion	0.37361		0.23716		0.20386		0.20192	

viii. Correlating the DUC from formal learning with the data available for RPL costs at NIA and TVET-CDACC in Table 6.1 to establish the cost adjustment factor. The adjustment factor is used to establish the final DUC for prior learning Assessment matrix. The Matrix is indicated in table 6.10. The matrix has:

- Nine Skills categories
- Four Qualification levels

**Table 6.10: DUC Matrix for Prior Learning Assessment**

	Level 3	Level 6	Level 5	Level 6
Education				0.32224FQF
Social Sciences, Journalism Information	0.52144FQF	0.51488FQF	0.44604FQF	0.33626FQF
Business Administration and Law	0.55935FQF	0.45318FQF	0.37793FQF	0.32039FQF
Natural Sciences, Math and Statistics	0.57915FQF	0.45388FQF	0.42107FQF	0.30445FQF
ICT	0.44890FQF	0.39683FQF	0.35846FQF	0.30944FQF
Engineering, Manufacturing, Construction	0.38810FQF	0.36696FQF	0.32813FQF	0.30733FQF
Agriculture, Forestry, Fisheries, Veterinary	0.59933FQF	0.51888FQF	0.43715FQF	0.31746FQF
Health and Welfare	0.37361FQF	0.23716FQF	0.20386FQF	0.20192FQF
Services	0.60465FQF	0.42924FQF	0.36199FQF	0.33898FQF

Where: FQF is the fees payable for students qualifying through the formal training process)

#### **6.4. QAI and Assessment Centers Perspectives**

The nascent nature of implementation of the RPL program in Kenya implied that there is limited information among the QAIs and assessment centres outside of that available at the pilot stage of the program. While all the QAIs had been sensitized on the RPL program, only two had fully implemented the program nation-wide up to the level 6 of the KNQF skills levels. The views collected from QAIs in this respect indicate the following:

- All are implementing the KNQF qualification levels under review here being levels 3 to 6 of the Qualification's Framework
- The time used by QAIs to have complete evidence assembled by RPL candidates varies widely from between one week to three months or longer. The lower the qualification level sought for prior learning assessment, the shorter the period needed for evidence collection and vice versa.
- The institutions currently pay a flat rate per day to facilitators and assessors. On average, they pay an amount ranging from KES 4,000 to KES 10,000 (USD 32.52 to USD 81.30) on the days the facilitators and assessors carry on these duties. The number of candidates assessed per facilitator per day ranges from 3 to 15 depending on the level of

qualification and the skills category. Higher levels of qualifications generally require more effort than lower levels and the lower the qualifications level sought for prior learning assessment, the higher the number of candidates that can be assessed per assessor per day

- The information available at the various assessment centres is currently limited since RPL is at the nascent stage of implementation and as such most of the information is still centralized at the QAIs' headquarters.
- The RPL certification process currently takes between one week and three months with both results and certificates made available within this time framework.
- Whereas tracer studies have yet to be implemented, the following other monitoring and evaluation activities have been put in place:
  - i. Rotation of assessors that is done on a more frequent basis than annual
  - ii. Internal audits that are undertaken annually
  - iii. Training of practitioners that is done on a more frequent basis than quarterly
  - iv. Surprise checks on assessment centres that involve at least one check between one month and three months.

## **6.5. Employers and Industry Stakeholders Perspectives**

The views of employers, their associations and industry players including professional associations were sought. In this category of stakeholders, 40% were derived from the public sector; 50% from the private formal sector and 10% from the informal sector that has been exposed to RPL program. Their perspectives on the supply of skills in the market that are informally and non-formally acquired; the employers' affinity to recruiting individuals qualified under the RPL program; the reception of the RPL alternative to certification and the level of financial and other support employers are willing to accord the RPL program are outlined in this section. An index score of 3.617 was attained indicating a positive perception of the RPL program by the industry stakeholders translating to 72.34% support.

This positive perception was also corroborated with respect to financial aspects that included the willingness to provide financial support to employees to be certified under RPL; the perception

of the RPL cost of certification and its payment flexibility and the affinity of employer organizations and the industry stakeholders to recommend their employees to pursue formalization of their skills and competences through the RPL process. The support by the industry stakeholders garnered a support index of 3.3 translating to 66% support.

#### **6.6. Employees and Employee Associations Perspectives**

Employee are represented through employee organizations that span the public and private sectors. 90% of the respondents were drawn from the public sector since they are familiar with the RPL process while the remaining 10 cut across both the private and public sectors being an umbrella body of all employees in Kenya. Their expectations and perceptions of the RPL process focused on the prevalence of employees that qualify to be RPL candidates; the willingness of the employee organizations to advocate for RPL certification, formal employment and incorporation of such certified workers into their membership as well as the acceptance levels of RPL certification and support. On a scale level of 1 to 5, the employee organizations are receptive of RPL approach to certification with an index score of 3.55 translating to 71.00%.

In addition, the financing and costing aspects were evaluated in the assignment. This included the willingness for the employee organizations to advocate for employer support in financing their employees for RPL assessment; the flexibility of the fees payment they are willing to support and the ability of the employee organizations to recommend their members to the RPL program. The cumulative score of support was 3.82 translating to 76.4%. Majority of 60% were willing to advocate for employers to finance the program for their employees by up to a maximum of between 50% and 100% of the requisite fees.

#### **6.7. RPL Candidates Perspectives**

The views of RPL candidates about the RPL process in general and the existing fee and cost structure in particular were sought. 72.7% of the respondents were male while 27.3% were female. Since the study was undertaken when the candidates were under evaluation, it suggests that majority of the RPL candidates so far are male. None fell below the age of 20. 18.2% were

between the age of 20 and 25 while 36% were between the age of 26 and 30. Those that fell in the 31 to 35 age bracket were 27.3% while those above 35 years of age were 18.2%. It implies that RPL in the nascent stages a lot of who fall below the age of 35 which formed 71.8% of the respondents. This falls in tandem with the current demographic characteristics of the Kenyan employment sector where a huge portion of youth have requisite skills acquired in the formal and non-formal sector that requires formal recognition through RPL certification. This is especially so given that only 27.3% had certificate qualifications while none had diploma, undergraduate or postgraduate degree qualifications. The majority of the respondents, 72.7% had other qualifications acquired in the non-formal and informal settings.

The findings about the large pool of people with skills acquired through informal and non-formal settings is confirmed by the fact that all the respondents were seeking qualifications equivalent to level 3 and level 4 (54.5% and 45.5% respectively) of the KNQF qualifications. This is confirmed by the findings about their confidence index comparable to the individuals holding formal certifications with respect to skills levels; job performance; intention to formalize the skills through RPL and willingness to fill the skills gap. This posted a confidence index of 3.742 on a five-point scale, translating to 74.84%. This implies RPL has a great potential with respect to formalizing the skills acquired through informal and non-formal means in the Kenyan market. This is especially the case because majority of the respondents are willing to recommend others into the program as confirmed by the recommendation index of 4.091 translating to 81.82%

The RPL candidates had divided opinions with respect to flexibility of the fees; comparability with formal certification cost and affordability of the RPL fees. With an average index of 3.273 on a 5-point scale, the candidates feel comfortable with the fees. They however had varying opinions on how much they are willing to pay to obtain the RPL certification. The findings ranged from Sh.500 to Sh.210,000 (USD 4.07 to USD 1707.32). After eliminating the outliers, the average value the candidates were willing to pay for the RPL certification was Sh. 18,833.33. (USD 149.05). It is noteworthy however that this figure relates to level 3 and level 4 candidates of the KNQF qualifications levels that were available for the process and excludes level 5 and 6 who were not available and levels 7 to 10 that fell outside the scope of the assignment.

## 6.8. RPL Revenue Sharing

Revenue sharing is a function of the costs incurred by each of the stakeholders involved in implementing the RPL program. These are the QAIs; the Assessment Centres; the respective regulators and KNQA. The total revenue generated from the prior learning assessments is the product of the DUC and the number of candidates and this applies to all the qualification levels.

The revenue then is shared according to the Table 6.11.

**Table 6.11: Revenue Sharing Based On Prior Learning Assessment Costs**

<b>Cost</b>	<b>QAIs</b>	<b>Assessment Centres</b>	<b>KNQA</b>	<b>Industry Regulators</b>	<b>Total</b>
Guidance and Counseling	2,250				
Application and facilitation	100				
Evidence Assessment	6,666.67				
Quality Assurance	5,000	1,000	3000	3,000	
Assessment Materials		10,550			
Summative Assessment		4,750			
Overhead Costs	1,428.42	1428.42	1,142.86	571.53	
Total	20195.07	12,978.42	4,142.86	1,571.53	38,888.11
Proportionate Weights	0.5193	0.3337	0.1065	0.0404	1.0000

NB:

- Quality Assurance costs and administrative overheads are allocated on the basis of the effort levels of the respective stakeholders in the RPL assessment process
- The RPL direct costs are traced to the stakeholder associated with performing the various activities undertaken under the prior learning assessment

The weights, based on the weighted average costs for all the 4 levels of the KNQF qualifications (since revenue would be shared the same way irrespective of the qualification level) form the revenue sharing as indicated in the model below

**Table 6.12: Revenue Sharing Formula**

RPL Stakeholder	QAI	Assessment Centre	KNQA	Regulator
Percentages	51.93%	33.37%	10.65%	4.04%

**NB:** The accuracy of the revenue sharing formula is subject to the available data that is currently very limited. It is subject to improvement based on the same principles as RPL is widely implemented and more data becomes available in the Kenyan market.

## **6.9. RPL Sources of Funding**

Drawing from experiences from around the globe and literature review done in sections 1 and 2 of this document and in addition to insights from stakeholders with respect to RPL program in Kenya, a number of suggestions are made for funding of the RPL program:

- a) **Fees payable by RPL candidates:** The DUC for prior learning assessment developed here plus future improvements can serve as a basis of charging fees to the RPL candidates. This is in line with the principles adopted for the DUC for RPL being efficiency; integrity; adequacy; stability; objectivity and goal-orientation. The findings indicated that the candidates had a comfortable index of 65.46% with respect to the fees currently payable. In addition, the QAIs had the view that the fees are not adequate to cover all the aspects of the prior learning assessment. These two views suggest that there the need to supplement fees with other sources of funding.
- b) **Funding by the Central Government:** The government of Kenya finances trainees who go through formal training in institutions of higher learning through a subsidy process. In addition, evidence from other countries like Tanzania and India suggest that government involvement in funding the RPL program greatly enhances its success. The government

through the Ministry of labour, the Ministry of Sports and Youth Affairs, Ministry of Education; Ministry of Trade and Industry and other governmental agencies could provide subsidies to ensure the RPL program reaches a wide group of potential candidates. This will go a long way in mainstreaming skills and competences acquired informally and non-formally and thereby play a great role towards achieving the government agenda of reducing unemployment in Kenya.

- c) **Funding by County Governments:** In countries with federal units like Canada, USA, South Africa and Australia, devolved government units play a great role in implementation of the RPL program. This can equally apply in Kenya given the support of the Council of Governors. Outside of the national government, the devolved governments in Kenya would be a good source of supplementary subsidization of the RPL costs for candidates in their respective counties and possibly centrally coordinated by the Council of Governors. This will boost the County Governments' potential to increase the number of formally recognized skilled persons in the devolved units and their potential to reduce the high levels of unemployment.
- d) **Funding by employers and employer organizations:** In countries like Canada and South Africa, employers and employer organizations play a big role in financing RPL programs. The same applies to professional organizations in these countries. Data analysis from Kenya through this study reveals that employers, employer organizations and industry stakeholders have a support index of 72.34% for the RPL approach to mainstreaming of skills acquired through informal and non-formal means. From the same findings, the support index with respect to their willingness to finance, at least partly, the RPL program stands at 66%. The program can tap into this support to boost the financing of the program.
- e) **Training and education loan facilities:** The support index of the RPL program from the candidates implies that they are willing to finance their prior learning assessment through a variety of ways. That 72.7% had prior skills that needed recognition; 74.84% supported skills gap training and that 81.82% are willing to recommend their peers to the program is indicative of the great need for its implementation. Candidates can be financed from National loan programmes like the Higher Education Loans Board and

benefit from the loans to be repaid over a period of time just like it applies to candidates who go through formal training.

- f) **Assistance from Development partners:** development partners have played a great role not only in Kenya but also other developing countries like Tanzania. Their support would be instrumental in boosting the financial and technical aspects of implementing the RPL program in Kenya.

#### **6.10. RPL Assessment Cost Saving Measures**

Costs incurred on the RPL program range from general regulatory costs to specific implementation costs that cover the various aspects of prior learning assessment. These are guidance and Counselling; Application; Evidence Assessment; Out of work assessment; Assessment materials; the Assessment process and the administrative efforts of implementing the program. From these, cost saving measures available from the evidence from elsewhere and the analysis of the RPL system in Kenya include:

- i. **Using online RPL assessments:** Online assessments in Kenya have become more widespread following the lock-down measures instituted to counter the COVID-19 pandemic from the early 2020s. For programs where online assessment is possible, the cost of prior learning assessment would be considerably lower than the face-to-face approach. This is because it lowers down the cost of materials; the overhead administrative costs and the travel costs for out-of-station evaluations.
- ii. **Encouraging RPL assessment at employers' centres:** Collaboration with employers after identification and agreement on the general qualifications by the KNQF would encourage the assessment to be done at employment centres. This would reduce the costs incurred by QAIs and assessment centres by passing some of the costs of RPL process to the employers. The findings indicated wide support for RPL by employers and employer organizations indicating their willingness to support it not only financially but also technically.
- iii. **Encouraging prior self-assessment:** QAIs need to come up with rules and standards that would enable candidates carry out their own prior assessment before applying for the RPL program. this serves to reduce the number of candidates with mismatched prior

learning skills that need recognition. In so doing, it reduces the costs of guidance and counselling; the length of time that could be spent on evidence collection; the cost of screening and the possible costs of skills-gap training.

- iv. **Use of internally employed staff:** outside of the summative evaluation that requires involvement of industry and regulatory experts, the rest of the prior learning assessment steps could be accomplished by used on internal staff. Given that such staff are already on payroll with respect to the formal training duties, their deployment to the RPL program would not significantly increase cost given that the expenses incurred on such staff is largely a fixed cost to the institutions irrespective of where they are deployed.
- v. **Encourage a higher number of candidates per assessor:** Allowing assessors to assess a higher number of RPL candidates per day would greatly lower the assessment cost especially where the assessors are paid a daily rate as opposed to a piece rate for their assessment efforts. A study can be done to establish the maximum number of RPL candidates that can be evaluated by an assessor in a day without compromising on the quality of the assessment work. Based on the findings of such a study, assessors would be encouraged to reach this maximum threshold in order to save on assessment costs.
- vi. **Encourage payment to assessors on a daily rate:** A daily rate serves as a fixed cost per day irrespective of the number of candidates that are assessed. This is because the average cost of assessment per candidate reduces as the number of candidates assessed by the assessor goes up in the day. This should be subject to a maximum number of candidates that an assessor is allowed to prevent compromising on the quality of assessment.
- vii. **Economies of Scale:** being at the nascent stage of implementation in Kenya, the administrative costs of prior learning assessment are high. Given that the cost structure incorporates both variable costs traceable to the candidates and fixed costs attributable to the general administrative aspects, it is clear that the administrative costs per candidate would substantially reduce if the program attracts a wide number of candidates beyond the current that have so far been assessed. The advantage of a large pool of candidates is to reduce the average cost per candidate.

- viii. **Economies of Scope:** escalating the prior learning assessment to a wider scope to include assessments to all the 10 levels of qualification under the KNQF would have the same implications of increasing the number of RPL candidates and thereby reducing the average administrative costs per candidate. The current absorption rate identified in this study of KES 1,142.86 could further be reduced and thereby save on prior learning assessment costs.
- ix. **Adopting Centralized Assessment as much as possible:** This would save on travel costs for the RPL assessment team by passing some of these costs to the RPL candidates and other stakeholders that support them in their certification process.

## **7 CONCLUSION AND RECOMMENDATIONS**

### **7.1. Summary**

This section provides a summary of the overall work with respect to the terms of references. Kenya being in the nascent stages of implementation RPL approach to certification of skills and competences, the first section starts by reviewing the history of RPL globally with the objective of learning from the RPL frameworks in general and the RPL costing processes in particular. This culminated in identification of the strategic objectives of determining DUC for prior learning assessment as well as the rationalization for that DUC. The determination is based on the steps involved in RPL assessment as stipulated by the KNQF (Awareness and publicity; Counseling and facilitation as well as Assessment and certification).

In the second section of this work, a review of RPL costing and financing models from other countries is done. These are South Africa, Tanzania, India and Canada which provide an East African, African and world perspectives. The analysis indicated there is limited information as to the building blocks of RPL costing process. The formalized processes of RPL assessment however provided a means by which cost centres could be established with a distinction of variable costs and fixed costs of the assessment process. The same situation obtained for RPL financing models that largely depend on the regulatory environment; development partner support and national philosophy and objectives. Section 3 involves analysis of RPL stakeholders in Kenya. These are based on the institutional structure as established by the KNQF Act of 2014.

Section 4 lays the bases for the RPL assessment costing process and lays down the fundamental principles and assumptions that are behind cost estimation. It identifies the sources of costs in the RPL assessment process and establishes the relevant RPL assessment cost centres and activity cost drivers that are instrumental in cost determination.

Section 5 provides for the methodology of determining DUC for prior learning assessment in Kenya. It identifies 4 levels of KNQF for which DUC for prior learning assessment matrix is based i.e level 3, 4, 5 and 6 and indicates that this must apply to nine qualifications skills categories being Education; Social Sciences, Journalism and Information; Business

Administration and Law; Natural Sciences, Mathematics and Statistics; ICT; Engineering, Manufacturing and Construction; Agriculture, Forestry, Fisheries and Veterinary; Health and Welfare; and Services. It further provides the population of stakeholders and the mixed stratified sampling that is done for the assignment. Data analysis is specified for both primary and secondary data.

Section 6 provides the findings from the analysis and the views of various stakeholders in the RPL process. It combines available RPL assessment cost data with those from the formal approach to certification to come up with a DUC for prior learning assessment matrix for four levels of the KNQF qualifications i.e levels 3 to 6 and the 9 skills areas.

## **7.2. Conclusion**

The conclusion is based on the various strategic objectives set for determination of DUC for Prior Learning Assessment. The first objective relates to the analysis of the current assessment and certification cost in formal qualifications. The analysis was restricted to levels 3 to 6 of the KNQF of qualifications given that it is at these levels that RPL has been currently implemented in Kenya. Using accounts analysis of operating expenses, it was possible to determine the DUC for formal training programmes to range from for levels 3 to 6 respectively with respect to the nine skills categories under the KNQF. The cheapest DUC related to the Services skills cluster where the cost ranged from an average of KES 50623.55 to KES 119210.16 (USD 411.57 to 969.19) while the most expensive was Health and Welfare skills cluster where the cost ranged from KES an average of KES 81930.10 to KES 200,133.01 (USD 666.10 to USD 1,627.10).

The second strategic objective was to assess the different systems of determining DUC for prior learning. From evaluation of literature from across the globe, analysis indicated that there is limited information as to the building blocks of RPL costing process. The formalized processes of RPL assessment however provided a means by which cost centres could be established with a distinction of variable costs and fixed costs of the assessment process. There emerged a combination of methods of charging RPL assessment fees to the RPL candidates. These are:

- A flat fee to all candidates irrespective of the qualifications presented for prior learning assessment

- A graduated flat fee charged in accordance to the levels of the qualifications presented for prior learning assessment
- A fee equal to that charged to candidates pursuing certification through formal qualifications
- A fee taken as a percentage of the fees charged
- Fees subsidized by the government, employer organizations and development partners ranging from partial to full subsidization.

The fourth strategic objective was to identify the unit cost of RPL assessment in different qualifications levels and types. This was to culminate in a DUC matrix for prior learning assessment. The limited data with respect to RPL costing given the nascent stage of RPL process implementation led to the use of a combination of data from formal training programs and that from RPL. The resultant matrix indicates that DUC for prior learning assessment is based on the available assessment costs in the formal programs (formal qualification fees -FQF). The resultant matrix is indicated in form of 33 equations (4 skills levels and nine skills categories, excluding 3 for which data was unavailable). The matrix is indicated in table 6.10.

The fifth strategic objective was to determine a revenue sharing framework between the RPL stakeholders. The revenue sharing approach is arrived at on the basis of the various roles played by the four main stakeholders in the RPL assessment process. These are the QAIs, the Assessment Centres, KNQA and the various industry regulators for each of the qualifications sought. The model of revenue sharing as summarized below is subject to improvement as more information becomes available and as RPL is implemented on a large scale in Kenya:

- QAI : 51.93%
- Assessment Centre : 33.37%
- KNQA : 10.65%
- Regulators : 4.04%

The penultimate strategic objective was to identify the viable sources of funding for RPL in Kenya. This was done by drawing from examples from other countries that have implemented RPL as well as relying on the emerging sentiments from the RPL stakeholders in Kenya. In this

respect a mixture of six funding options are proposed. In the current state of Kenya, drawing from the formal sector of training for qualifications, the six can be used in a variety of combinations to ensure the success of the RPL process.

The final strategic objective was to identify viable approaches to cost savings in RPL assessment and certification process. Again, this was to be done based on available literature from a cross section of countries that have implemented RPL as well as from the emerging data in Kenya based on the on-going implementation of the RPL program. In this respect, nine approaches to cost savings derived from the process and administration of RPL in Kenya are proposed.

### **7.3. Recommendations**

The DUC matrix for prior learning assessment as well as the revenue sharing formula arrived at in this paper is as a result of a limited data given that RPL program implementation in Kenya is at its nascent stage. With this consideration and in the consideration of the findings from the assessment of the RPL program in Kenya in general and DUC for RPL and revenue sharing in particular, the following recommendations are made:

- a) After implementing the model, an appraisal of its strengths and weaknesses is necessary after a few cycles of implementation. This can help come up of new strategies of improving on it. This could include collecting more data and carrying out further analysis as more information becomes available and after more QAIs implement the RPL process. This will help generate data that can be used to improve on the DUC matrix for prior learning assessment as well as the revenue sharing formula arrived at this stage of RPL implementation in Kenya.
- b) There is need to increase the scope of DUC matrix for prior learning to include all the levels of KNQF qualifications including levels 1 and 2 as well as levels 7, 8, 9 and 10 that were not incorporated in this study. This will greatly improve the accuracy, inclusiveness, fairness, consistency and stability of the resultant DUC matrix for prior learning assessment.
- c) From a quality control perspective and with respect to monitoring and evaluation of the RPL program in Kenya, it is recommended that tracer studies be carried out to follow out

on the candidates that have already been certified through the RPL program. This would help evaluate its success and limitations and therefore greatly enhance its future performance levels as it becomes widely accepted in Kenya. Still on the same issue, there is need for continuous internal audits to ensure assessment centres strictly adhere to the standards set for implementation of the program. This will help enhance confidence of citizens in the system and achieve cost-effectiveness.

- d) From a general perspective that has an implication on DUC for assessing prior learning, it is recommended that there is need for higher levels of publicity and marketing of the program to generate adequate interest among Kenyan citizens and other individuals like refugees from other countries. This will inevitably increase the enrolment for prior learning assessment and lead to the advantages of economies of scale and economies of scope. With economies of scale and scope, the average administrative costs per RPL candidate would reduce and thereby help save of costs of implementing the program.

## REFERENCES

- Alexander, G., Wyk, M. M. V., Bereng, T., & November, I. (2011). The legitimization of Recognition of Prior Learning (RPL) as redress mechanism for work spaces in post-apartheid South Africa: Narrative of a black master builder. *Journal of Social Sciences*, 26(2), 153-162.
- Conrad, D. (2008). Situating prior learning assessment and recognition (PLAR) in an online learning environment. *The theory and practice of online learning*, 75
- Drury, C. M. (2013). *Management and cost accounting*. Springer.
- International Labour Organization - ILO (2018). *Recognition of Prior Learning: Learning Package*. International Labour Office, Skills and Employability Branch, Employment Policy Department, Geneva. IASN:978-92-2-131593-3
- International Standard Classification of Education-ISCED (2013). Fields of Education and Training 2013 Detailed Field Descriptions. United Nations Educational, Scientific and Cultural Organization (UNESCO), UNESCO Institute for Statistics, Montreal, Canada.
- Mihyo, P. B., Mmari, D. E., & Msami, J. B. (Eds.). (2020). *Youth Transition from School to Work in Tanzania: A Case Study of the Vocational Education and Training in Tanzania (VETA)*. Organisation for Social Science Research in Eastern and Southern Africa.
- New Zealand Qualifications Authority – NZQA (2017). Recognizing Learning for Credit: Guidelines for Recognition and Award of Credit for Learning.
- Pradhan Mantri Kaushal Vikas Yojana – PMKVY (2022). *Recognition of Prior Learning*. Available at <https://www.pmkvyofficial.org/recognition-of-prior-learning>. Accessed on 1.9.2022
- Sadgopal, A. (2016). 'Skill India' or Deskillng India: An Agenda of Exclusion. *Economic and Political Weekly*, 33-37.
- Seres, L., Maric, M., Tumbas, P., & Pavlicevic, V. (2019). University stakeholder mapping. In *ICERI2019 Proceedings* (pp. 9054-9062). IATED.

- South African Qualifications Authority (SAQA). 2019. *National Policy for the Implementation of the Recognition of Prior Learning, as Aligned*. Government Gazette No. 42319, 19 March 2019. Pretoria: SAQA
- Tanzania Commission for University Education – TCU (2015). Invitation for prospective Applicants to Apply for the RPL Examination as a Pre-Requisite to Join Degree Programmes into Higher Education Institutions for Academic Year 2015/2016
- The Kenya National Qualifications Authority -KNQA (2019). *The Kenya National Qualifications Framework Structure*. Available at <https://www.knqa.go.ke/index.php/the-knqf-structure/> Accessed 31.8.2022
- The Kenya National Qualifications Framework – KNQF (2021). *Guidelines for Implementation of Recognition of Prior Learning in Kenya*. Ministry of Education, Nairobi, Kenya. ISBN 978-9914-40-566-8
- The Kenya National Qualifications Authority -KNQA (2022). *The Qualifications Framework*. Available at <https://www.knqa.go.ke/index.php/about-the-qualification-framework/> . Accessed on 2.9.2022.
- Vocational Education and Training Authority – VETA (2016). *Guidelines for Recognition of Prior Learning Assessment in Tanzania*. Moshi, Tanzania.
- Werquin, P. (2010). *Recognition of Non-Formal and Informal Learning: Country Perspectives*. OECD.

## APPENDICES

### Appendix I: Questionnaire to the RPL Qualifications Awarding Institutions (QAIs)

#### Section A: Background Information

1. Name of the Institution Qualification Awarding Institution	
---	--

2. Category of the Institution	Tick as Appropriate
a) Universities	
b) Foreign Qualifications Awarding Institution	
c) Local Qualifications Awarding Institution (Established by an Act of Parliament or Legal Notice)	

3. RPL Assessments offered by the institution	Tick as Appropriate
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I))	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	
e) None of the above	

#### Section B: Enrolment

4. What are the number of candidates that have enrolled in each of the levels in Question 3 above since inception? (indicate the number in the space provided)

RPL Assessments Levels	Enrolment
------------------------	-----------

a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

5. What are the respective current enrolments and full capacities under the RPL and the formal programmes in the current academic year?

	Formal	RPL
a) Current enrolment		
b) Full capacity		

### Section C: Counseling Facilitation

6. How many applicants do you allow a single counselor to guide in a single day for each of the RPL assessments you undertake? (Tick as appropriate)

Assessment Level	1	At most 3	At most 8	At most 10	Over 10
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)					
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)					
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1					
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma					

7. Which of the following approaches best describes how you pay the counselors for their work at each of the RPL assessment levels? (Tick as appropriate)

Assessment Level	Flat rate	Flat rate	Flat rate per	Monthly
------------------	-----------	-----------	---------------	---------

	per day	per Hour	Candidate	salary
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)				
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)				
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1				
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma				

8. How much do you pay based on the payment scheme you have provided in Question 7 above? Indicate as the case may be.

9. How much is the application fee payable by candidates after the guidance? \_\_\_\_\_

10. After Guidance, in which format do you allow candidates to apply into the RPL program? (Tick as Appropriate)

a) Only through physical forms available at our offices	
b) Only through physical forms downloaded from our website	
c) Only through on-line applications on our website	
d) Through either physical forms or online	

11. On average, how soon do applicants under the RPL assessment levels you undertake complete collecting their evidence following the application for RPL assessment? Tick as Appropriate

Assessment Level	At Most a Week	At Most a Fortnight	At most a Month	At most 3 months	Over three months
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)					
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)					
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1					
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma					

12. To what extent do you agree to the statement that “you encourage the RPL facilitators to make continuous follow-ups with candidates to ensure they promptly provide the full portfolio of evidence for RPL assessment? Tick as Appropriate

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

### Section E: Assessment of Evidence

13. On average, how many times are candidates for the respective RPL assessment levels of expected to meet with RPL assessors before they are ready to undertake the final assessment? Tick as Appropriate

Assessment Level	At most 3	At most 5	At most 10	At most 15	Above 15
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)					
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)					
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1					
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma					

14. Which of the following approaches best describes how you pay the RPL assessors for their work of verification and evaluating the portfolio of evidence? Tick as appropriate in the first row and indicate the amount in the subsequent rows for each of the assessments you undertake.

Assessment Level	Flat rate per day	Flat rate per Hour	Flat rate per Candidate	Monthly salary
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)				
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)				
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1				
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma				

15. Indicate the amount you pay assessors for evaluation of portfolio of evidence as per the scheme you have indicated in Question 14.
16. Do you allow advisors and facilitators to travel out of their work stations to collect third party evidence through interviews and visits to candidates’ place of work? Tick as Appropriate

Yes	No
-----	----

17. If yes NO to Question 16 above to Question 19. If Yes, which of the following approaches best describes how you pay the advisors and facilitators for their work with respect to traveling to collect evidence from candidates' place of work and third parties? Tick as appropriate

Assessment Level	Flat rate per day	Flat rate per Hour	Flat rate per Candidate	Per diem
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)				
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)				
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1				
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma				

18. How much is the amount you pay as per your institution's payment scheme in Question 17 above?

19. What is the maximum number of visits outside the work stations do you allow for advisors and facilitators to make in the course of collecting third party evidence?

\_\_\_\_\_

### Section F: Final Assessment and Certification

20. How much do you charge RPL candidates for summative evaluation? Kindly provide a figure for each of the Levels 3, 4, 5 and 6 respectively.

Assessment Level	Ksh.
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

21. To what extent do you agree with the statement that the fees charged to RPL candidates is adequate enough to ensure the RPL programme is self-sustaining

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

22. Provide an estimate cost of materials, equipment and other facilities that are availed to an RPL candidate for the final assessment for the assessment levels you assess at the terminal level.

Assessment Level	Estimated cost of materials per candidate
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I))	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

23. On average, how many RPL candidates do you allow the three assessors to assess in a single day for the assessment levels you offer? Tick as Appropriate

Assessment Level	at most 5	At most 8	At most 10	At most 15	Over 15
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))					
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I))					
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1					
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma					

24. Which of the following approaches best describes how you pay the RPL panel assessors for their work of carrying out the terminal assessment of the RPL candidate? Tick as appropriate in the first row and indicate the estimate amount in the subsequent rows for the assessment levels you undertake.

Assessment Level	Flat rate per day	Flat rate per Hour	Flat rate per Candidate	Monthly salary
<b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))				
<b>Level 4</b> (National Vocational Certificate III/Artisan				

Certificate/ National Skills Certificate I (GIT I)				
<b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1				
<b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma				

25. How soon are results available to the candidates following the terminal RPL assessment?

Immediately after Assessment	At most after one Week	At most after one Month	At most after 3 Months	Beyond 3 Months
------------------------------	------------------------	-------------------------	------------------------	-----------------

26. How soon are certificates available to the candidates following the release of results?

Immediately after Assessment	At most after one Week	At most after one Month	At most after 3 Months	Beyond 3 Months
------------------------------	------------------------	-------------------------	------------------------	-----------------

### Section G: Publicity and Awareness

27. What was the total budgetary allocation to your institution for the last financial year?

\_\_\_\_\_

28. Do you have budgetary allocations towards publicity and awareness?

Yes	No
-----	----

29. If yes, what was the actual expenditure on awareness and publicity in the last financial year?  
Kindly provide a figure\_\_\_\_\_

30. Compared to the current allocation towards publicizing RPL, which of the following proportional ranges best describes the proportion by which you expect the expenditure on publicizing RPL to increase in the coming financial period? Tick as Appropriate

Not Applicable	Up to 25%	Up to 50%	Up to 75%	Up to 100%	More than Double
----------------	-----------	-----------	-----------	------------	------------------

### Section H: Monitoring, Evaluation, Quality Control and Administration

31. At what frequency intervals do you carry out the following activities for your programs?  
(Tick as Appropriate)

a) Review of assessment standards with assessors	Never	Every over 4 Years	Between 2 and 4 Years	Annually	More Frequent than Annual
b) Undertaking graduate's tracer studies	Never	Every over 4 Years	Between 2 and 4 Years	Biannual	More frequent than Biannual
c) Having rotation of assessors	Never	Every over 4 Years	Between 2 and 4 Years	Annually	More Frequent than Annual

32. At what frequency intervals do you carry out the following activities for your programs?  
(Tick as Appropriate)

a) Carrying out Internal system audits	Never	Annual	Semiannual	quarterly	More frequent than quarterly
b) Training of practitioners	Never	Annual	Semiannual	quarterly	More frequent than quarterly

33. At what frequency intervals do carry out surprise checks during candidate assessments and counseling? (Tick as Appropriate)

Never	Up to Once per 6 months	Once in between 1 and 3 months	Monthly	More frequent than Monthly
-------	-------------------------	--------------------------------	---------	----------------------------

34. What was the approximate proportionate expenditure of your budget on the general administration of the institution?

Up to 20%	21% to 40%	41 to 60%	61% to 80%	Over 80%
-----------	------------	-----------	------------	----------

## Appendix II: Questionnaire to the RPL Assessment Centres

### Section A: Background Information

1. Name of the Assessment Centre	
----------------------------------	--

2. Assessment Levels conducted at the Assessment Centre	Tick as Appropriate
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I))	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

### Section B: Enrolment

3. For Each of the assessment levels in question 2, what is the number of candidates that have successfully completed RPL Assessment in the current academic year?

RPL Assessment Level	RPL Candidates Assessed
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II))	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I))	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

4. For Each of the assessment levels in question 2, what is the number of candidates under formal training that enrolled in the current academic year?

<b>RPL Assessment Level</b>	<b>Formal student enrolment</b>
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	
e)	

5. What is the overall enrolment and full capacity of the institution under the RPL and the formal programmes in the current academic year?

	Formal	RPL
Full capacity		

### Section C: Final Assessment

6. How much do you charge RPL candidates for summative evaluation? Kindly provide a figure\_\_\_\_\_
7. To what extent do you agree with the statement that the fees charged to RPL candidates is adequate enough to cover the assessment costs

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

8. Provide an estimate cost of materials, equipment and other facilities that are availed to an RPL candidate for the final assessment for the assessment levels you undertake at the terminal level.

Assessment Level	Estimated cost of materials per candidate
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)	

c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

9. How many RPL candidates on average do you allow the three assessors to assess in a single day for the assessment levels you undertake? Tick as Appropriate

Assessment Level	at most 5	At most 8	At most 10	At most 15	Over 15
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)					
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)					
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1					
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma					

10. Which of the following approaches best describes how you pay the RPL panel assessors for their work of carrying out the terminal assessment of the RPL candidates?

	Flat rate per day	Flat rate per Hour	Flat rate per Candidate	Monthly salary
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)				
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)				
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1				
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma				

11. How much does your scheme pay the assessors under the scheme you have identified in Question 10 above? Provide a figure

12. How soon are results available to the candidates following the terminal RPL assessment?

Immediately after assessment	At most after one Week	At most after one Month	At most after one 3 months	Beyond three months
---------------------------------	---------------------------	----------------------------	-------------------------------	------------------------

13. How soon are certificates available to the candidates following the release of results

Immediately after assessment	At most after one Week	At most after one Month	At most after one 3 months	Beyond three months
------------------------------	------------------------	-------------------------	----------------------------	---------------------

#### Section D: Publicity and Awareness

14. What was the total budgetary allocation to your institution for the last financial year?

\_\_\_\_\_

15. Do you have budgetary allocations towards publicity and awareness?

Yes	No
-----	----

16. If yes, what was the actual expenditure on awareness and publicity in the last financial year? Kindly provide a figure\_\_\_\_\_

17. Compared to the current allocation towards publicizing RPL, which of the following proportional ranges best describes the proportion by which you expect the expenditure on publicizing RPL to increase in the coming financial period? Tick as Appropriate

Not Applicable	Up to 25%	Up to 50%	Up to 75%	Up to 100%	More than Double
----------------	-----------	-----------	-----------	------------	------------------

#### Section E: Monitoring, Evaluation, Quality Control and Administration

18. At what frequency intervals do you carry out the following activities for your programs? (Tick as Appropriate)

a) Review of assessment standards with assessors	Never	Every over 4 Years	Between 2 and 4 Years	Annually	More Frequent than Annual
b) Training of practitioners	Never	Annual	Semiannual	quarterly	More frequent than quarterly
c) Undertaking graduates' tracer studies	Never	Every over 4 Years	Between 2 and 4 Years	Biannual	More frequent than Biannual
d) Carrying out surprise checks during candidate assessments & counseling	Never	Up to Once per 6 months	Once in between 1 and 3 months	Monthly	More frequent than Monthly
e) Having rotation of assessors	Never	Every over 4 Years	Between 2 and 4 Years	Annually	More Frequent than Annual
f) Carrying out Internal system audits	Never	Annual	Semiannual	quarterly	More frequent than quarterly

19. What was the approximate proportionate expenditure of your budget on the general administration of the institution?

Up to 20%	21% to 40%	41 to 60%	61% to 80%	Over 80%
-----------	------------	-----------	------------	----------

### Appendix III: Questionnaire and Focus Discuss Guide to the RPL Candidates

#### Section A: Background Information

1. Gender (Tick as Appropriate)	Male	Female
2. Age Bracket	Below 20	
	20-25	
	26-30	
	31-35	
	Above 35	
3. Education Level Attained	Certificate	
	Diploma	
	Undergraduate Degree	
	Postgraduate degree	
	Others (specify)	

4. Which of the following describes the qualifications category in which you are seeking RPL certification? Tick as Appropriate

Category of Qualifications	Tick as Appropriate
a) <b>Level 3</b> (National Vocational Certificate II/National Skills Certificate II (GIT II)	
b) <b>Level 4</b> (National Vocational Certificate III/Artisan Certificate/ National Skills Certificate I (GIT I)	
c) <b>Level 5</b> National Craft Certificate /National Vocational Certificate IV/Master Crafts Person III/CPA 1	
d) <b>Level 6</b> National Diploma/ Master Crafts Person II/CPA II/Professional Diploma	

#### Section B: Candidate Perceptions and Expectations

5. Recognition of prior learning (RPL) is a process recognized by Kenyan National Qualifications Authority under which persons possessing skills and competences (such as yours) similar to those offered through formal training, but acquired through informal and non-formal training are undertaken through a certification process in order to be awarded an equivalent certification. To what extent do you agree with the following statements relating to this alternative certification? Tick as Appropriate in the grid below

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I possess the skills equivalent to those of a person holding a formal certificate for the same job					
b) My Job performance is comparable to that of my colleagues holding formal training					
c) I am satisfied and comfortable with my current skill level					
d) I am very interested in a programme that will lead to certification and formalization of my skills					
e) Lack of a formal certification of my skills has hindered my ability to move to other jobs where my skills would be best applied					
f) I am willing to be undertaken through some intermediate skill training to fill the gaps that exist in my skills					
g) The certification process should be available on a continuing process to enable me apply at any time of my convenience					

### Section C: RPL Process Fees Expectations

6. To what extent do you agree with the following statements relating to the fees payable for RPL alternative certification process? Tick as Appropriate

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) The fees payment for the RPL process has flexible structure					
b) I am willing to pay as much as the fees payable for similar skills in formal training module					
c) The fee is payable for certification is affordable					
d) I am willing to recommend a colleague to take advantage of the program					

7. How much are you willing to pay for the formal certification for similar skills you possess?

\_\_\_\_\_

#### 8. Focus Discussion Points

1. The existing competence levels and skills
2. Hindrances to formal certification
3. The RPL idea and willingness to take on the RPL
4. The Skills acquisition process
5. Importance of skills certification to the contracting process and employment
6. Work experience with respect to formally trained and the non-formally and informally skilled colleagues
7. Industry challenges
8. Work Progression prospects
9. RPL Fees and cost expectations
10. RPL Fees payment flexibility
11. Skills Gap training
12. RPL evaluation expectations

## Appendix IV: Questionnaire and Focus Discuss Guide to Employee and Employee Groups

### Section A: Background Information

9. Name of Employee/ Employee Group	
10. Industry	Public Sector
	Private formal sector
	Informal Sector
	Others: Specify

### Section B: Employee Perceptions and Expectations

3. Recognition of prior learning (RPL) is a process recognized by the Kenyan National Qualifications Framework (KNQF). The RPL process provides formal skill recognition and certification to persons who possess skills and competences similar to those offered through formal training, but which are acquired through informal and non-formal settings. The candidates are undertaken through a process in order to be awarded a certification equivalent to formally trained persons without the need to go through formal training. To what extent do you agree with the following statements relating to this alternative certification with respect to your employment or employee organization? Tick as Appropriate in the grid below

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
h) Our members have increasingly acquired skills through non formal and informal means such that they possess skills and competences equivalent or better than those possessed by persons holding formal certifications for the same jobs					
i) Our union/Employee organization is willing to advocate for the hiring of people with non-formally or informally acquired skills but are hindered by the requirements for					

formal qualifications					
j) Our union/member organization is willing to accept the employment of individuals that have been certified through the RPL process					
k) Our union/member organization is very interested in the RPL programme since it leads to certification and formalization of the skills possessed by our employees					
l) Lack of formal certification of specified skills has hindered our union's/member organization's ability to advocate for promotion of members to higher employment grades where their skills would be best applied					
m) Our union/member organization is willing support our skilled but yet to be formally trained members to be taken through some intermediate skill training to fill the gaps that exist in their skills					

### Section C: RPL Process Employee Organization Support Expectations

4. To what extent do you agree with the following statements relating to the fees payable for RPL alternative certification process? Tick as Appropriate

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) Our union/member organization is willing to advocate for financial and other necessary support from employers in order to ensure our skilled but yet to be formally certified members can be undertaken					

through the RPL process					
b) The fees payment for the RPL must have a flexible structure in order for our union/member organization to advocate for the employers to support our members financially and other ways to undertake it					
c) Our union/member organization is willing to advocate for employers to pay the fees payable for similar skills in formal training modules to support our members through the RPL process					
d) Our union/member organization is willing to recommend our members to take advantage of the RPL program					

5. What proportion of RPL fees is your union/member organization willing to push for employers to pay for your members in order to help them go through the formalization of their skills through RPL? (tick as Appropriate)

None at All	Up to 25%	Up to 50% of the cost	Up to 75% of the cost	Up to 100% of the cost

## **Appendix V: Questionnaire and Focus Discuss Guide to Employers and Employer Groups**

### **Section A: Background Information (Tick as Appropriate)**

1. Name of Employer/ Employer Group	
2. Industry	Public Sector
	Private formal sector
	Informal Sector
	Others: Specify

### **Section B: Employee Perceptions and Expectations**

3. Recognition of prior learning (RPL) is a process recognized by the Kenyan National Qualifications Framework (KNQF). The RPL process provides formal skill recognition and certification to persons who possess skills and competences similar to those offered through formal training, but which are acquired through informal and non-formal settings. The candidates are undertaken through a process in order to be awarded a certification equivalent to formally trained persons without their need to go through formal training. To what extent do you agree with the following statements relating to this alternative certification process with respect to employment? Tick as Appropriate in the grid below

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) The employment market is increasingly over-supplied with individuals who possess skills and competences equivalent to or better than those possessed by persons holding formal certifications for the same job					
b) Our organization is willing to hire competent people with non-formally or informally acquired skills but is always limited by the employment policy requirements for formal					

qualifications					
c) Our organization is willing to accept the employment of candidates that have been certified through the RPL process					
d) Our organization is very interested in the RPL programme that will lead to certification, formalization and mainstreaming of the skills possessed by our employees					
e) Lack of formal certification of specified skills has largely hindered our organization's ability to move some of our employees to higher employment grades where their skills would be best applied					
f) Our organization is willing support our skilled but yet to be formally trained employees to be taken through some RPL intermediate skill training to fill the gaps that exist in their skills					

### Section C: RPL Process Employer Support Expectations

4. To what extent do you agree with the following statements relating to the fees payable and costs necessary for the RPL alternative certification process? Tick as Appropriate

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) Our organization is willing to provide financial and other necessary support to ensure our skilled but yet to be formally certified employees can be undertaken through the RPL process					

b) The fees payment for the RPL must have a flexible structure in order for our organization to support our employees financially and in other ways to undertake it					
c) Our organization is willing to pay as much as the fees payable for similar skills in formal training modules to support our employees through the RPL process					
d) Our organization is willing to recommend our employees to take advantage of the RPL program					

5. What proportion of RPL fees is your organization willing to pay for your employees in order to help them go through the formalization of their skills through RPL? (tick as Appropriate)

None at All	Up to 25%	Up to 50% of the cost	Up to 75% of the cost	Up to 100% of the cost

## Appendix VI: Secondary Data Collection Sheet

### Section A: Background Information

<b>1. Name of the Institution</b>		
	<b>2020/2021</b>	<b>2021/2022</b>
Budgetary Allocation		
Fees Collection		
Administrative Costs		
RPL Vote		
Programs and their descriptions (separate sheet)		
Fees payable for each of the programs		
Enrolment in the programs		
Total Expenses		

## **Appendix VII: QAIs: The National Polytechnics and TVET Institutions**

### **Schedule A: National Polytechnics**

1. Kenya Technical Trainers College;
2. The Kisumu National Polytechnic;
3. The Eldoret National Polytechnic;
4. The Meru National Polytechnic;
5. The Kenya Coast National Polytechnic;
6. The North Eastern National Polytechnic;
7. The Sigalagala National Polytechnic;
8. The Kitale National Polytechnic;
9. The Kisii National Polytechnic;
10. The Nyeri National Polytechnic

### **Schedule B: TVET Institutions in various Ministries**

1. Bukura Agricultural College; Kenya
2. Water Institute of Kenya
3. Forestry College;
4. Wildlife Research and Training Institute;
5. Kenya Institute of Mass Communication;
6. Kenya Utalii College;
7. Kenya Medical Training College

### Appendix VIII: Registered QAIs with KNQA

<b>QAI</b>	<b>QAI Type</b>
Moi Teaching and Referral Hospital	TVET
Association of Business Executives (ABE)	Foreign
Oxford Brookes University & Nairobi Hospice	Foreign
Kenya School of Revenue Administration (KESRA)	TVET
Mt. Kenya University	University
Meru University of Science and Technology	University
Kenya Institute of Supplies Examination Board (KISEB)	Professional Examinations Board
TVET CDACC	TVET
ABMA Education	Foreign
Delegation of German Industry and Commerce in Kenya (AHK)	Foreign
Bandari Maritime	TVET
National Industrial Training Authority	TVET
International Computer Driving Licence (ICDL)	Foreign
Human Resource Management Professional Examination Board (HRMPEB)	Professional Examinations Board
Kenya Accountants and Secretaries National Examination Board (KASNEB)	Professional Examinations Board
Kenya Medical Training College	TVET
Kenya School of Government	Specialized education institution
Nyeri National Polytechnic	TVET

## **Appendix IX: Professional bodies and/or Associations in Kenya**

1. Architectural Association of Kenya;
2. Association of Chartered Certified Accountants;
3. Association of Private Universities in Kenya;
4. Association of Professional Societies of East Africa;
5. Association of Public Universities in Kenya;
6. Board of Registration of Architects and Quantity Surveyors, Kenya;
7. Chartered Institute of Arbitrators;
8. Chartered Institute of Management;
9. Clinical Officers Council;
10. Council for Legal Education;
11. Engineers Board of Kenya;
12. Institute of Certified Public Accountants;
13. Institute of Certified Public Secretaries;
14. Institute of Human Resource Management;
15. Institution of Surveyors of Kenya;
16. Kenya Association of Technical Training Institutes;
17. Kenya Medical laboratory Technicians and Technologists;
18. Kenya National Association of Agricultural Professionals;
19. Kenya National Association of Private Colleges;
20. Kenya Nutritionists and Dieticians Institute;
21. Kenya Engineering Technology Registration Board;
22. Kenya Veterinary Board;
23. Media Council of Kenya;
24. Medical Practitioners and Dentists Board;
25. Nursing Council of Kenya;
26. Pharmacy and Poisons Board;
27. The Marketing Society of Kenya;

## Appendix X: KNQF and ISCED Qualifications Skills Categories

Broad field	Narrow field	Detailed field
00 Generic programmes and qualifications	000 Generic programmes and qualifications not further defined	0000 Generic programmes and qualifications not further defined
	001 Basic programmes and qualifications	0011 Basic programmes and qualifications
	002 Literacy and numeracy	0021 Literacy and numeracy
	003 Personal skills and development	0031 Personal skills and development
	009 Generic programmes and qualifications not elsewhere classified	0099 Generic programmes and qualifications not elsewhere classified
01 Education	011 Education	0110 Education not further defined 0111 Education science 0112 Training for pre-school teachers 0113 Teacher training without subject specialisation 0114 Teacher training with subject specialisation 0119 Education not elsewhere classified
	018 Inter-disciplinary programmes and qualifications involving education	0188 Inter-disciplinary programmes and qualifications involving education
02 Arts and humanities	020 Arts and humanities not further defined	0200 Arts and humanities not further defined
	021 Arts	0210 Arts not further defined 0211 Audio-visual techniques and media production 0212 Fashion, interior and industrial design 0213 Fine arts 0214 Handicrafts 0215 Music and performing arts 0219 Arts not elsewhere classified
	022 Humanities (except languages)	0220 Humanities (except languages) not further defined 0221 Religion and theology 0222 History and archaeology 0223 Philosophy and ethics 0229 Humanities (except languages) not elsewhere classified

	involving arts and humanities	humanities
	029 Arts and humanities not elsewhere classified	0299 Arts and humanities not elsewhere classified
03 Social sciences, journalism and information	030 Social sciences, journalism and information not further defined	0300 Social sciences, journalism and information not further defined
	031 Social and behavioural sciences	0310 Social and behavioural sciences not further defined 0311 Economics 0312 Political sciences and civics 0313 Psychology 0314 Sociology and cultural studies 0319 Social and behavioural sciences not elsewhere classified
	032 Journalism and information	0320 Journalism and information not further defined 0321 Journalism and reporting 0322 Library, information and archival studies 0329 Journalism and information not elsewhere classified
	038 Inter-disciplinary programmes and qualifications involving social sciences, journalism and information	0388 Inter-disciplinary programmes and qualifications involving social sciences, journalism and information
	039 Social sciences, journalism and information not elsewhere classified	0399 Social sciences, journalism and information not elsewhere classified
	040 Business, administration and law not further defined	0400 Business, administration and law not further defined

04 Business, administration and law	041 Business and administration	0410 Business and administration not further defined 0411 Accounting and taxation 0412 Finance, banking and insurance 0413 Management and administration 0414 Marketing and advertising 0415 Secretarial and office work 0416 Wholesale and retail sales 0417 Work skills 0419 Business and administration not elsewhere classified
	042 Law	0421 Law
	048 Inter-disciplinary programmes and qualifications involving business, administration and law	0488 Inter-disciplinary programmes and qualifications involving business, administration and law
	049 Business, administration and law not elsewhere classified	0499 Business, administration and law not elsewhere classified
05 Natural sciences, mathematics and statistics	050 Natural sciences, mathematics and statistics not further defined	0500 Natural sciences, mathematics and statistics not further defined
	051 Biological and related sciences	0510 Biological and related sciences not further defined 0511 Biology 0512 Biochemistry 0519 Biological and related sciences not elsewhere classified
	052 Environment	0520 Environment not further defined 0521 Environmental sciences 0522 Natural environments and wildlife 0529 Environment not elsewhere classified
	053 Physical sciences	0530 Physical sciences not further defined 0531 Chemistry 0532 Earth sciences 0533 Physics 0539 Physical sciences not elsewhere classified
	054 Mathematics and statistics	0540 Mathematics and statistics not further defined 0541 Mathematics 0542 Statistics

06 Information and Communication Technologies (ICTs)	058 Inter-disciplinary programmes and qualifications involving natural sciences, mathematics and statistics	0588 Inter-disciplinary programmes and qualifications involving natural sciences, mathematics and statistics
	059 Natural sciences, mathematics and statistics not elsewhere classified	0599 Natural sciences, mathematics and statistics not elsewhere classified
	061 Information and Communication Technologies (ICTs)	0610 Information and Communication Technologies (ICTs) not further defined 0611 Computer use 0612 Database and network design and administration 0613 Software and applications development and analysis 0619 Information and Communication Technologies (ICTs) not elsewhere classified
07 Engineering, manufacturing and construction	068 Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs)	0688 Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs)
	070 Engineering, manufacturing and construction not further defined 071 Engineering and engineering trades	0700 Engineering, manufacturing and construction not further defined 0710 Engineering and engineering trades not further defined 0711 Chemical engineering and processes 0712 Environmental protection technology 0713 Electricity and energy 0714 Electronics and automation 0715 Mechanics and metal trades 0716 Motor vehicles, ships and aircraft 0719 Engineering and engineering trades not elsewhere classified

	072 Manufacturing and processing	0720 Manufacturing and processing not further defined 0721 Food processing 0722 Materials (glass, paper, plastic and wood) 0723 Textiles (clothes, footwear and leather) 0724 Mining and extraction 0729 Manufacturing and processing not elsewhere classified
	073 Architecture and construction	0730 Architecture and construction not further defined 0731 Architecture and town planning 0732 Building and civil engineering
	078 Inter-disciplinary programmes and qualifications involving engineering, manufacturing and construction	0788 Inter-disciplinary programmes and qualifications involving engineering, manufacturing and construction
	079 Engineering, manufacturing and construction not elsewhere classified	0799 Engineering, manufacturing and construction not elsewhere classified
08 Agriculture, forestry, fisheries and veterinary	080 Agriculture, forestry, fisheries and veterinary not further defined	0800 Agriculture, forestry, fisheries and veterinary not further defined
	081 Agriculture	0810 Agriculture not further defined 0811 Crop and livestock production 0812 Horticulture 0819 Agriculture not elsewhere classified
	082 Forestry	0821 Forestry
	083 Fisheries	0831 Fisheries
	084 Veterinary	0841 Veterinary
	088 Inter-disciplinary programmes and qualifications involving agriculture, forestry, fisheries and veterinary	0888 Inter-disciplinary programmes and qualifications involving agriculture, forestry, fisheries and veterinary
	089 Agriculture, forestry, fisheries and veterinary not elsewhere classified	0899 Agriculture, forestry, fisheries and veterinary not elsewhere classified
09 Health and welfare	090 Health and welfare not further defined	0900 Health and welfare not further defined

	091 Health	0910 Health not further defined 0911 Dental studies 0912 Medicine 0913 Nursing and midwifery 0914 Medical diagnostic and treatment technology 0915 Therapy and rehabilitation 0916 Pharmacy 0917 Traditional and complementary medicine and therapy 0919 Health not elsewhere classified
	092 Welfare	0920 Welfare not further defined 0921 Care of the elderly and of disabled adults 0922 Child care and youth services 0923 Social work and counselling 0929 Welfare not elsewhere classified
	098 Inter-disciplinary programmes and qualifications involving health and welfare	0988 Inter-disciplinary programmes and qualifications involving health and welfare
	099 Health and welfare not elsewhere classified	0999 Health and welfare not elsewhere classified
10 Services	100 Services not further defined	1000 Services not further defined
	101 Personal services	1010 Personal services not further defined 1011 Domestic services 1012 Hair and beauty services 1013 Hotel, restaurants and catering 1014 Sports 1015 Travel, tourism and leisure 1019 Personal services not elsewhere classified
	102 Hygiene and occupational health services	1020 Hygiene and occupational health services not further defined 1021 Community sanitation 1022 Occupational health and safety 1029 Hygiene and occupational health services not elsewhere classified
	103 Security services	1030 Security services not further defined 1031 Military and defence 1032 Protection of persons and property