

GUIDELINE 01

Learning Outcomes in the context of qualifications frameworks and systems









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List of acronyms

ACQF African Continental Qualifications Framework

AfCFTA African Continental Free Trade Area

AQRF ASEAN Qualifications Reference Framework

ASEAN Association of Southeast Asian Nations

AU African Union

AUMS AU Member States

CAT Credit Accumulation and Transfer

CESA Continental Education Strategy for Africa

EAQFHE East African Qualifications Framework for Higher Education (EAQFHE)

EQF European Qualifications Framework

ETF European Training Foundation

EXCO Executive Committee

HE Higher education

MS Member States

NQF National Qualifications Framework

NQS National Qualifications System

QA Quality assurance

QF Qualifications Framework

REC Regional Economic Community

RPL Recognition of Prior Learning

RQF Regional Qualifications Framework

RVCC Recognition validation and certification of competencies

SADC Southern African Development Community

SADCQF Southern African Development Community Qualifications Framework

TCCA Technical Committee on Certification and Accreditation

TVET Technical and Vocational Education and Training

1 Introduction to the guideline on learning outcomes

The ACQF is a meta-framework based on learning outcomes and, by its very nature, encourages a learning outcomes orientation in its community of countries. Learning outcomes indicate what a learner should know, understand and do after a process of learning. This guideline on learning outcomes is launched at a time where African policy-makers and stakeholders broadly agree on the usefulness of learning outcomes approaches in recognition of learning on the continent. Learning outcomes approaches contribute to learner-centred education and training and to the lifelong learning objective of the ACQF.

Qualifications frameworks of any type need the support of learning outcomes approaches. Application of the learning outcomes approach contributes to greater transparency and comparability of qualifications between countries about what holders of qualifications know and can do, and to identification, documentation and recognition/ certification of learning outcomes irrespective of the context of the learning and acquisition of the learning outcome (formal, non-formal, informal; hybrid, online and distance learning).

The ACQF level descriptors are described as a hierarchy of levels of learning complexity, based on learning outcomes. The learning outcome composition allows countries to link or reference their qualifications levels to the ACQF levels. Referencing will be possible because countries will use learning outcomes approaches to describe their level descriptors and their qualifications; and to classify these qualifications in the national qualifications framework or system. Qualifications described in terms of learning outcomes will strengthen transparency of learning and trust in qualifications levels of member countries. The increased transparency will benefit the country stakeholders as well as those outside the country who are interested in understanding the qualification systems. The referencing process itself will promote the strengthening of learning outcomes approaches across the continent.

A key message of this guideline is that describing and formulating learning outcomes must be followed by implementation i.e. there must be an alignment between statements of learning outcomes, the teaching and learning activity, assessment and certification. This alignment will enhance the movement from statements of expected learning outcomes to actually achieved outcomes and support open and active learning that encourages learners to reach their full potential.

Most importantly, learning outcomes are at the core of the criteria for referencing national qualifications frameworks or systems to ACQF. The second referencing criterion, as proposed in draft 1 of ACQF Guideline 3 stipulates: "The national qualifications frameworks or systems are based on learning outcomes principles and related to arrangements for recognition of prior learning (including non-formal and informal) and, where appropriate, to credit systems."

The **learning outcomes guideline is one of 10 ACQF guidelines**. The ACQF guidelines give tangible substance to Output 3 of the ACQF project namely the ACQF policy and technical document. The guidelines are tools to support the practical application and sustainability of the principles, objectives and milestones defined in the ACQF document. The benefits of the ACQF guidelines will include:

- Helping, informing and supporting countries at early thinking or early implementation stage of NQF
 / NQS development, which require a knowledge base and an orientation to well-presented concepts
 and applications
- User-friendly, contextualised knowledge on foundation themes
- Guidance as to how the given themes and policies apply in the context of the ACQF

- Support to the ACQF implementers with basic thematic information and clear indications on the application.

1.1 Purpose of this guideline

The purpose of this learning outcomes guideline is to:

- Clarify and deepen the concept of learning outcomes and its relation to the ACQF. Across the world
 a substantial amount of research and guidance material has already been developed, advising on
 writing and using learning outcomes for different purposes, and this guideline draws on some of
 that information.
- Provide a technical orientation for national implementing bodies and stakeholders, especially the lead institutions managing the NQF and interacting with the (future) ACQF governing structure and implementation unit.

1.2 Guideline structure

This learning outcomes guideline includes a trio of documents: (1) a synthesis guideline, (2) a technical guideline (this document) and (3) a training module:

- Technical in-depth guideline: This document forms the core of the trio of documents. It will present as a short handbook: for clarification and technical support. This will be used by implementers, practitioners, and other groups
- Synthesis version: This version is a shortened version for policy purposes. It will be used primarily by policy institutions, and other groups, and has a key purpose to provide policy orientation
- Training module: This version will form part of the knowledge base and used for the ACQF Training programme and ACQF e-learning platform.

As an ACQF instrument, the learning outcomes guideline:

- Is oriented to application at both country (NQF / NQS) and continental (ACQF) levels, and addresses the perspectives and needs of both levels
- Works in synergy with, and complements, other ACQF guidelines will be used as a digital tool
- Refers to the relevant existing (or planned) African Union (AU) policies, instruments and recommendations
- Contributes to an AU area of education and qualifications, based on converging elements and recommendations that eventually contribute to continental integration and mutual understanding while respecting the diversity of the national and regional context
- Will evolve and be updated and enriched to reflect new developments, experiences and needs related with the transformation of learning and other drivers.

1.3 Target users

The main target users of this learning outcomes guideline are:

- Members or stakeholders of steering groups/implementation groups for the ACQF
- National Referencing Committees/ National Coordination Points and policy advisers involved in ACQF referencing and activities
- Implementers and practitioners of NQFs and NQSs
- Individuals, institutions, sector committees and labour market stakeholders actively involved in defining and writing learning outcomes in education and training, developing qualifications standards, units of competencies, assessment instruments and criteria, curricula and courses.

- Learners, teachers and trainers, career counsellors, professionals of Recognition of prior learning (RPL)

The ACQF learning outcomes approach will be important for referencing (establishing the link between) the national level descriptors or national qualifications levels to the ACQF levels. The referencing outcomes and implications will be of importance to persons involved in supporting mobility for lifelong learning.

1.4 Objectives

The learning outcomes guideline aims to:

- Clarify what is meant by learning outcomes
- Clarify the ACQF learning outcomes orientation and what are the related key requirements for countries engaging a learning outcomes approach
- Provide conceptual and technical orientations to countries and regional economic communities (RECs) to support the improvement and consolidation of their own NQSs and NQFs and links with the ACQF. This reinforces objective 3 of the ACQF which is to work in cooperation and complementarity with the NQFs
- Systematise and generate a set of applicable concepts, principles, criteria and procedures, as well as tools for strengthening a learning outcomes approach in the ACQF environment
- Contribute to a common understanding of the ACQF learning outcomes orientation and application across countries and regions to ease the implementation of the ACQF at continental, national and regional levels
- Seek synergy between the learning outcomes orientation and complementarity with already existing AU policies and instruments
- Present and elaborate on specific tools culminating in an ACQF handbook

1.5 Links between the learning outcomes guideline and other ACQF guidelines

The ten ACQF guidelines have a key intention to contribute technical and methodological support to countries participating in the ACQF process.

The learning outcomes guideline (Guideline 1) links with the other nine ACQF guidelines and corresponds with the proposed ACQF referencing criteria. All the guidelines have some links to each other whether explicit or implicit. For example:

The learning outcomes guideline (Guideline 1) has an explicit link to the guideline on referencing (Guideline 3) in particular:

- Proposed ACQF Referencing Criterion 1: There is a clear and demonstrable link between the qualifications levels in the NQF or NQS and the level descriptors of the ACQF
 - o and also links with Guideline 2: ACQF levels and level descriptors.
- Proposed ACQF Referencing Criterion 2: The NQF or NQS qualifications are based on learning outcomes principles and related to arrangements for recognition of prior learning and, where appropriate, to credit systems
 - o and also links with Guideline 4: Validation of Learning.
- Proposed ACQF Referencing Criterion 3: There are transparent processes and procedures for including qualifications in the NQF or for describing the place of qualifications in the NQS and information on qualifications is accessible, trustworthy and verifiable in a national register(s) of qualifications

and also links with Guideline 6: Registration and registers (databases) of qualifications.
 Learning outcomes based level descriptors are critical to classifying qualifications in an NQF/ NQS and here both Guideline 6 on registration of qualifications and Guideline 9 on inclusion of innovation become important to the conversation of how qualifications are included in an NQF

The ACQF, through its learning outcomes orientation will encourage a learning outcomes thinking across the continent. This, along with quality assurance and trust is a key feature of the ACQF. Since buy-in from, and communication with, stakeholders is also critical to implementation of the ACQF the Guidelines 5, 7, 8 and 10 are critical in strengthening trust, quality assurance and advocacy.

2 Theoretical-conceptual underpinnings of learning outcomes

This guideline elaborates a learning outcomes approach and its relevance in the ACQF context. A significant amount of learning outcomes guidance materials has already been written, notably by Cedefop (2013-2021) and this guideline draws on those materials.

2.1 Purpose and benefit of learning outcomes

Learning outcomes are explicit statements about the results of learning - what a learner is expected to know, understand and accomplish after a learning process. They are expressed through a combination of knowledge, skills, abilities and attitudes that an individual is expected to achieve after successfully engaging in various learning experiences.

They are the essential building blocks or "glue" for transparent education systems and present a common language for describing learning. They can be thought of as a common currency that enhances transparency at both national and international levels.

Learning outcomes are defined and described for application in various contexts. These contexts are important as they will affect the way the learning outcomes are formulated:

- In the education and training context they are applied at different levels and for various purposes:
 - Level descriptors of qualifications frameworks
 - Qualification descriptors and qualification standards,
 - Diplomas (and diploma supplements), certificates (and certificate supplements)
 - Classification and registration of qualifications in the national qualifications framework
 - Quality assurance of education and training programmes and related qualifications
 - Improvement of coherence between curricula, modules, subjects, assessment, certification
 - Credit accumulation and transfer arrangements,
 - Identification, documentation, assessment and certification in the context of recognition of prior learning (RPL)
 - Evaluation and recognition of foreign qualifications
 - Career guidance (information about learning opportunities and choices, occupations and jobs, and skills adjacency for career progression)
- In the work context, outcomes (skills, competencies) are expressed in occupational/ professional standards, recruitment and job advertisements, job descriptions and performance appraisals
- In a personal context they are expressed in learning outcomes in qualifications levels, descriptions of experience and competence, curricula vitae, and individuals' portfolios for RPL.

Along with other useful processes and tools, a learning outcomes approach forms the basis of trust and transparency by encouraging a learner-centred approach to education and training, clarifying the orientation of qualifications and allowing for greater comparability of learning outcomes of qualifications.

A move towards a learning outcomes approach presents a shift from the question "what did the graduate do to get this qualification?" to "What can the graduates do now that they have this qualification?" The focus is on achievement rather than merely focussing on the content of what has been taught. A learning outcomes approach is one which signals a shift:

- From a teacher-centred approach to a learner centred approach, clarifies the intention of teaching and learning and what is expected from the learner
- From input and duration of learning to output and actual knowledge, skills and competency acquired through the learning process.

Learning outcomes promote overall transparency and assist in clarifying the intentions of learning. However, learning outcomes do not entirely replace considerations on inputs to the learning process but rather add value, supplements, enhances and complements the existing input-oriented approaches.

2.2 Expected outcomes and achieved outcomes

Cedefop (2013-2021) distinguishes between expected outcomes and achieved outcomes:

- Expected learning outcomes reflect the desired targets shown in definitions and descriptions used in qualifications frameworks and qualifications profiles. They are desired targets, not outcomes.
- Achieved outcomes can only be obtained following learning through assessment and demonstration

Learning outcomes can be expressed as a loop (Cedefop, 2017) describing the interaction between the expected learning outcomes and the learning outcomes that have been achieved. The reflection of the effectiveness of the achieved outcome feeds into a continuous improvement process and requires consistent dialogue to improve expected outcomes.

2.3 Learning outcomes application and roles

Learning outcomes have applications in various dimensions of qualifications and recognition: qualifications frameworks, different sectors (higher education, general education and TVET), qualifications and part qualifications, quality assurance systems, credit and credit systems, prior learning (including non-formal; and informal experiential learning), and recognition of foreign qualifications. Because learning outcomes are used in so many different contexts, there is no single correct way of approaching them.

2.3.1 Learning outcomes based level descriptors (international and national) in qualifications frameworks

Learning outcomes in qualifications frameworks (regional or national) indicate the generic learning outcomes at the level of a qualifications framework. At this most generic level, a hierarchy of learning outcomes is used to describe the cumulative nature of level descriptors of RQF and NQF. They provide an indication of the horizontal (areas/domains of learning) and vertical dimensions (increase in complexity) of the qualifications framework levels.

They provide a common language and general reference point to enable differentiation of learning achievement across countries and across levels in a country. Regional and national level descriptors are often referred to as levels of learning progression and give an indication of the generic complexity associated with that level of the framework.

Learning outcomes based level descriptors then serve as external, generic reference point to guide the formulation of more specific learning outcomes, to ensure coherence and comparability with the overarching learning outcomes. They are formulated as regional or national generic learning outcomes statements that describe the characteristics that are important to a region or nation.

At regional level, they function as international, meta-framework descriptors that act as an external reference for referencing qualifications frameworks and qualifications levels.

At a national level, learning outcomes based level descriptors:

- Are often linked to features of existing qualifications and are designed to provide a shared understanding of the complexity of each NQF level.
- Provide the generic complexities that should be developed by all qualifications at all levels. The positioning of two or more qualification types on the same NQF level indicates that the qualifications are broadly comparable in terms of generic complexity at that level of the NQF, regardless of where or how the qualification was obtained. This means that all sub-sectors of a country may use the level descriptors as a scaffold for the qualifications in their context, and one qualification type may straddle more than one level.

Generic learning outcome statements are used to describe learning outcomes at an overarching level such as those used to describe level descriptors of an RQF or NQF. In cases where there are no generic level descriptors or no qualifications levels, the specific learning outcomes statements of qualification types can provide some generic aspects.

The ability of the learning outcomes in the level descriptors to increase transparency and support recognition depends on how they align with learning outcomes in qualification standards, curricula and assessment arrangements.

Examples from African experiences

Example of learning outcomes - Level descriptors in National Qualifications Frameworks: Cape Verde NQF, level 5. Source: ACQF Inventory

- Knowledge: Comprehensive, specialised, factual and theoretical knowledge within a field of study
 or work and an awareness of the boundaries of that knowledge, which includes abstract technical
 understanding and capacity to search additional information and knowledge to improve the
 execution of functions.
- **Skills**: A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems in routine situations and new contexts and activities. Capacity to select and apply equipment and methods, explain the alternatives, and ensure the technical support to solve more specific problems in known routines.
- Attitudes (responsibility and autonomy): Manage and supervise in contexts of study and work susceptible to unpredictable change. Revise and develop performance of self and others, both in quantitative and qualitative terms. Work independently when decisions or initiatives at intermediate level are required. Be able to organise the work for self and the team, according to the objectives and goals of the organisation and support others to effectively manage time.

Example of learning outcomes - Level descriptors in Regional Qualifications Frameworks: Southern African Development Community Qualifications Frameworks (SADCQF). Level 6. Source: <u>ACQF Inventory</u>.

- **Knowledge:** Demonstrate specialist knowledge in more than one area and ability to collate, analyse and synthesise a wide range of technical information.

- **Skills:** Demonstrate ability to apply specialist knowledge and skills in highly variable contexts and formulate responses to concrete and abstract problems
- Autonomy and responsibility: Manages processes and works with complete accountability for personal and group outcomes.

2.3.2 Learning outcomes approach to qualification profiles and/ or standards

Learning outcomes encourage a more systematic design of qualifications where they:

- Provide a common language for describing qualifications and help to make these qualifications clearer to potential learners, other institutions, employers and credential evaluators
- Have a technical purpose and provide an understanding of what is to be learned and what is the best way to achieve it.
- Set the expectations, and guide the teaching, learning process, and assessment. This approach may:
 - Enable learners to be clearer about the learning expectations and encourage them to take initiative and responsibility for managing their own learning
 - Allow stakeholders who are not experts in education, training and pedagogy to have a better understanding of what to expect from a qualification holder
- Promote mobility and recognition:
 - Achievement (through formal, non-formal and informal pathways) of assessed learning outcomes signals that an individual has achieved certain learning outcomes, and usually culminate in a qualification award

Learning outcomes position credits that can only be obtained after successful completion of learning and appropriate assessment. In this way they promote lifelong learning by using credit systems to create flexible ways for individuals to gain access to qualifications. This flexibility enhances the recognition that different pathways can lead to comparable outcomes that can be more easily recognised as entry into another qualification or as parts that can be accumulated and transferred into another qualification.

Learning outcomes improve the transparency of qualifications and play a role in ensuring a mutual understanding of qualifications.

National qualification descriptors

Learning outcomes play a role in the generic description of outcomes of nationally recognised types of qualifications, for example Bachelor's degree or diploma.

These learning outcomes statements are usually produced at a national level and will include the abilities (including transversal skills) of a typical qualification holder. National qualification descriptors are usually linked to national level descriptors and can indicate, in its description, several level descriptors to show the progression in complexity, if the qualification straddles more than one NQF level.

National qualification descriptors generally describe the learning achieved on completion of the qualification and act as an external reference for developing individual qualifications.

National subject benchmark statements

Learning outcome statements make explicit the nature of study and general subject-specific academic features and standards expected of graduates in specific subject areas, and what they are expected to know at the end of their studies. They are written by subject specialists and function as subject-specific external reference points for designing, delivering, and reviewing academic programmes. They provide guidance but are not intended to prescribe approaches or curriculum. This learning outcomes application

has been developed and used extensively by the Quality Assurance Agency for Higher Education (QAA) (QAA, 2020).

Tuning and Degree profiles

The Tuning Project explored subject-specific and general competences and distinguished between learning outcomes and competences:

- Expected learning outcomes are formulated by facilitators of learning, based on the insights gained from inputs by other stakeholders (which may include inputs from learners). Learning outcomes are specific to what a learner must be able to demonstrate after a process of learning. They can refer to learning outcomes in subjects, modules, part or full qualifications, and at all framework levels and specify the award of credit.
- Competencies are developed, by the learner, through the process of learning and are assessed at various stages. Competences relate to both subject specific competences and generic/ transversal competences. Transversal competences are becoming increasingly important to equip learners to prepare for their future roles in society. Examples of generic/ transversal competences are ability to work in a team, ability to communicate in a second language, ability to plan and manage time, etc. Cedefop (2017:31) defines competence as achieved learning outcomes that have been validated through the ability of the learner to apply knowledge and skills.

The Tuning Africa project (Africa-EU, 2016) focused on developing degree qualification profiles, with clearly identified learning outcomes and competence blocks that need to be achieved to obtain the degree.

- A popular publication is the *Guide for Formulating Degree Programme Profiles, including Programme Competences and Programme Learning Outcomes.* http://tuningacademy.org/wp-content/uploads/2014/02/A-Guide-to-Formulating-DPP EN.pdf
- The Tuning Academy published the *Reference points for the design and delivery of degree programmes* in a wide range of disciplines, developed in Tuning projects across different continents: http://tuningacademy.org/reference-points

The Tuning Project covered more than 100 diverse universities from the five sub-regions of Africa, in the following subject areas: agricultural sciences, applied geology, civil engineering, economics, mechanical engineering, medicine, and teacher education. The project also assisted in the development of curricula that were suitable and matched with labour market/ societal requirements in each of the subject areas.

Individual qualifications descriptors

Individual qualifications descriptors reflect the learning outcomes that describe and express individual subject-specific qualifications. They are specific to a qualification and the institution offering it. They can include subject-specific and general transversal skills. They are guided by the appropriate national qualifications descriptors.

Associated assessment criteria/ standards and modules

Learning outcomes can be used to express assessment criteria that relate to the performance of individuals. They are very specific and indicate what must be done to demonstrate that learning has been successfully achieved. The assessment standards and criteria are more detailed and describe precisely what is required of the learner. They support summative and formative assessments that take place throughout learning. For assessment, learning outcomes need to be written as threshold (minimum requirements) statements but do not prevent learners from going beyond these thresholds. Some of the criticisms against learning outcomes are linked to this point (Cedefop, 2017). Learning outcomes statements in assessment should not restrict learning in any way, and should not be too rigid or too narrow.

Learning outcomes of modules are specific to what a learner must know, understand and do. These are linked directly to design, delivery and assessment.

Occupational standards

Occupational standards differ from qualifications standards. Although they are set outside the education and training system, they have relevance for the definition and description of learning outcomes. Since these standards indicate what learners must be able to do in employment, they serve as the ideal link (feedback loop) between education and training and the labour market.

Examples from African experiences

Example of a registered qualification: Mozambique – Auto mechanics, level 5. Learning outcomes combine knowledge, transversal and technical skills. Reference: Q-EPI-04-5-13-19 at <u>Car mechanics CV5</u>.

Use English for social, personal and professional purposes Communicate work-related information Read and respond to written materials **Produce written materials** Solve logarithmic growth issues Solve optimization issues using boundaries and derivatives Participate in a debate as a speaker and as a key player Interpret and produce informative and explanatory texts Know pneumatic and hydraulic circuits applied to the automotive Know sensors and floats Make the calculations and know the characteristic curves of engines **Know the Automotive Multiplexing** Diagnose and repair information and communication systems Diagnose and repair comfort and safety system Diagnose and repair vehicle braking systems with anti-lock braking systems (ABS) Diagnose and repair systems and steering geometry Diagnose and repair light and heavy vehicle assisted suspension systems Diagnose and repair automatic transmission systems Diagnose and repair overfeeding system Diagnose and repair breakdowns in gasoline and diesel engines Diagnose and repair malfunctions of electronic ignition and injection systems of gasoline engines Diagnose and repair diesel electronic injection system malfunctions Know the constitution and operation of the converter equipment for natura gas Analyze exhaust gases and opacity Know the workshop management Know how to budget, give guarantees and customer loyalty Stimulating the use of entrepreneurship, research and innovation techniques

Example of a registered qualification: Cape Verde – Accounting management, level 5. Learning outcomes defined from the broad definition of the qualification to the assessment criteria.

Qualification level 5: AGE001_5: Accounting management.

Qualification registered in the National Qualifications Catalogue: AGE001 5

Broad short definition of the qualification: Carry out accounting, tax, financial and treasury control management in organisations and prepare administrative processes for presentation to public institutions, handling specific information and information management applications.

Units of competency:

- Carry out accounting and tax management
- Carry out financial management
- Carry out treasury management and control
- Organise administrative processes for presentation to public entities
- Handle office computer applications.

Each "Unit of competency" is defined through a range of four to seven more granular "Elements of competency", which in turn are specified in greater detail by "Assessment criteria". This approach to describing the learning outcomes of the qualification cascades from the broad definition of the qualification to the granular outcomes applied as criteria in the context of assessment.

A similar approach is applied in the context of the Competency-Based Approach (Approche par Competences) implemented with some variation in TVET systems of several countries in Africa, e.g.: Cape Verde, Cameroon, Kenya, Morocco, and Mozambique.

2.3.3 Using a learning outcomes approach to recognise prior learning

National qualifications frameworks reflect and support the recognition of learning outcomes acquired in all settings: formal, non-formal and informal.

Learning outcomes-based qualifications contribute to social inclusion by facilitating access of people with limited formal qualifications, and recognising the value of their learning outcomes gained in different settings (work experiences, volunteering and other social activities).

A learning outcomes orientation contributes to enhance recognition of prior learning (RPL), and validation of learning outcomes from non-formal and informal contexts to achieve a part or full qualification or further study. Learning outcomes allows for flexibility because they provide a platform that shows how different learning pathways can lead to comparable outcomes, which can then be recognised.

Learning outcomes are then an ideal platform to promote RPL. When individuals do not have the actual qualification but they have the prior knowledge, skills and experience, this prior learning can be assessed against the learning outcomes of a relevant qualification. Once the individual can demonstrate that the relevant learning outcomes are met, the prior learning can be validated and recognised.

Example from African experiences

Cape Verde: Interconnection of Learning outcomes, recognition of prior learning and national qualifications framework. Source: ACQF Mapping Study.

The national system of recognition, validation and certification of competencies (RVCC – RPL) acquired in different contexts of life and work is one of the statutory components of the national qualifications system and is organically linked with:

National qualifications framework: Through the application of the learning outcomes approach. The primacy of learning outcomes in designing and assessing qualifications enable the access to qualifications by validation and certification of acquired competences.

National Catalogue of Qualifications: Through the right to acquire any of the registered qualifications via processes of recognition, validation and certification of acquired competences, in accordance with the legislative-regulatory framework.

Individual register of qualifications and competences: Registers individual acquired competences and qualifications, and identifies the competences missing to the completion of a certain qualification, thereby contributes to build individual trajectories of adequate training. Currently in the process of legislative regulation.

The application of the learning outcomes approach in the design and description of qualifications is one of the key objectives of the national qualifications framework, as defined in Article 4 of the NQF legal Act (<u>Joint Portaria Nr 10/2020</u>). Further, Article 4 specifies that the application of the learning outcomes approach is necessary to promote validation of non-formal and informal learning, thereby offering citizens in situation of vulnerability possibilities to access lifelong learning and to enter the labour market.

Learning outcomes appear to play a manifold role, namely, in conceptual and technical design of units of competence of professional profiles and in training modules, which together structure qualifications; and in making the access to qualifications socially-minded, and inclusive for citizens with a limited schooling history but tangible life and work experience.

The Decree-Law Nr 54/2014 of 22 September, on RVCC (RPL), pronounces the policy and conceptual underpinnings of this promotion of validation of competences acquired in all contexts of learning. Social and labour market inclusion, economic productivity, valorisation of all types of learning and reinforcement of flexible lifelong learning paths of citizens are the benefits expected from effective implementation of this policy.

"People acquire, with their life experience, namely in professional activities, knowledge and competences relevant for the exercise of many activities. Those competences can and shall be formally certified, and, if necessary, complemented with training adjusted to individual needs, thereby promoting access to higher levels of qualification."

2.3.4 Using a learning outcomes approach to transform recognition of foreign qualifications

A foreign qualification must meet the same requirements as a local qualification to be considered for admission to further study and/or for employment and learning outcomes are increasingly being used to recognise foreign qualifications and periods of study. Learning outcomes provide transparency and availability of information which in turn eases comparison and facilitates recognition.

Since learning outcomes are being used to develop and describe qualifications, they are becoming the key element in recognition of foreign qualifications (UNESCO (2020; 2014); ENIC-NARIC, 2014; Adam, 2015). Learning outcomes relate to and reflect all the other elements of qualifications as they are directly linked to the qualifications level and profile and are subjected to the quality assurance of the country, institution and qualification.

If learning outcomes are considered in the evaluation of a foreign qualification, recognition is more focused on the outcomes and individual competence, instead of only relying on the inputs of the qualification.

Using learning outcomes in recognition is dependent on the availability and quality of the description of learning outcomes. The difficulty is that not all countries have fully embedded learning outcomes into their approaches, and there are countries that have outcomes-based frameworks but they are not being applied consistently.

It is essential, for improved recognition, that learning outcomes approaches be strengthened i.e. linked to level descriptors and quality-assurance. Further, recognition processes will be improved if qualifications are accompanied by detailed documentation, that clearly describes the qualification in terms of learning outcomes, content and structure of the system within which it was issued.

2.4 Quality assurance of learning outcomes

Learning outcomes inform practice and practice informs learning outcomes. Feedback between various players on the effectiveness of learning outcomes can provide important input to identify new skills for new qualifications or to review existing qualifications based on insights gained. For example: a feedback loop (based on learning outcomes) helps to provide information on:

- What the industry/ labour market/ employers require, what the qualification offers and what is assessed to achieve the qualification
- How industry/ labour market/ employers perceive the learning outcomes achieved by qualification holders

Learning outcomes-based feedback loops help to improve relevance and profiles of qualifications and provide important information for nations, qualifications developers and providers. Feedback loops provide important platforms for continuous dialogue and for improving expected learning outcomes based on the achieved learning outcomes.

As qualifications systems in Africa are evolving towards a learning outcomes approach, it is essential that quality assurance systems also move towards ensuring expected learning outcomes and that they:

- Are considered when learning contexts and when assessment procedures are designed
- Are met when a qualification is awarded.

The shift to outcomes means a move away from considering only the traditional quality of inputs such as teacher qualifications and teaching methods to considering the quality of:

- Planning, implementing, reviewing, and improving learning outcomes
- Considering the context, inputs, process and output dimensions while giving special emphasis to outputs and learning outcomes
- Assessment and certification must be clearly included in quality assurance of qualifications

The use of learning outcomes approaches requires significant capacity for implementation. Learning outcomes approaches must be supported by good implementation tools:

- Good technical and methodological tools, handbooks, web resources, training
- Research to identify gaps, challenges, new developments and approaches
- Involvement of labour market players/ sectoral councils

Quality assurance and accreditation agencies often require that learning institutions publish information on their qualifications offerings on their respective websites. This transparency and publication of the expected learning outcomes supports improvement in learning outcomes approaches. The interest of the public (including learners, employers and other interested parties) encourages institutions to ensure that the learning outcomes are visible and understandable.

Learning outcomes as a common method in the ACQF environment will assist the further development of, and increased confidence in, quality assurance standards within the AU.

For more information on quality assurance of qualifications, consult the ACQF Guideline 5 on Quality Assurance in the context of ACQF.

Examples from African experiences

The African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA)¹ define standards and guidelines for internal and external quality assurance of higher education institutions and for internal quality assurance for quality assurance agencies.

Standard 7 of Part 1 of ASG-QA: Internal quality assurance ("Design, approval, monitoring and evaluation of study programmes") stipulates that "The (higher education) institution shall have policies and systems that ensure the design and development, monitoring and evaluation of quality, relevant study programmes that are learning-outcomes based and aligned with the needs of stakeholders: and that contribute to the achievement of its mission, and are commensurate with national, regional and international standards". (ASG-QA: 19).

Several guidelines underpinning Standard 7 concerns the learning outcomes approach and alignment with the national or regional qualifications framework, e.g.:

Guideline a): the institution has policies, procedures and processes for introducing new programmes with learning outcomes and that are competence-based (...)

Guideline e): the institution has policies requiring formulated learning outcomes to be defined and documented for all programmes and courses, and ensures that the programme specifications are accessible to learners (or stakeholders).

Guideline i): the institution ensures that formulated learning outcomes are benchmarked against level descriptors of national or regional Qualifications Frameworks, as applicable.

2.5 Theoretical underpinnings of learning outcomes

Bloom's taxonomy is one of the main theoretical influences on learning outcomes (Cedefop, 2017). Bloom's taxonomy is a set of three hierarchical models used to classify learning into levels of complexity. It was revised in 2001 by changing the nouns to verb form "Remember, Understand, Apply, Analyze, Evaluate, and Create (rather than Synthesize)". It covers the learning objectives in the revised cognitive domain, the psychomotor domain and the affective domain. The cognitive domain is most popular and is often used to structure learning outcomes, activities and assessments.

The learning outcomes orientation has both constructivist and behavioural underpinnings (Cedefop, ibid).

Constructivist

Constructivists emphasise the need for learning outcomes to be open-ended and process-oriented. Constructivists understand learning as a situational activity linked with agency, relationships and social values. This theory focuses on a learner-centred approach where the learner is actively involved in the learning and not just a passive receiver. This theory's influence on describing learning outcomes means that the approach is context-oriented and avoids definitions that are too rigid. The challenge with this approach is reduced measurability.

Two taxonomies, with roots in constructivist theories are Dreyfus and Dreyfus (1986) and Structure of Observed Learning Outcomes (SOLO) (1982). The Dreyfus taxonomy is one of skills acquisition that depicts individual progression through five levels from novice to expert: novice, advanced beginner, competent, proficient, and expert. The SOLO taxonomy is one which describes how an individual's performance and

¹ African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA). https://haqaa2.obsglob.org/african-standards-and-guidelines-for-quality-assurance-in-higher-education-asg-qa/

understanding grows in complexity. The focus is on quality rather than quantity of information. Performance levels include: pre-structural, unistructural, multi-structural, relational, extended abstract.

Behaviourist

Behaviourists emphasise the need for learning outcomes to be objectively measurable and observable. This theory focuses on the external change in behaviour and supports the scientific management and measurement of human behaviour. This theory's influence on describing learning outcomes means that the approach is full-ended, specific, quantifiable and measurable.

Theorists opposing the behaviourist approach criticise this over-simplistic, reductionist process where only observable, measurable outcomes count. Later, it is suggested that, in writing learning outcomes, verb use be unambiguous. However, some theorists believe that, at an advanced level, higher order learning outcomes require open ended tasks and appropriate verbs describing these learning outcomes could include "hypothesise" and "reflect" (Cedefop, ibid).

2.6 Guiding principles

2.6.1 Principles for developing common profiles for learning outcomes-based qualifications

Differences in description of existing learning outcomes approaches can make understanding and comparison difficult. It would be beneficial to the ACQF if a common set of principles were agreed that would make it easier for learning outcomes to be understood.

Table 16. Principles supporting the presentation of learning outcomes

It should present the qualification from the perspective of the learner and what he/ she is expected	It should use action verbs to signal the level of learning expected, normally with an (explicit or implicit) reference to the levels of the national qualifications framework and/or the EQF.	It should indicate the object and scope of the expected learning outcomes. This description should capture the main orientation of the qualification and the depth/breadth of the expected accomplishment. It can, if deemed appropriate, use domains as	It should clarify the occupational and/or social context in which the qualification operates.
to know, be able to do and understand.		defined by NQFs/EQF.	

Table 17 illustrates how the structure could be used in practice.

Table 17. Example of presenting learning outcomes

The verb	The object and scope	The context
- has insight into	 the organisation of health care 	at regional, national and international level
- can critically test	 these insights in the field 	from the perspective of the principles of management and quality assurance of therapeutic interventions
· can give advice	· on policy for	
 is able to take responsibility 	and progress of occupational therapy	
level and can critically	test these insights in the field	and give advice on policy
	- has insight into - can critically test - can give advice - is able to take responsibility ary (414 characters) therapy science has ins level and can critically	 has insight into the organisation of health care can critically test in the field can give advice on policy for the organisation and progress of occupational therapy

Figure 1: Presenting profiles of learning

Source: Cedefop, 2017: 64

Cedefop (2017: 63) suggest common principles for presenting learning outcomes-based qualifications, to be used in qualifications databases and in supplementary documents to qualifications (qualification supplements), to support end-users. Common principles include that they should be used voluntarily; they should not replace existing learning outcomes but assist national relevant bodies to present qualifications profiles in a comparable way.

Cedefop (ibid) also propose certain technical requirements to ensure that national qualifications descriptions are comparable. For example the summary/ extract should be short (500 to 1500 characters), follow a predefined structure and be supported by standardised terminology including a list of action verbs. Figure 1 shows two tables from the Cedefop publication.

In the ACQF context, a similar methodology could be developed to make it easier to present, understand and compare qualifications, even those not covered by the NQF.

2.6.2 Principles for writing learning outcomes

Due to the varied contexts in which learning outcomes are used, there is no single, correct way of approaching the writing of learning outcomes. The way in which the learning outcomes will be used affects the way it will be formulated. Some principles (Cedefop, 2017; Bjornavold, 2021) for writing learning outcomes are shown here.

Scaffolding learning outcomes

While learning outcomes approaches differ across and within countries, increased efforts should be made to develop and strengthen learning outcomes approaches. If the country has a qualifications framework, it is best to use a combination of top-down and bottom-up approaches. The level descriptors/ qualifications levels can assist to cascade and scaffold the qualifications learning outcomes to be coherent with the level descriptor outcomes to ensures that the learning outcomes are pitched at the correct qualifications level.

Verb use in learning outcomes

Learning outcome statements are verb-driven, specific learner actions. The correct verbs must be used to ensure synergy between the level descriptors and the learning outcomes of the qualification. When writing a learning outcome, it is always useful to start with an action verb, followed by the object of that verb, followed by a phrase that provides the context.

The use of measurable, action-oriented verbs means that the resulting outcome statements can be assessed more effectively and consistently.

The best way to prepare for writing learning outcomes is to prepare a list of measurable, action-oriented verbs linked to levels of achievement. Bloom's taxonomy offers a ready-made list of verbs, though this is by no means an exhaustive list.

The key to verb use is knowing what verbs are not suitable for example, vague/ ambiguous verbs that are open to different interpretations and are not easily measurable. Examples of vague verbs include "appreciate", "know", "understand", "learn", "be familiar with", "be aware of", "be exposed to" etc.

Precise verbs are more helpful, action-oriented and measurable. Examples are "analyse", "adjust", "apply", "choose", "define", "describe", "demonstrate", "distinguish between", "evaluate", "identify", "list", "solve" etc.

Perspectives on ambiguous verbs differ according to different schools of thought.

Work backwards from what the learner is required to achieve

The best way to write learning outcome statements is to work backwards from what learners are required to achieve. Once the outcomes have been determined, different categories of verbs can be matched to each outcome. When crafting the outcome statements, the verbs can be selected from the list of verbs that has been prepared.

Links between outcomes, teaching and learning and assessment

Learning outcomes must be observable, measurable and assessable. Describing and formulating learning outcomes must be followed by implementation i.e. there must be an alignment between statements of learning outcomes, the teaching and learning activity and assessment. The key intention of this alignment is to support the movement from statements of expected learning outcomes to achieved outcomes.

The language and context should be indicative of the level at which the learning outcomes will be assessed. For every verb-driven learning outcome statement, teaching/ learning activities and different examples of assessments should flow logically from the verb of the statement.

Language clarity in learning outcomes

To ease clarity of the learning outcome, sentences must be short. For example, only one sentence (with one verb) should be used to describe each learning outcome. Complicated, double-barrelled sentences should rather be split into more than one sentence to ensure clarity. When writing learning outcomes for qualifications modules, it is preferable to not exceed six well-written learning outcome statements per module.

Simple, unambiguous terms must be used so that learning outcomes are clearly understood by learners, facilitators and employers. Jargon must be avoided to keep learning outcomes simple.

Fit-for purpose and achievable learning outcomes

Learning outcomes must be fit for purpose and must be achievable within the time and the resources available.

2.7 Limitations and challenges

Learning outcomes are able to facilitate change but do not necessarily bring about change.

The learning outcomes approach is not yet fully embedded in all countries and may take years to implement. There are many outcome-based frameworks that are not being applied consistently so it is difficult to gauge the true nature of these frameworks.

There are multiple understandings of learning outcomes and competencies within countries, between countries and across borders. This complicates national and international recognition.

The writing of learning outcomes must be fit for purpose and are therefore not always understood by users. For example, the ACQF level descriptors are generalised and brief so that they can be applied across a wide range of countries. The NQFs will have generalised but more detailed level descriptors to guide the allocation of new qualifications or place existing ones.

Learning outcome statements:

- Must assist teaching and learning and need to be written in a way that allows for adaptation and interpretation.
- Must be aligned with assessment.

Learning outcomes on their own cannot capture the full learning process delivered through qualifications.

The implementation of learning outcomes approaches presents with continuing tensions and challenges in terms of behaviourist and constructivist approaches. Learning outcomes should not restrict learning or prevent learners from going beyond expectations. Where learning outcomes are too detailed and specific, they can inhibit the learning process and make it difficult to accommodate innovation and the unexpected.

There needs to be a balance between the prescriptive and descriptive nature of learning outcomes.

3 Learning outcomes use in the ACQF as a policy instrument

3.1 A learning outcomes oriented ACQF

The ACQF promotes and strengthens learning outcomes approaches across the continent.

Developing, describing and using learning outcomes are fundamental building blocks of the ACQF vision and objectives. The ACQF level descriptors are based on learning outcomes, and to ease the comparison and referencing between national qualifications systems and the ACQF, countries are encouraged to use learning outcomes approaches to describe their qualifications and related standards. In this way the referencing process itself will promote the strengthening of learning outcomes approaches across the continent and facilitate qualifications reform in Africa.

The realisation of the learning outcomes orientation of the ACQF requires policy makers and practitioners to embed learning outcomes in national systems to make them effective recognition and transparency tools. The learning outcomes principles are implemented differently in different countries and in different contexts. However, the different reports and thematic briefs developed in the ACQF development phase (ACQF 2021A to F) shows that a learning outcomes approach is being applied in the AU environment.

The African commitment to learning outcomes approaches was reinforced in the Addis Convention (UNESCO, 2014) which was adopted in 2014, and came into force on 15 December 2019, after ratification by more than ten countries. The Addis Convention encourages AU member states to use learning outcomes approaches in recognition of qualifications. This is in line with the pervasive use of learning outcomes on the African continent and in other international contexts.

To improve transparency and recognition of qualifications, the learning outcomes approach must be fully embedded i.e. qualifications need to be expressed in terms of learning outcomes, linked to NQF level descriptors/ qualifications levels, and be fully quality assured.

3.2 Learning outcomes embedded in referencing to the ACQF

Guideline 3 provides information on the referencing criteria for linking NQFs/ NQF levels in Africa to the ACQF.

Referencing Criterion 1 states that: "There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the ACQF". The purpose of this criterion is to compare and demonstrate the compatibility, and define the link between the ACQF level descriptors and each level of the NQF, or qualifications level. The referencing will be possible because countries will be able to explain their own qualifications in terms of learning outcomes. After successful referencing, all newly issued qualifications documents that are part of the NQF or system will contain a clear reference to the relevant ACQF level. To enhance information sharing on referencing outcomes, AU member states will be encouraged to publish their qualifications information on the ACQF Qualifications Platform.

The ACQF support for learning outcomes, RPL and credit systems are strengthened in Referencing Criterion 2 that deals specifically with learning outcomes, RPL and credit: "The national qualifications frameworks or systems are based on learning outcomes principles and related to arrangements for recognition of prior learning (including non-formal and informal) and, where appropriate, to credit systems". Countries referencing to the ACQF will demonstrate the extent to which learning outcomes approaches are used in the different sub-sectors of the education and training system, and that learning outcomes are linked with: qualifications design, assessment, non-formal and informal learning and credit systems.

Further details are available in Guideline 3 (Referencing to ACQF).

3.3 Learning outcomes use in the development of common qualifications profiles or standards

In line with priorities of the African Continental Free Trade Area (AfCFTA) and other AU policies, common continental qualifications profiles will be developed.

These qualifications profiles / standards will be developed by multi-country teams using an agreed methodology and quality assurance to ensure relevance and endorsement across countries in Africa. The profiles will focus on the high labour market, societal and technological value for the continent and will be free for countries to use to design national education and training. The related full qualifications will be awarded by the countries' competent bodies.

3.4 In support of NQF development

The learning outcomes approach is oriented to application at both national and regional level and aims to address the perspectives and needs of both NQF / NQS and the continental ACQF level. The emphasis on learning outcomes will contribute to a common understanding of the ACQF learning outcomes orientation and better application across countries and regions to ease the implementation of the ACQF.

The learning outcomes guideline will remain a living document and will evolve and be enriched to reflect new developments, experiences and needs related with the transformation of learning.

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5 Annexes

Annex 5.1: Glossary/ concepts

The terms in this glossary, unless otherwise stated, can be found in Thematic Brief 1. Concepts and definitions on qualifications and qualifications frameworks available on the ACQF website:

 $\frac{https://acqf.africa/capacity-development-programme/thematic-briefs/acqf-thematic-brief-1-concepts-and-definitions}{definitions}$

African Continental Qualifications Framework: The ACQF is a policy initiative of the African Union and its development process is underway (2019-2022). The current vision for the ACQF is: to enhance comparability, quality and transparency of qualifications from all sub-sectors and levels of education and training; facilitate

recognition of diplomas and certificates; work in cooperation and complementarity with national and regional qualifications frameworks; promote cooperation and alignment between qualifications frameworks (national and regional) in Africa and worldwide.

Competence: The proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

Credit means confirmation that a part of a qualification, consisting of a coherent set of learning outcomes has been assessed and validated by a competent authority, according to an agreed standard; credit is awarded by competent authorities when the individual has achieved the defined learning outcomes, evidenced by appropriate assessments and can be expressed in a quantitative value (e.g. credits or credit points) demonstrating the estimated workload an individual typically needs for achieving related learning outcomes.

Credit transfer means the process of allowing individuals who have accumulated credit in one context to have it valued and recognised in another context.

Education: The process by which societies deliberately transmit their accumulated information, knowledge, understanding, attitudes, values, skills, competencies and behaviours across generations. It involves communication designed to bring about learning.

E-learning: E-learning is an umbrella term that refers to the use of any digital device for teaching and learning, especially for delivery or accessing of content.

Formal learning: Education or training provided in educational institutions, such as schools, universities, colleges, or off-the-job in a workplace, usually involving direction from a teacher, trainer or instructor. Also known as formal education and training

General education (primary and secondary education): See basic education.

Higher education: All programmes of study, or sets of courses of study, training, or training for research at the post-secondary level which are recognized by the relevant authorities of a State Party as belonging to its higher education system. *Source: Addis Convention*

• Tertiary education that is of a higher academic level than secondary education, usually requiring a minimum level of admission and successful completion of secondary education.

Informal learning: Learning resulting from daily activities related to work, family or leisure. It is not organised or structured (in terms of objectives, time or learning support). Informal learning in most cases is unintentional from the learner's perspective. It typically does not lead to certification.

Knowledge: Knowledge is central to any discussion of learning and may be understood as the way in which individuals and societies apply meaning to experience. It can therefore be seen broadly as the information, understanding, skills, values and attitudes acquired through learning. As such, knowledge is linked inextricably to the cultural, social, environmental and institutional contexts in which it is created and reproduced.

Learning outcomes:

- Results of what a learner knows, understands and is able to do upon completion of a learning process.
 Source: Addis Convention
- Statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence.

Level descriptor: A statement describing learning achievement at a particular level of a Qualifications Framework that provides a broad indication of the types of learning outcomes and assessment criteria that are appropriate to a qualification at that level.

Lifelong learning:

- Education through experience and formal or informal studies covering the entire span of one's life. Source: Addis Convention
- Ongoing learning, for personal growth and development, that takes place in all contexts in life –
 formally, non-formally and informally. It includes learning behaviours and obtaining knowledge;
 understanding; attitudes; values and competencies for personal growth, social and economic
 wellbeing, democratic citizenship, cultural identity and employability.

National Qualifications Framework:

- A policy and instrument for the development and classification of qualifications according to a set of
 criteria for specified levels of learning achieved, which aims at integrating and coordinating national
 qualifications subsystems and improve the transparency, access, progression and quality of
 qualifications in relation to the labour market and civil society.
- An instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes clear statements of what the learner must know or be able to do, whether learned in a classroom, on the job, or less formally. The qualifications framework indicates the comparability of different qualifications and line of progression (how one can progress) from one level to another, within and across occupations or industrial sectors (and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework).

National Qualifications System: This includes all aspects of a country's activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, QA processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. One feature of a qualifications system may be an explicit framework of qualifications.

Non-formal learning: Planned learning activities, not explicitly designated as learning, towards the achievement of a qualification or part-qualification; often associated with learning that results in improved workplace practice

Prior learning: Learning and/ or experience that have already been acquired in different ways either formal or informal. *Source: Addis Convention*

Qualification:

- Means a formal outcome of an assessment and validation process which is obtained when a competent authority determines that an individual has achieved learning outcomes to given standards
- The formal result of an evaluation and validation process obtained when the learning results are achieved according to previously defined requirements.
- A registered national qualification consisting of a planned combination of learning outcomes which has a
 defined purpose or purposes, intended to provide qualifying learners with applied competence and a basis
 for further learning and which has been assessed in terms of exit level outcomes, registered on the NQF
 and certified and awarded by a recognised body.
- Planned combination of learning outcomes with a defined purpose or purposes, including defined, applied and demonstrated competence and a basis for further learning.

Qualifications Frameworks: Systems for classification, registration, publication and articulation of quality assured qualifications. *Source: Addis Convention*

Quality assurance:

- An ongoing process of evaluating and enhancing the quality of a higher education system, institutes or programs to assure stakeholders that acceptable standards are maintained and enhanced. *Source: Addis Convention*
- Processes and procedures for ensuring that qualifications, assessment and programme delivery meet certain standards

Recognition: A formal acknowledgement by a competent authority of a party of the value of a foreign education qualification or a validated training. *Source: Addis Convention*

Referencing to ACQF: A process to compare national qualifications frameworks/ qualifications levels with those of the overarching qualifications framework (ACQF). Through a structured referencing process, based on agreed and common criteria and procedures a national multi-stakeholder team defines and establishes the relationship/ link between the NQF/ NQS levels and quality assurance with those of the ACQF. The purpose of referencing to ACQF is to contribute to clarity and mutual trust between national qualifications frameworks

and systems, to comparability of qualifications of different countries, to transparency and informationsharing on qualifications frameworks and systems. *NEW Referencing quideline

Regional Qualifications Framework: A broad structure of levels of learning outcomes that is agreed by countries in a defined and agreed geographical location. A means of enabling one national framework of qualifications to relate to another and, subsequently, for a qualification in one country to be compared to a qualification from another country.

Skills:

- A bundle of knowledge, attributes and capacities that can be learnt and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning.
- Skills means the ability to apply knowledge and use know how to complete tasks and solve problems. In the context of the EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
- Emerging skills: Abilities for which demand is increasing in existing or new occupations.

- Green skills:

- o Green skills are conceptualised at different levels of complexity (generic, specific or highly specialised):
 - Generic green skills help develop awareness-raising or implementation of resource-efficient activities, ecocitizenship, etc.;
 - Specific green skills are required to implement standards and processes to protect ecosystems and biodiversity, and to reduce energy, materials and water consumption;
 - Highly-specialised green skills are required to develop and implement green technologies such as renewable energies, sewage treatment or recycling.
- o Major implications of greening for jobs, education, training and skills include:
 - need to develop environmentally friendly technologies, production processes, products, services, and business models across all sectors of the economy;
 - it changes the way traditional occupations are performed (and taught) and creates new tasks, processes and even new occupations;
 - it creates a demand for new skills and knowledge and the need to upskill and reskill large numbers of people;
 - need to increase environmental awareness in education and training curricula; requires close interaction between education and training systems and their environments to build skills ecosystems in which skills development goes hand in hand with economic, technological and social change.

Stakeholder: A person or organisation with an interest or concern in something. In vocational education and training, stakeholders include government, providers of training, industry, clients and the community.

Technical vocational education and training (TVET): TVET, as a part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development, which may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills and citizenship skills are integral components of TVET.

Validation: Procedure by which a competent authority evaluates qualifications in accordance with norms and standards recognized nationally or internationally. *Source: Addis Convention*

Validation of non-formal and informal learning: means the process of confirmation by a competent authority that an individual has acquired learning outcomes acquired in non-formal and informal learning settings measured against a relevant standard and consists of the following four distinct phases:

- identification through dialogue of particular experiences of an individual,

- documentation to make visible the individual's experiences,
- a formal assessment of those experiences and certification of the results of the assessment which may lead to a partial or full qualification.

Also known as recognition of prior learning (RPL) - is the confirmation by a competent authority that the learning outcomes, that an individual has acquired in non-formal and informal learning settings, has been measured against a relevant standard.