Islamic Republic of Pakistan
اسلامی جمہوریہ پاکستان
Islāmī Jumhūrī-ye Pākistān

NAVTTC

Pakistan National Vocational Qualifications Framework
NVQF

To deliver a skilled and qualified workforce in Pakistan

Version 1

March 2015

Islamic Republic of Pakistan
Islāmī Jumhūrī-ye Pākistān

National Vocational and Technical Training Commission (NAVTTC)

Pakistan
National Vocational
Qualifications Framework
(NVQF)

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Abbreviations used

AT	Apprenticeship Training
BTEs	Boards of Technical Education
CB	Competency-Based
CBT	Competency-Based Training
CBET	Competency-Based Education and Training
CCIs	Chambers of Commerce and Industries
CQ	Certification of Qualification
CS	Competency Standard
CUs	Competency Units
DACUM	Developing A Curriculum
EQF	European Qualification Framework
IAGs	Industry Advisory Groups
IBCC	Inter Board Committee of Chairmen
ISCED	International Standard Classification of Education
LDs	Level Descriptors
M&E	Monitoring and Evaluation
NAVTTC	National Vocational & Technical Training Commission
NCRC	National Curriculum Review Committee
NOSS	National Occupational Skill Standards
NSS	National Skill Strategy
NSIS	National Skill Information System
NTB	National Training Bureau
NVC	National Vocational Certificate
PNQF	Pakistan National Qualification Framework
PNVQF	Pakistan National Vocational Qualification Framework
PVTC	Punjab Vocational Training Council
QCC	Qualification Curriculum Committee
QR	Qualification Register
QSC	Qualification Standard Committee
QSSC	Qualification Standard Sub-Committee
RCC	Recognition of Current Competencies
RPL	Recognition of Prior Learning
SAARC	South Asian Association for Regional Cooperation
SDA	Skill Development Analysis
SDCs	Skill Development Councils

S&C Wing	Standards and Curriculum Wing of NAVTTC
SSCs	Sector Skills Councils
SSC	Standard Setting Committee
TAs	Trade Associations
TEVTAs	Technical Education and Vocational Training Authorities
TLM	Teaching and Learning Material
TP	Training Program
TRSP	TVET Reform Support Program
TTBs	Trade Testing Boards
TUs	Trade Unions
UAE	United Arab Emirates

Preface

Pakistan is facing a variety of challenges in skills development. The existing workforce is largely characterized by low productivity relative to international standards and requirements. More than 70% of workforce is trained in the informal sector and the current TVET (Technical and Vocational Education and Training) system needs to be reformed to produce skilled manpower for National and International market needs. Pakistan National Vocational Qualification Framework (NVQF) has been developed in terms of the National Skills Strategy to promote competency based and demand driven training.

The process for development of NVQF started in 2009 on the basis of a World Bank discussion paper on "NQF Essentials and TVET in Pakistan". NAVTTC then launched TVET Reforms Support Program with the technical assistance of GIZ and funding by European Union, Germany, Netherlands and Norway. First draft of the Framework was evolved in December 2012 after a series of consultations with major stakeholders from public and private sectors. From April to December 2014, the draft was further reviewed on the basis of feedback received from our major implementing partners including TEVTAs, TTBs, BTEs and PVTC besides special contributions from private sector representatives.

The NVQF provides policies and Guideline to ensure the quality of skills development in TVET. It sets out the possible pathways for entry, progress and achievement of a qualification including credit accumulation, equivalences and transfer from one qualification to another. It is designed to facilitate both horizontal and vertical progress by learners within the TVET system. It provides the basis for improving quality, accessibility and recognition of qualifications at national and international levels.

This Framework is an overarching document, which is supported with several operational and procedural manuals in which details of operations and implementation procedure are given. A distinguishing feature of this document is that it covers the requisites of standardization and promotion of qualifications from a local perspective, specifically with reference to establishing equivalences with the informal sector. Besides, the element of equivalence is presently restricted to TVET sector only. In the next phase, National TVET qualifications will be extended to general education as well.

NAVTTC is grateful for the valuable contributions of our TVET partners belonging to public and private sectors for successful completion of this important document.

March 2015

Muhammad Imtiaz Tajwar
Executive Director, NAVTTC

Message from Federal Minister for Education & Professional Training

Pakistan is blessed with a tremendous human resource potential where around 60% of the population is below 30 years of age. This energetic youth is available for employable skills under a credible, reliable and internationally recognized TVET system for converting into a valuable dividend For Pakistan's Economy.

The present era marks resurgence of TVET in Pakistan. Several reform-based initiatives are being taken for development of the technical and vocational education system in collaboration with private sector participation and with technical assistance of our valued development partners from the international community. One of the important components of these reforms has been the development and implementation of this Framework which aims at bringing a paradigm shift by making TVET delivery efficient and marketable across the world.

It gives me immense satisfaction to recognize the outcome of an extensive consultation process with all TVET stakeholders that resulted in launching of the first version of Pakistan National Vocational Qualification Framework (NVQF). I am sure that this Framework will help in the establishment of a coherent national system of technical and vocational education qualifications system and promote Demand-Based training through an efficient assessment mechanism. Effective implementation of the Framework will lead to improvement in the overall quality of TVET in conformity with the National Skill Strategy and in pursuance of the National TVET Policy.

Muhammad Baligh Ur Rehman
Minister for Federal Education and Professional Training

Executive Summary

This first version of Pakistan National Vocational Qualification Framework (NVQF) is a national system of technical vocational qualifications aimed at improving quality of TVET outcomes that meet the needs of industry. It provides a national system of policies and guidelines for classification of qualifications, introduction of progression pathways for vertical and horizontal movement within the TVET structure and achievement of a qualification through credit accumulation, besides promoting recognition of qualifications at national and international levels. The framework also provides guidelines for recognition of prior learning. Key elements of the Framework are summarized as follows:

NVQF Structure

NVQF contains one pre-vocational level as entry route into TVET to cater for majority of the population who had little or no schooling but possess skills needed to be formalized and levelled for achieving the qualification. Levels 1 to 4 lead to certificate and level 5 leads to diploma. Each level of the qualifications is defined by a set of approved Level Descriptors describing the broad outcomes expected of achievers and the complexity of skills and knowledge at that level. They are used as guidelines for qualification developers and for designing of competency standards, assessment, course curricula and teaching and learning materials. Level 6 leads to B.Tech degree which currently exists in the Government Colleges of Technologies while levels 7 & 8 lead to M.Tech and PhD degrees in higher TVET system.

Quality Assurance

NVQF ensures quality through five major interrelated and interconnected systems namely, development and revision of qualifications as per skill demand of the employer and labour market, delivery and conduct of training through accreditation of the training institutions, assessment through a consistent and authentic assessment system, management through introducing quality management system in NVQF implementing organizations and periodic monitoring and evaluation of the whole Framework.

Monitoring and Evaluation

An external monitoring and evaluation system is proposed to ensure that NVQF goals are being met appropriately, the level structure of the NVQF is apt, the interrelated and interconnected systems are working properly as per satisfaction of the employers and labor market and NVQF management system is efficient and effective .

Multiple learning pathways for entry and progression

NVQF comprises of multiple pathways to enter, achieve and progress through NVQF qualifications. It includes institution-based training in both public and private training institutions (formal entry), work-based training including apprenticeships (non-formal entry) and recognition of prior learning/ entry through direct skill assessment (informal entry). NVQF qualifications will thus be achievable and entry and progression in NVQF at the respective level will be available for

individuals coming from different pathways and will depend on attainment of skills after passing through the prescribed assessment system. They will be able to enter appropriate levels of the NVQF or get recognition of limited range of skills applicable to a particular job.

NVQF assessment

NVQF defines assessment as judging an individual's performance against defined competency standards. It proposes competency assessment pathways such as participating in a training course at an accredited training institution, participating in work place training, work place assessment and direct assessment through Recognition of Prior Learning (RPL). Each pathway leads to the same end-point of assessment against the defined national competency standards for qualifications on the NVQF. The end-point of assessment will be either a full qualification certification or a statement of achievement.

Development of NVQF qualifications

NVQF qualifications will be developed in response to labor market demand and national priorities. The steps proposed include skill demand analysis based on DACUM job analysis and standardization of the competencies. These steps are completed in a sequence and once the competencies pertaining to that particular qualification are standardized through development of competency standards, the interrelated steps including development of curricula, teaching and learning materials and assessment will be undertaken.

1 Introduction

The National Skill Strategy 2009-2016 identified specific reforms in the TVET system of Pakistan including reforms related to the development and implementation of a national vocational qualifications framework for Pakistan. The first reform element is to provide relevant skills for industrial and economic development through competency-based and demand-driven training besides reforming the apprenticeship system. The second reform element is to improve access, equity and employability of the workforce by making training delivery flexible, integrating informal economy workers in TVET system and enhancing mobility of skilled workers with improvement of their status. The third reform element is to assure quality by establishing a National Qualifications Framework, registering and accrediting institutes and reforming institute management with training of trainers for competency-based training.

The NSS reform agenda is consistent with global trends (ILO Global Trend Report 2014), which emphasizes on addressing inactivity and skill mismatch in TVET through active labor market policies. Majority of the countries, especially APEC, European Unions and Asia Pacific have developed their national vocational qualifications frameworks.

The Pakistan NVQF provides a coherent structure of policies and guidelines that ensure the quality of delivery and achievements in TVET by providing a national system of defining and classifying qualifications. The main contents of NVQF document can be grouped in to sections such as:

Section 1 describes the purpose, management and structure of the NVQF. It also indicates the rationale for pursuing for NVQF, key role of various agencies in NVQF management and implementation and progression levels. Pre-vocational level 0 is defined to meet the basic TVET entry needs and five levels (Level 1 to 5 from certificate to diploma) to provide a clear pathway in TVET and entry into Higher Education degree levels. In the first phase of NVQF implementation, qualifications from level 1 to 5 have been included. The aspect of equivalences between NVQF and general and higher education sector will be taken up after completion of the initial stages of NVQF implementation. Existing qualifications and equivalence arrangements will continue until replaced by new qualifications.

Section 2 defines qualifications, developing NVQF qualifications and levelling of the qualifications, possible pathways for entry, progress and achievement of a national qualification including credit accumulation, equivalences and transfer from one qualification to another. It also provides guidelines for fair, valid, consistent, sufficient and authentic assessment, curricula development, and recognition of prior learning.

Section 3 briefly outlines the provision of foreign qualifications in Pakistan and relationship with international NQFs.

Section 4 consists of appendices which include NVQF Management bodies' roles and responsibilities, description of NVQF levels and their descriptors, roles and TORs of Qualification Standard and Curriculum Committees, Qualification levelling and credit values, template of a single qualification summary sheet, and rules for conducting NVQF assessment. A glossary of terminologies used in the NVQF document has also been appended.

Separate detailed procedural and operational manuals on each aspects such as "Guidelines on Assessment", "Certification", "Accreditation to deliver assessment services", "Information System", "Equivalences", "Recognition of Prior Learning" etc. supports this NVQF.

2 The NVQF

Purposes of the NVQF

The purposes of the NVQF are to:

- Enhance the quality of vocational and technical education and training by determining clear qualification levels and by creating transparency for employers concerning the qualifications of applicants.
- Improve the alignment between qualifications, training programmes and skill demand.
- Establish a structured national framework for vocational and technical learning achievements based on defined levels and characteristics.
- Standardise the system of defining the characteristics and value of qualifications and the relationships between qualifications.
- Promote upskilling of the population and to facilitate horizontal and vertical movement within the skill development system through expanding pathways for progression and facilitating credit accumulation and transfer.
- Facilitate the Recognition of Prior Learning (RPL) to provide mechanism that allows individuals to gain recognition of the skills that they have.
- Contribute to international recognition of Pakistani qualifications by improving the credibility, portability and recognition of NVQF qualifications nationally and internationally.
- Establish validity and reliability through a comprehensive and coherent quality assurance system that assures the quality of qualifications, training and assessment programmes and certification.
- Support new ways of standardising technical and vocational training.

Management of the NVQF

The NVQF is a national qualification system. The NVQF will be managed though a national management system led by a competent body and constituted to include the interests of industry groups/ employers as well as federal and provincial authorities. At the moment NAVTTC is the managing organization, which may establish a separate "NVQF Support Unit" manned with professionally trained staff.

The key roles of the various agencies in the national management system are as follows:

- National Vocational & Technical Training Commission (NAVTTC): NAVTTC is the normative body at the national level responsible for facilitation, coordination and regulation of technical education and vocational training in the country under NAVTTC Act 2011.
- Provincial Technical Education & Vocational Training Authorities (TEVTAs): responsible for the implementation of the

competency-based training (CBT) programmes.
- Board of Technical Education (BTE) and Trade Testing Boards (TTB) responsible for the operation of NVQF compliant assessment.
- Industry Advisory Groups (IAGs): Industry representative bodies which will support the identification of priority demand; the development of skills competency-standards, qualifications and curricula.

(For further information see Appendix 1 which provides the detailed functions, roles and responsibilities of each NVQF governance and management agency)

Structure of the NVQF

The NVQF is intended to provide a distinct pathway for Technical and Vocational Education and Training (TVET) within the overall national qualifications structure.

NVQF (Figure1) contains one Pre-vocational level designed to meet the basic TVET entry needs of the majority of the population with little or no schooling, and five levels (Level 1 to 5 from certificate to diploma) to provide a clear pathway in TVET and entry into Higher Education degree levels.

As the National Qualifications Framework (NQF) develops including other sectors of education (general and higher education), other pathways and equivalences will develop between TVET and general education enabling horizontal as well as vertical movement between the sectors.

Each Level of the qualifications framework is defined by a set of approved Level Descriptors (Appendix 2). These describe the broad outcomes expected of achievers at that level. The Level Descriptors describe the level of complexity of skills and knowledge at that level. They are used as guidelines for qualification developers and for the design of competency standards, assessment and training programs, course curricula and teaching and learning materials.

The NVQF is the point of active guidance and integration of five interacting systems which, if properly coordinated ensure the achievement of the NVQF purposes- the qualifications development system, the assessment delivery system, the training delivery system, the national skills certification system and the national quality assurance system.

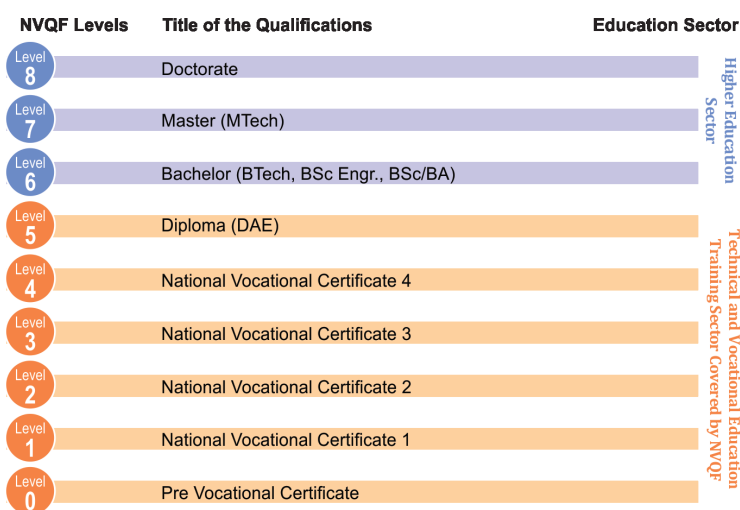| NVQF Levels	Title of the Qualifications	Education Sector
Level 8	Doctorate	Higher Education Sector
Level 7	Master (MTech)	
Level 6	Bachelor (BTech, BSc Engr., BSc/BA)	
Level 5	Diploma (DAE)	Technical and Vocational Education Training Sector Covered by NVQF
Level 4	National Vocational Certificate 4	
Level 3	National Vocational Certificate 3	
Level 2	National Vocational Certificate 2	
Level 1	National Vocational Certificate 1	
Level 0	Pre Vocational Certificate	

Figure 1: National Vocational Qualification Framework Structure

Note: Qualifications from level 1 & 5 have been included in the first phase of NVQF implementation. The individuals have already the option to move for higher degree at Bachelor level. The qualifications for levels 7 & 8 will be progressively developed in the next phase of NVQF.

The issue of equivalences between the NVQF and general education will be taken up in detail after the initial stages of implementation.

The NVQF will be implemented progressively. Existing qualification and equivalence arrangements will continue until replaced by new qualifications. Transition arrangements will be put in place as part of the implementation of each new qualification. The transition arrangements will allow existing trainees to complete the programme that they had started. New enrolments will enter the new qualification programme. The transition arrangements will also ensure the on-going credibility of existing graduates

3 Quality Assurance

The quality assurance in the NVQF will be done through systematic operation under the following five major interrelated and interconnected systems:

Quality assurance of NVQF qualifications

All qualifications will be developed and/ or revised through the prescribed processes and the six steps stipulated in Section 6 of this document (Figure 4) to ensure they meet the skill demand of the employer and that competency standards and curricula are developed with inbuilt assessment plans and finally levelled and registered on NVQF. A summary sheet (Appendix 5) will be prepared for each qualification that contains title, level, total credit, competency units and level and credit hours allocated etc. for ready reference of the stakeholders/ users. NAVTTC will coordinate and manage the development and revision of qualification in collaboration with provincial stakeholders including National Skill Information System (NSIS) and Industry Advisory Groups and prepare and issue the qualification cover sheet.

Quality assurance of the delivery and conduct of training

All TVET institutions, work places and other organizations providing training and/ or assessment services leading to the NVQF will need to be accredited by NAVTTC in collaboration with TEVTAs, PVTC, BTEs and TTBs against the set accreditation criteria. The accreditation manual describes the criteria and minimum standards and requirements for accreditation of training institutions. The maintenance of accreditation status of training institutions will be through the periodic surveillance audit done by the team of NAVTTC certified auditors. The certificate of accreditation may be withdrawn if the institution fails to abide by the prescribed accreditation requirements and the minimum standards.

Quality assurance of assessment leading to standards on the NVQF

PVTC, BTEs and TTBs will be the major assessment and certification bodies within the TVET system in the country. The requirements for accreditation as NVQF Assessment and Certifying body are set out in NAVTTC's Accreditation Manual. Section 5 (c) of this document describes assessment system which supports fair, valid and consistent assessment. Details of the operation of assessment will be in a separate operational manual. NAVTTC will ensure that a pool of trained and qualified assessors is maintained who, while assessing students, use standardized tools to document performance. NAVTTC will implement systems through the PVTC, TTBs and BTEs to ensure that the assessors and they get opportunity to share a common understanding of any competency being assessed to ensure consistency at the national level.

Quality assurance of the management systems

NAVTTC, at the national level, and TEVTAs, PVTC, BTEs and TTBs at the provincial levels are the responsible agencies for the management of the operation of NVQF. These bodies will require to have a coherent organisational quality management system comprising policies, procedures and processes to ensure the continued relevance, appropriateness and effectiveness of the education, training and assessment services offered.

To ensure international comparability NAVTTC will join appropriate international education and training quality assurance networks and participate in the peer review processes of the international quality assurance associations.

Monitoring and evaluation of the whole NVQF

NAVTTC, through periodic external monitoring and evaluation in collaboration with stakeholder institutions, will evaluate the performance of the NVQF and ensure that:

- The NVQF goals are still appropriate
- The goals are being met
- The structure of the NVQF is still appropriate
- the quality criteria for registering qualifications, accrediting training providers and delivering assessment are still relevant
- the management of the NVQF system is effective and efficient
- employers are satisfied with the quality of the graduates with NVQF qualifications

4 NVQF Guidelines
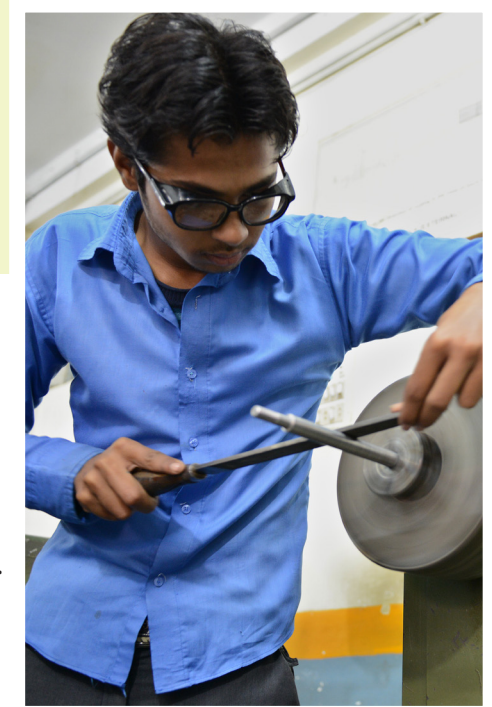
Qualifications

In line with international definitions, an NVQF qualification recognises achievement of outcomes. It says nothing about the process or sequence or timing of teaching and learning. That is the role of curricula. The qualification is not defined by time or by the type of institution or location. It is defined by the competency-standards to be achieved at the required level.

Achievement of the qualification is the formal outcome of the NVQF assessment and validation process. It is achieved when an Assessment and Certification body determines that an individual has achieved the industry-defined competencies to the given standards.

NVQF qualifications must be defined by industry through the Qualification Standards Committee. (See Section 5 Formulation of Qualifications for more detailed information)

Qualification titles

Qualifications that are registered on the NVQF by NAVTTC will be called NVQF qualifications and may be titled as national qualifications. Qualifications that are not registered on the NVQF may not be called NVQF qualifications or use the terms national in their titles. NVQF qualification titles must also include the type of qualification (certificate, diploma) the NVQF level (Level 1-5) and the occupation specialisation. e.g. National Vocational Certificate Level 1 in Hospitality (Cook)

Levels

All NVQF qualifications must be levelled against the NVQF Level Descriptors (See Appendix 4). Levels indicate the relative complexity of the competencies that make up the qualification. Levelling the qualification also provides some information on the relationship between qualifications and their relative value. The levels will be calculated and assigned by the Qualification Standards Committee

Credit

All NVQF qualifications will also have a credit value. The credit value is an indication of the relative volume of learning that has been estimated by the Qualification Curriculum Committee as being necessary to cover the curriculum. One credit is the equivalent of 10 hours of learning. As a result an estimate of 300 hours of learning would be 30 credits (See Appendix 4). Credits will be allocated at the level of the competency-standard / module. Individuals will accumulate the achievement credit record as they successfully achieve the assessment of the competencies / modules. The relevant TTB or BTE will enter the data into the national achievement record information system.

Characteristics
All NVQF qualifications are competency-based and are made up of groups of competency standards developed through job analysis. NVQF qualifications are attained by achieving all the competency-standards for the qualification.

National Vocational Certificate Level 1 to 4
The NVC 1 to 4 prepare students from a semi-skilled person to a professional who possess necessary knowledge of an area of work or study from elementary to comprehensive knowledge as per level requirements, skills required to carry out and complete the tasks as per level complexity, and take the responsibility from limited supervision (Level 1) to full autonomy (Level 4).

Diploma Level 5
The diploma prepares students to become specialist having advanced theoretical knowledge of an area of work or study, possess mental, technical and practical skills to complete complex tasks, and carry out planning & development with complete accountability.

Pathways
NVQF qualifications are defined as objects that are independent of the learning and assessment pathways that lead to the qualification. Individuals may achieve the outcomes through a number of different pathways.

The Pakistan TVET system accommodates four pathways for participation and achievement:
- Off-job institutional based training (Formal System)
- On-job work place training including apprenticeships (Non-Formal System)
- Recognition of prior learning and / or recognition of current competencies (Informal System)

As a result the NVQF accommodates multiple pathways to achieving a qualification- institutional based training in both public and private training organisations, work-based training including apprenticeships and other dual-track arrangements. In addition individuals may gain achievement through recognition of prior learning / or direct assessment (See Figure 2). Individuals may also participate in one or more of the pathways.
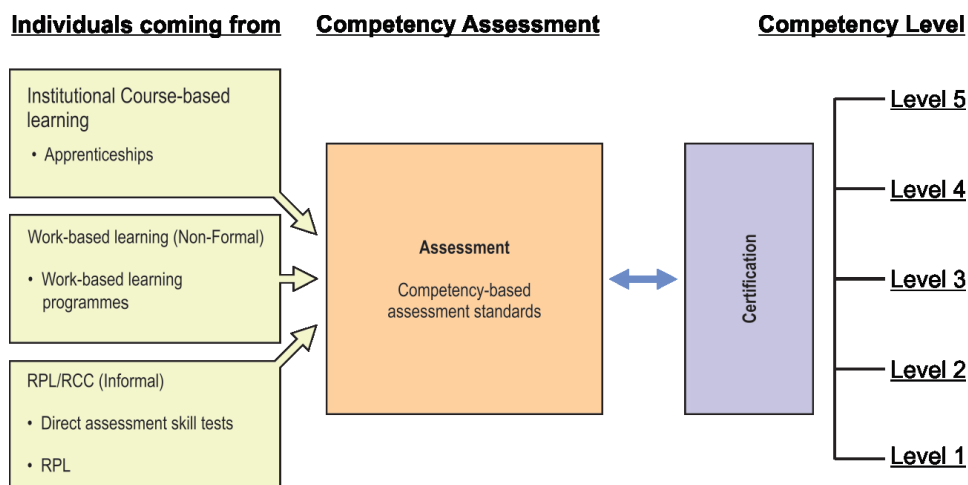

Figure 2: Pathways to achieve an NVQF qualification

Assessment is the key element in standardising the system. All candidates attempting to achieve the same competency-standards will need to submit to the same required assessment of competency   no matter which pathway they are on.

The right side of Figure 2 above shows that the individuals either coming from formal institutional-based system or coming from work-based and non-formal/informal system can achieve NVQF qualifications (which are levelled 1 to 5) after passing through the prescribed assessment system. Institutional-based training follow the curricula and learning material for which standards and curricula exist. Work-based learning following their own programs and training material will need accreditation to comply with NVQF levels. Individuals seeking recognition of prior learning/ recognition of current competencies will need to apply to an accredited institution or assessment organisation for assessment and to have their achievement recognised at the appropriate levels. The individual will also be advised about any remaining competencies they need to achieve the NVQF qualification and ways they may achieve them through further assessment or training courses.

Assessment

Assessment is the key to achieve the NVQF qualification through whatever the pathway an individual is coming from. Hence implementation of NVQF requires a comprehensive assessment system that caters for the needs of all individuals whether they are coming from formal system or informal/non-formal systems. NVQF assessment includes the full range of activities that clarify a candidate's skills, knowledge and attitudes and it includes demonstrations, simulations, presentations, assignments, projects, creations, tests, examinations etc.

All NVQF assessment is competency-based assessment which is the assessment of an individual's performance against defined competency-standards. Individuals are not compared against other individuals. They do not receive scaled grades rather, they are graded as Competent or Not-Yet-Competent.

Competency-based assessment does not need to be controlled by time. There is no need for an individual to complete a course of learning before they can be assessed. Assessment can take place at any convenient time.

That does not mean that individuals should not participate in training courses. Training courses provide a planned and systematic way to learn and practice all the skills that will be assessed and as a result will improve the chances of a person achieving the competency that is the goal.

Competency-based assessment is not limited to just the formal pathway in order to achieve competency. There are several pathways that individuals may take to be assessed for national competency on the NVQF:
- Participating in a training course at an accredited training organisation;
- Participating in work place training
- Work place assessment
- Direct assessment through Recognition of Prior Learning (RPL) or Recognition of Current Competencies (RCC)

Each pathway leads to the same end-point of assessment against the defined national competency standards for qualifications on the NVQF.

NVQF assessment involves the evaluation of evidence to make a judgement as to whether an individual is competent in the performance of defined skills to the required standard. It is about (1) the collection of evidence regarding the candidate's performance against the standard and (2) the judgement of the evidence.

It is usual for candidates to be assessed through a number of different opportunities requiring them to demonstrate the same skill. This can be done through testing the separate skills and / or through integrated assessment where the assessment task integrates a number of skills in a reasonably authentic way.

NVQF assessment that is fair, valid, consistent, sufficient and authentic

Any assessment system needs to be able to demonstrate that the assessment tasks and judgements are fair, valid, consistent, sufficient and authentic. As a result a national system includes moderation processes to be able to provide assurance that the assessment tasks and judgements that are made for any competency are the same as or equivalent to any others that are being administered anywhere in the national system for the same competencies.

Example:

Moderation of assessment monitors the assessments that are being made and provides feedback to the assessors about what the acceptable standards are. It looks at patterns of decisions and provides feedback that reduces variability.

Two TTBs are conducting assessments for the same standards in the same qualifications that are to do with cabinet joinery. The activity will involve the assessors having to decide whether the students have produced the right joinery to the right standard. Each TTB is has two assessors conducting the assessment in different institutions and work places.

How can all parties be confident that the assessors are all making similar judgements about competency? There are a number of possible solutions but the best ones would involve making sure the assessors had been to some training where they learned what was acceptable. They would have evidence guides. The TTBs would have a system to sample a number of assessments from different assessor and to discuss variations with assessors. NAVTTC would have a sampling system that checked on assessments across the country. Feedback would be provided at all levels to gradually improve the assessment judgements.

Consequently NVQF assessment has several aspects:
- Clear statements of the performance standards required
- Assessment packages that include assessment guidelines and tasks to collect evidence of performance against those standards
- Trained and certified competency-based assessors capable of conducting assessment and making the judgement of whether the performance meets the standard
- Assessment and Certification Bodies in the form of PVTC, TTBs and BTEs that manage the training and certification of the assessors, schedules of assessment activities and systems for moderation of assessment at both intra-provincial and inter-provincial levels.
- NAVTTC conducting studies of national patterns of achievement, audits and investigations. This will involve analysis of assessment results for the same qualification from different parts of the country, different institutions and different assessor to compare performance levels. Periodic audits of operational procedures will also take place. Any discrepancies will be investigated further.

Section 6.2 describes four steps to develop the assessment plan for NVQF qualifications. Operational detail of the assessment system/procedures will be in operational manual.

Curricula

The main mandate of the apex body, NAVTTC, is to prescribe qualification and competency standards. Based on those competency standards, NAVTTC and provincial and other agencies develop the competency based curricula, to be finally approved and notified by NAVTTC.

NVQF qualifications will have curricula linked to the qualification. The curricula are designed to provide guidance for systematic training programmes. Institutions and enterprises providing formal training programmes leading to the NVQF qualification will be required to base their training programmes on the approved curriculum.

The curricula will be developed by the Qualifications Curriculum Committee as part of the development of the qualification. The curriculum development will follow the prescribed process described in Section 6.

The Qualifications Standards Committee and the Qualifications Curriculum Committee will gradually replace the existing IAG-NCRC mechanisms as the NVQF is implemented.

Section 6.3 (Figure 6) describes the curriculum development process which includes, development of a curriculum including a sequenced modularised learning programme guide and the development of training and learning materials guidelines

Entry into NVQF qualifications and progression

General principles

Entry and progression in the NVQF will depend on attainment of skills. The conventional concept of entry and progression is for a cohort of students to enter basic or Level 1 training and then progress level by level through the system. This is a valid pathway for people who are within the formal training system and has great value.

However, individuals that have already acquired skills through previous formal, non-formal or in-formal learning including work experience and apprenticeship certificate training will then be able to enter at appropriate levels of the NVQF through the RPL/RCC pathway. In many cases RPL/RCC pathways may not involve individuals that are seeking a full qualification at a particular level but rather will involve individuals that are seeking recognition of a limited range of skills applicable to a particular job or employment opportunity.

As a result the NVQF recognises broad pathways for entry and progression (Figure 3). The first pathway is the conventional training pathway used by the formal institutional training and apprenticeship tracks. This pathway is, as it always has been, most applicable to individuals that are progressing through formal training systems. It provides the pathway for progression

through systematic training programmes and results in the individual achieving the whole qualification before moving to the next higher level.

The second pathway accommodates individuals that have acquired skills through informal learning. It allows the individual
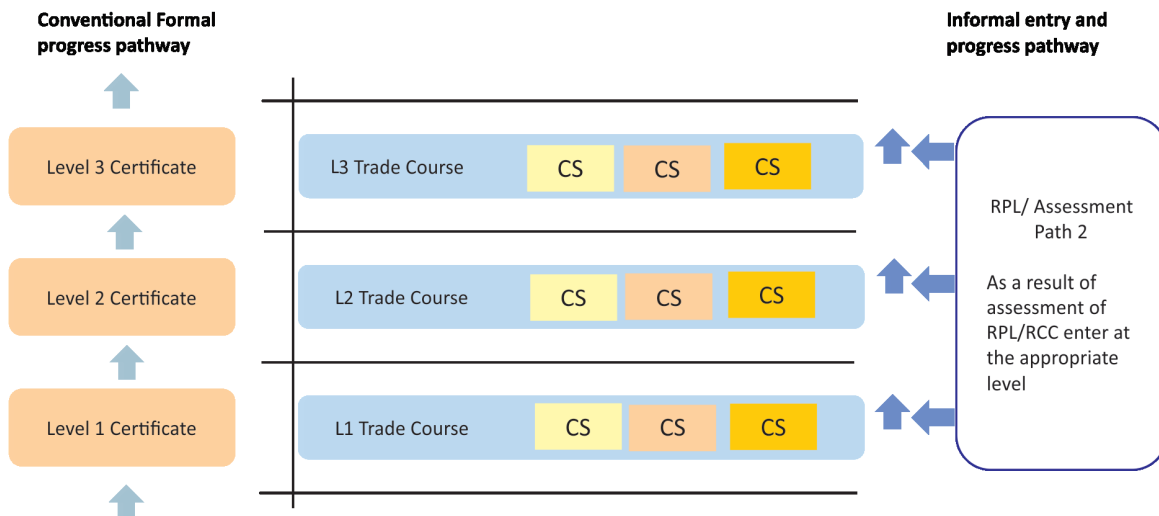

Conventional Formal progress pathway

Informal entry and progress pathway

Level 3 Certificate | L3 Trade Course | CS | CS | CS

Level 2 Certificate | L2 Trade Course | CS | CS | CS

Level 1 Certificate | L1 Trade Course | CS | CS | CS

RPL/ Assessment Path 2

As a result of assessment of RPL/RCC enter at the appropriate level

Figure 3: Pathways for entry and progression in the NVQF

to have their skills assessed and entered into their Record of Achievement. Their achievement then allows them to enter the NVQF at the appropriate levels.

Example:
A man in his early 40's has worked as an auto-mechanic for 25 years. He has had no formal training or certification but he is a skilled mechanic applies to have recognition of his skills through RPL/RCC. As a result of the assessment he is issued with a Record of Achievement that lists the competencies that he has. This allows him to enter further training at the appropriate level without having to start at the lowest level and work his way up. It may also assist him to gain better employment.

Recognition of Prior Learning/Recognition of Current Competencies
The NVQF recognises Recognition of Prior Learning (RPL) and / or Recognition of Current Competencies as legitimate forms of assessment, which, when implemented fully, will provide a mechanism for many individuals who have skills that have not been certified to gain recognition for those skills.

The two terms have slightly different meanings but taken together provide the opportunity for accelerated recognition.

RPL is the process in which the individual's previous learning outside the formal system is recognised as sufficient to meet the necessary standard of current competency/ies and as a result the individual can be given recognition of those skills and the appropriate certificate can be issued.

RPL usually refers to a process that examines evidence of past learning and experience. The candidate seeking RPL is required to provide evidence of past learning and the use of the skills that are the focus of the assessment. Presentation of a portfolio that shows the evidence is usually required. It may include qualifications that have been achieved in the past that provide evidence of the acquisition of relevant skills or of qualifications that may be comparable or equivalent, records of employment, references from employers attesting to skill competencies.

The process usually includes an interview a certified assessor from the relevant PVTC or TTB or BTE as appropriate.

RCC is the process in which the competency/ies currently possessed by an individual can be assessed against the relevant unit of competency and may be given recognition through the issuance of appropriate certificate.

Process
The RPL/ RCC processes will be managed by the appropriate Assessment and Certification bodies. Individuals seeking RPL/ RCC assessment will apply to the Assessment and Certification body through an accredited training and/or assessment organization.

The assessment process will be conducted by a certified assessor and will involve:

Presentation of evidence that the applicant has skills that meet the competencies that are being sought. This would include:
1. Evidence of any earlier training and/ or,
2. Record of employment and use of the skills and/ or
3. Reference from employer or other reliable person, knowledgeable in the skills attesting that the individual has the skills and/ or.
4. An interview with the assessor allowing the individual to explain the skills they have in relation to the competencies they wish to have certified
5. And possibly a challenge test if the assessor needed to confirm the truth of the evidence from the other sources. The challenge test could be a practical demonstration, a written or oral test, or an assignment.

The Assessment and Certification body, in consultation with appropriate accredited training organisations, will schedule RPL/RCC assessments are appropriate times to allow the efficient assessment of groups of individuals in the same areas of specialisation. Results will be recorded in the NVQF information system and the certificates and Records of Learning will be issued

Equivalences
The NVQF will provide information on the equivalences between qualifications.

In general terms qualifications at the same level of the qualifications framework in similar fields may be understood to be comparable. However, identifying qualifications or parts of qualifications as equivalent means that one qualification or some of its parts can substitute for the equivalent parts in the other qualifications. This arrangement allows learners to accelerate the acquisition of qualifications within the NVQF. As the NVQF qualifications become recognised by other countries as equivalent there will be opportunities for international cross recognition.

Identification of equivalences between parts of qualifications within a single qualifications framework is the most common activity. As a result there are 3 common types of equivalence recognised within the NVQF:

Horizontal transfer
This occurs where two qualifications at the same level have some common competency-standards. As a result the individuals that achieve those competency-standards are credited with that achievement in both qualifications. This reduces the amount of additional learning needed to achieve the second qualification. It may be added here that generic and job specific competency standards of each trade may match but core/ specific occupation competencies may differ and may not be horizontally transferred. For example, in Beautician trade, Beauty Therapy (level2) and Skin Care (Level 2) qualifications have same common competency standards such as "Managing the Saloon", "Performing Manicure and Pedicure" which are horizontally transferable and can be credited for achievement.

Vertical overlap
This can occur where a qualification at a higher level has some common competency-standards with a qualification at a lower level. As a result individuals in the lower level will have gained credit towards the higher level qualification. This reduces the amount of additional learning needed to achieve the second qualification. For example, in the Hotel Industry trade, "Chef De Partie (Level 3)" and "Cook (Level2)" qualifications have common competency standards such as "Operation and coordination in the kitchen", "Preparation of various dishes" etc. which can be vertically transferred and can be credited for higher level achievement.

Bridging/Second Chance
This is where assessment in recognition of prior learning allows (a) entry to an advanced programme; or (b) allows for some credit towards an advanced programme; or (c) identifies a skills gap requiring credits from a bridging programme.

The "Qualification Sheet" (Format at Appendix-5) prepared for each qualification and endorsed by the Qualification Standard Committee and Qualification Curriculum Committee would provide necessary detail of each qualification in terms of level, credit hour, competency standards as a reference for above mentioned three types of equivalences.

Equivalence links with the general and higher education qualifications framework will be progressively developed by NAVTTC. In collaboration with general education and higher education sectors respective authorities. The present structure of technical education for progression from Level 5 Diplomas (3 years DAE course at polytechnics) to Level 6 Bachelor degree (B.Tech at Colleges of Technologies) would remain in force.

Certification of achievement
The NVQF has two forms of certification.

The first, known as the Record of Achievement, is a regularly updated listing of the competency standards that have been achieved by an individual.

The second form of certification is the Certificate of Qualification. This certificate is issued when an individual has achieved all the competencies required for the qualification.

The certificates will be issued by PVTC, TTBs and BTEs. All certificates will comply with the NVQF national standardised format.

5 Developing NVQF Qualifications

Qualifications will be developed in response to labour market demand and national priorities. Hence skill demand analysis is the first step in the qualification development process followed with DACUM job analysis and standardisation of the competencies (Figure 4). The above mentioned three steps are followed in a sequence and once the competencies pertaining to that particular qualification are standardized i.e. the competency standards developed, the interrelated linear processes comprising the development of curricula, teaching and learning materials and assessment are undertaken.

Each competency standard of a particular qualification consists of competency units which are elaborated in terms of learning outcomes under performance criteria and knowledge & understanding. It also consists of NVQF level assigned, credit hours allocated, requirements for progress and achievement and pathways & equivalences. The competency standard then forms the basis for curriculum and teaching and learning material development and finally the assessment plan and its requirements.

Skill demand analysis

↓

DACUM Job Analysis

↓

Standardisation of Competencies

Qualification

Define
• Competency Units
• Structure
• Level
• Credit
• Requirements for progress and achievement
• Pathways and equivalences

Assessment

Define
• Assessment plan and requirements
• Assessment task validation
• Evidence guidelines
• Post-assessment moderation system
• CBA packages

Curriculum

Define
• Modules
• Learning units and elements
• Delivery sequence
• Guidelines for instructional hours
• Learning setting and equipment needs

Curriculum

Define
• TLM package catalogue
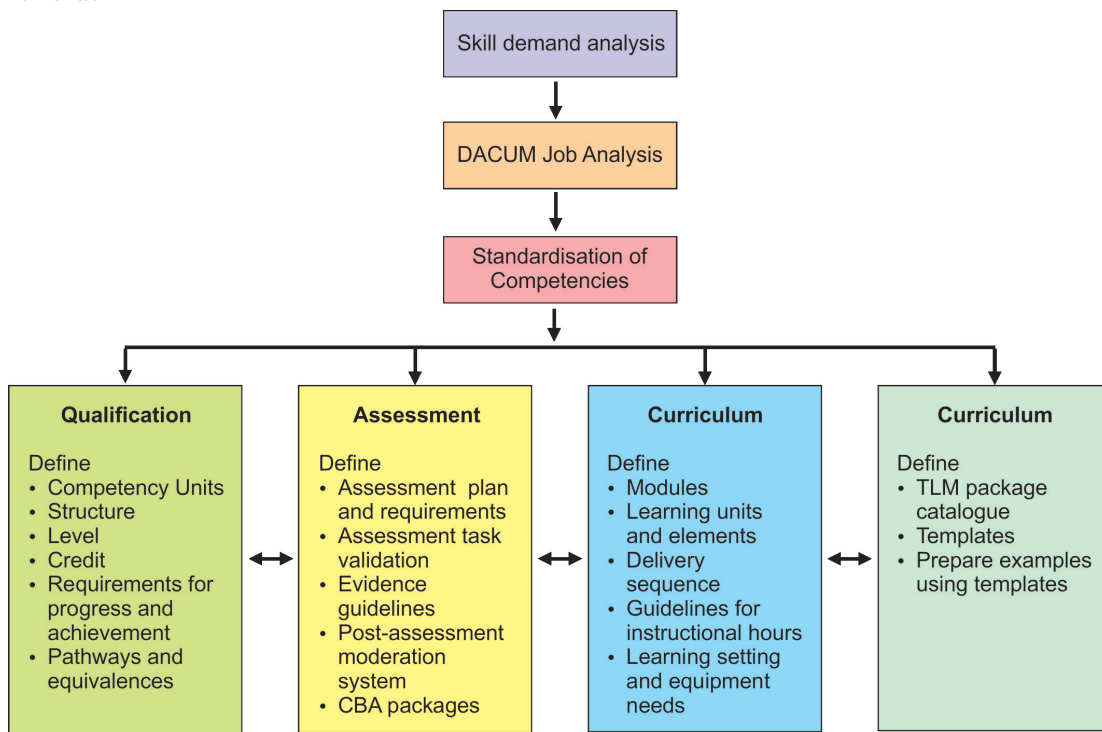• Templates
• Prepare examples using templates

Figure 4: Overview of components in the development of NVQF qualifications

NAVTTC will oversee the process of developing and registering a qualification, development of assessments, formulation of the curriculum and development of the TLMs. Industry will be involved at all stages and will engage in the process though (1) the involvement of industry representatives in the Qualification Standards Committee (See Appendix 6 for TORs) and (2) in the Qualification Curriculum Committee. (See Appendix 7 for TORs). These committees are ad-hoc committees and will be constituted by NAVTTC in response to demand. The committees will include industry experts and specialist educators.

Formulation of Qualifications

A qualification registered on the NVQF is a national qualification which can be attained by any individual that meets the defined standards. It is intended to be credible and acceptable within the employment market with the backing of both the relevant industry and the Government of Pakistan.

To that end the development and documentation of a NVQF qualification will follow a prescribed process (Figure 4) and will consider a range of issues that not only define the characteristics internal to the qualification but also indicate its relationship with other qualifications.

This process will be coordinated by NAVTTC with the relevant Industry Advisory Groups (IAGs). Skills demand information will be provided by the National Skill Information System (NSIS) and the IAGs. In the normal course of events the Qualification Standards Committee will not develop single isolated qualifications but will define a set of interrelated qualifications. This will support the development of interconnections and equivalences that facilitate vertical and horizontal progression through the NVQF.
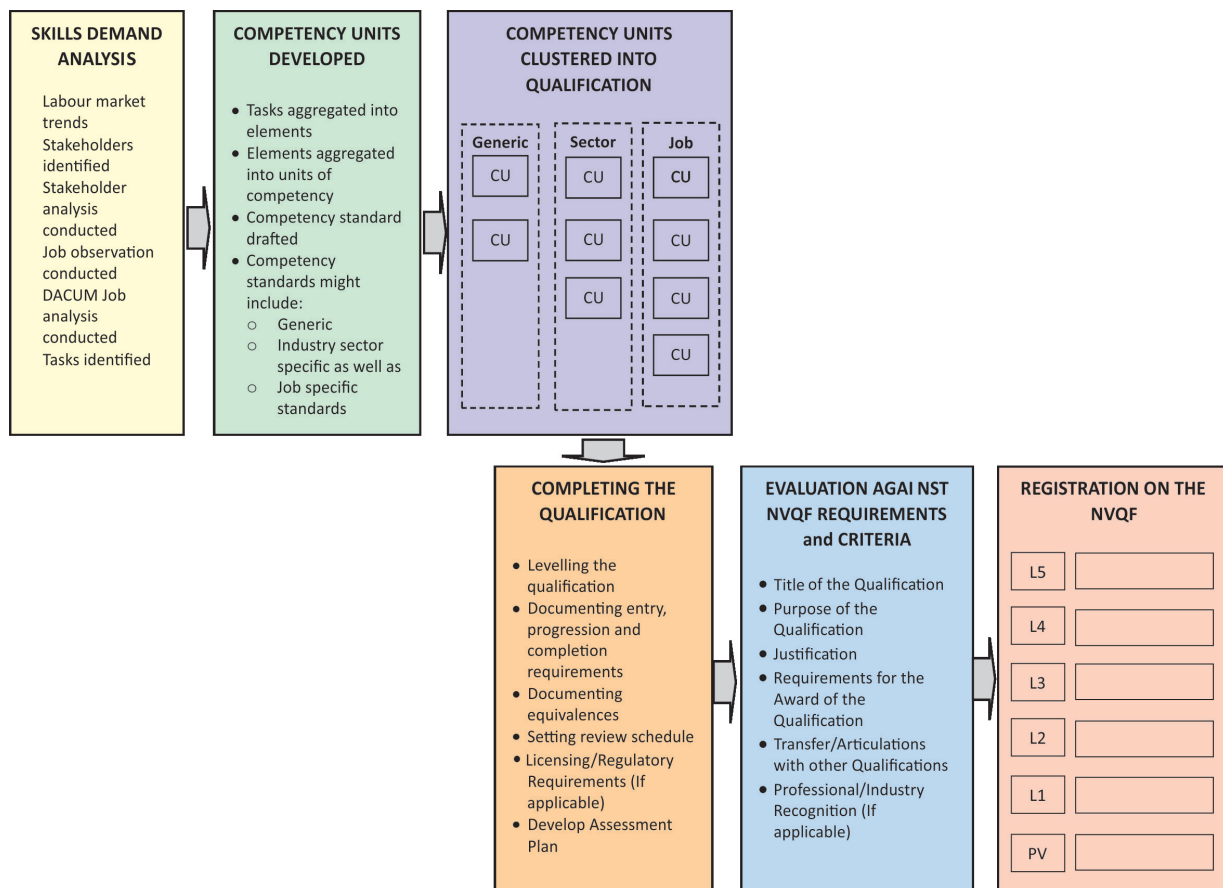

Figure 5: Steps in the process of formulation of a NVQF qualification

The competency-standards that result from the process of standardisation will be clustered into a qualification. A qualification will include the competencies relevant to the occupation and level. However, the committee may also include competency-standards that are relevant to the wider context of the industry sector. It may also consider the inclusion of generic competencies relevant to the occupation and level such as literacy or numeracy.

Level and Credit

All NVQF qualifications will be assigned a level and a credit value.

The level refers to the relative complexity of the competency-standards while the credit value is an indicator of the relative volume of learning.

Levelling the Qualification

Each qualification will be levelled (i.e. they are assigned an overall level 1 to 5) after each competency standard is judged and given a level against the respective NVQF Level Descriptors under knowledge & understanding, skills and responsibility. (Appendix 2) and then an overall level of the qualification is calculated.

In other words, levelling will be conducted systematically and without pre-conceptions. Although the sequence of learning may mean that something is learned after something else, it does not mean that the second item is more complex than the first. At the same time it should not be assumed that all the competency standards will be at the same level. Any qualification will include competency-standards at more than one level. For example a NVQF Level 2 qualification is likely to include competency-standards at Level 1 and at Level 2 and possibly at Level 3. These would be described in the Qualification Sheet (Appendix-5).

Competency Standards	Level
Familiarisation with Terminologies & Tools	2
Develop Design Concepts	3
Analyse Cost Effective Solution	2
Editing of Photos and Development of Graphics	2
Prepare Pre-Press Job	2
Perform Software/ Hardware Maintenance	1
Communicate with Others	2
Duties and rights at the workplace	2

Figure 6: Example- National Vocational Certificate Level 2 in IT (Computer Graphic Design (Print Media))

The exercise to Level the qualification is conducted by the relevant Qualification Standards Sub-Committee. It is an evaluative exercise but the process includes a systematic consideration of all the competency-standards against the Level Descriptors individually and then a summative exercise that recognises the range within the qualification but also provides a single balanced level for the particular qualification. (See Appendix 4)

Crediting the Qualification

The credit value of the qualification is a measure of the volume of learning. It is calculated by the Qualification Curriculum Committee. The NVQF uses a standard credit value of 1 credit= the equivalent of 10 hours of learning. As a result for example an 800 hour course has a credit value of 80 credits.

The Qualification Curriculum Committee provides estimates of the instruction hours for the various parts of the curriculum. These are then used to calculate the credit value for each competency-unit and also for the qualification as a whole. A summary of the qualification details is registered on the NVQF in a standard format (Appendix 5).

Developing Assessments for NVQF qualifications

The description of assessments is part of the description of the competency-standard. They match the standard and require the same performance standards that are defined in the competency and, as a result clarify the standard for trainers, assessors and learners.

In addition to formulating the qualification the Qualification Standards Committee (Appendix 3) will also develop the assessments for the qualification.

There are two types of assessment. The first, assessments for National Competence, are defined by the Qualification Standards Committee and are conducted under the supervision of certified assessors. The second, practice or formative assessments, are part of the teaching and learning process and take place during training and are conducted by the tutors. Practice/ formative assessments should be based on the assessments for National Competency to give the learners the best chance of achieving competency (See Appendix 6 Conduct of NVQF Assessment).

It is also important to note that the NVQF supports modularised learning. As a result the practical and theoretical elements need to be integrated in the assessments rather than being completely separate.

The NVQF also allows individuals to present themselves to be assessed for Recognition of Prior Learning (RPL) / Recognition of Current Competencies (RCC). This pathway allows individuals that may have gained skills through informal learning to be assessed against the standards and able to gain recognition and the same certification of those skills as the candidates coming through other pathways.

The process for developing National Competency Assessments involves several steps:

Step 1: Analysis of the competency standards to identity the required performance and standard for both the performance and knowledge components

Step 2: Development of an assessment matrix of the most appropriate types of assessment

Step 3: Develop the assessment instruments- tasks, performance, and context.

Step 4: Consolidate into packages that can be integrated or disaggregated into sub-components at the level of the competency standard.

All NVQF qualification will have a moderation plan to ensure that the assessment judgements for that qualification are consistent across all the providers that are delivering National Competency Assessments.

Formulation of curricula

Approved curricula provide the key guidance in relation to teaching and learning. The curricula includes descriptions of learning modules and outcomes, recommends the sequence of learning and provides guidance regarding hours of instruction and the learning context. It is the key instrument in supporting standardised formal training. The curriculum is developed by the Qualification Curriculum Committee in a process related but parallel to the development of the qualification. The formulation of the curriculum includes, development of a curriculum including a sequenced modularised learning programme guide and the development of training and learning materials guidelines.
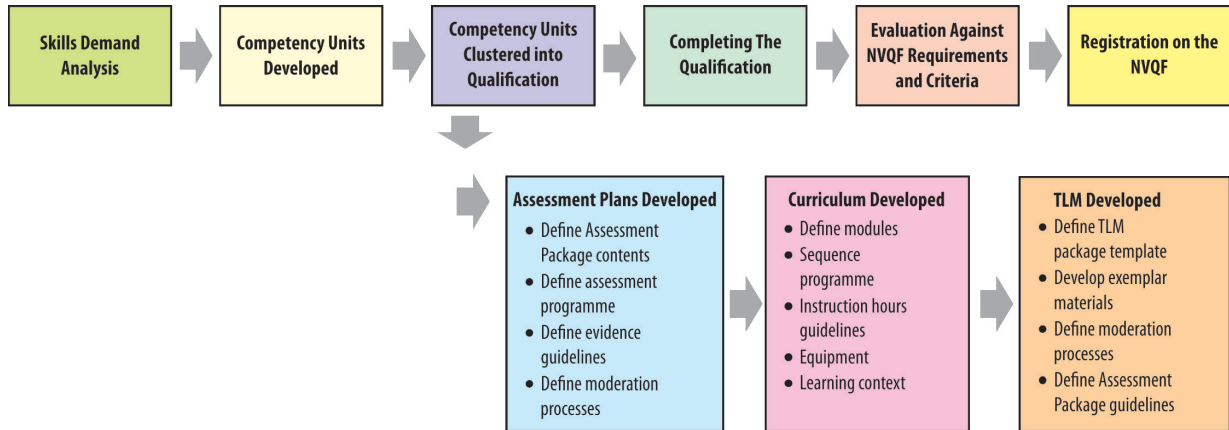

Figure 7: National Qualifications Curriculum Development Process

6 Provision of Foreign Qualifications in Pakistan

TVET qualifications from other countries are delivered in Pakistan. The provision of good quality, legitimate foreign qualifications helps up-skill the population of Pakistan.

However, organisations marketing or providing training that leads to foreign qualifications must not make claims that the foreign qualification is equivalent to any level of the NVQF or equivalent to any particular qualification on the NVQF without having had the foreign qualification reviewed by the NAVTTC against the standards of the NVQF.

The organisations that are providing foreign qualifications must provide documentary evidence to NAVTTC that:
  a. The foreign qualification is legitimately recognised under the qualifications framework of the source country, and
  b. The organisation providing training for the foreign qualification in Pakistan is actively linked to the quality assurance system of the foreign qualification. This can be either (1) in the case of a franchised provider being under the quality assurance system of the partner organisation in the source country, or (2) as a member or associate member of an international association of specialist TVET providers where the association has been accredited by an internationally recognised quality assurance body specialising in multi-state cross-border provision, or (3) as a stand-alone organisation with independent accreditation through the quality assurance system of the source country

NAVTTC will assist the process though developing dialogue with qualifications authorities and bodies in key foreign countries to clarify and notify the appropriate foreign quality assurance bodies related to key international qualifications.

Pakistan National Vocational Qualifcations Framework (NVQF)
National Vocational & Technical Training Commission (NAVTTC)

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7 Relationship with International NQFs

The Pakistan National Qualifications Framework, including the NVQF, has been developed on the pattern of the European Qualifications Framework (EQF) to facilitate alignment with the EQF and other key national and regional qualifications frameworks.

NAVTTC, as the TVET apex body in Pakistan, is the contact point for negotiations with national and regional qualifications frameworks to establish recognition of NVQF qualifications, to establish equivalencies, and to move towards mutual recognition of qualifications. Representatives of provincial authorities and relevant industry sector groups will also participate at relevant points.

Priority will be given to establishing links with the EQF and the frameworks of key individual member states, SAARC regional framework and with the individual member countries, the qualifications frameworks of the UAE and other Middle Eastern countries.

NVQF Management Bodies' Roles and Responsibilities

Existing Arrangements

National Vocational & Technical Training Commission (NAVTTC)

NAVTTC is a normative body at the national level responsible for facilitation, coordination and regulation of technical education and vocational training in the country under the NAVTTC Act of 2011. The following activities and processes are managed by NAVTTC for effective implementation of NVQF:

Linkage with Industry
NAVTTC establishes and maintains linkage with industry in the form of Industry Advisory Groups (IAGs) having representation of Trade Unions, Trade Associations, Chambers of Commerce and Employers. This forms a platform for consulting industry in the development of competency skill standards, qualifications and curriculum at different stages. The linkage is also extended to professional groups/bodies of the industry to seek their input in development of the NVQF. NAVTTC is presently engaged in revising linkage with the private sector by establishing sector industry bodies in replacement of the IAGs-NCRC mechanism.

Policy Formulation for Development of Qualifications, Competency-based Assessments Curricula, Teaching & Learning Material (TLM)
NAVTTC will formulate policies and strategies in consultation with TEVTAs, PVTC and Boards of Technical Educations (BTEs) for effective implementation of NVQF. Qualifications, Competency-based Assessments, Curricula, Teaching & Learning Material (TLM) will be developed by NAVTTC in consultation with industry, academia, TEVTAs and BTEs. The objective of this standardization is to bring uniformity in instructional material across the country.

Approval of National Competency Skills Standards, Qualifications and Competency Based Training (CBT) Curricula
Being a regulator for ensuring quality in implementation of National Qualifications and Curricula, NAVTTC will approve the NVQF Qualifications and CBT Curricula through the forums of sector industry bodies.

Registration of Qualifications on the NVQF and Maintenance of Qualification's Register
National vocational qualifications must be placed on the NVQF and aligned with the relevant levels prescribed in NVQF. Therefore, they need to be registered according to NVQF's criterion and procedures. Qualifications registered will be maintained on the Qualification's Register which will act as a public record of all NVQF qualifications and qualification pathways, accrediting authorities, organizations authorized to issue NVQF qualifications and all NVQF qualifications issued.

Capacity Building of Trainers
For effective implementation of NVQF, it is necessary that capacity building of trainers should be carried out in pedagogy and in the newly developed CB curricula and assessment arrangements. NAVTTC, in this regard, shall develop plans for training of trainers in consultation with TEVTAs and PVTC. These training plans will be executed at TEVTAs and PVTC level and will be monitored by NAVTTC.

Pakistan National Vocational Qualifcations Framework (NVQF)
National Vocational & Technical Training Commission (NAVTTC)

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Determine Equivalency of Qualifications

NAVTTC shall determine equivalency of qualifications in a particular discipline or across the disciplines on the basis of NVQF criterion, within the TVET sector. It will also determine international equivalencies and mutual recognition.

Recognition of Prior Learning (RPL)

NAVTTC has devised policy guidelines for RPL in consultation with stakeholders. The assessment for RPL shall be conducted by organizations accredited by NAVTTC to deliver NVQF assessment services. NVQF operational manuals will provide the guidelines and standards for the conduct of RPL to be managed in accordance with the RPL policy issued by NAVTTC under NVQF.

Certification of the achievement of a Qualification

NAVTTC shall maintain the record of all the NVQF certificate holders. The certificates shall bear an identification number which will be verified by both the institution and PVTC/BTE/TTB. The detailed record of achievement details shall also be listed on the Record of Achievement. Verification of NVQF certificates shall be conducted by NAVTTC.

Accreditation

Institutions and organizations which offer training and / or assessment services leading to qualifications on the NVQF will need to be accredited according to the NAVTTC established criteria. The purpose of this accreditation will be to ensure quality in delivery of NVQF qualifications. The list of institutes accredited under NAVTTC will be official notified on annual basis, for general awareness.

Technical Education & Vocational Training Authorities (TEVTAS) and Punjab Vocational Training Council (PVTC)

Implementation of Competency Based Curricula

TEVTAs shall be responsible for the implementation of CBT programs at the training centers under their administrative control. Before implementation of CBT curricula TEVTAs shall ensure that accreditation for a particular CBT program has been acquired and the training center has been accredited with NAVTTC. M&E of training delivery will be done by TEVTAs.

Management of Credit System

Transfer of credits acquired through regular instruction or RPL shall be managed by TEVTAs and PVTC in accordance with the guidelines issued under NVQF. TEVTAs and PVTC shall facilitate the training centers and shall ensure fool proof mechanism of awarding and transferring of credits.

Apprenticeship Training

TEVTAs and PVTC shall be responsible for conducting apprenticeship training as per policy of NAVTTC and award of certification shall be made in accordance with NVQF criterion.

Recognition of Prior Learning (RPL)

TEVTAs and PVTC shall be responsible for implementing the policy guidelines for RPL issued under the NVQF. Assessment for RPL shall be conducted through accredited training centers. Guidelines and standards for RPL to be managed at institution level shall be issued by the NAVTTC in accordance with the RPL policy issued by NAVTTC.

Registration

TEVTAs and PVTC shall be responsible for registration of training centers both in public and private sectors and record of registered training centers shall be published for awareness of public.

Board of Technical Education (BTE) and Trade Testing Boards (TTB)

The role of these bodies is to conduct examinations and to facilitate assessment at the end of delivery of training programs. They shall be responsible for the following processes and activities for effective implementation of NVQF:

Implementation of Competency Based Curricula

PVTC, BTEs and TTBs shall be responsible for conducting NVQF examination and assessment of training programs developed under NVQF. Policies issued by NAVTTC and TEVTAs shall act as guidelines for BTEs and TTBs.

Conducting Competency Based Assessments

PVTC, BTEs and TTBs shall be also responsible for organizing and conducting competency based assessments. In this regard, industry and trade associations can also be consulted.

Management of Credit System

The credit value of a qualification will be established by the Qualification Curriculum Committee as part of the formulation of the qualification. Credit achievement by individuals will be recorded in the information systems by the PVTC, BTEs and TTBs as part of the update of achievement records after assessment as per the NVQF.

Affiliation

The process conducted by BTEs, TTBs and PVTC Lahore that gives permission for an institution to deliver specified programmes under the authorized bodies specified criteria.

Punjab Vocational Training Council (PVTC), Lahore

PVTC is an autonomous corporate body established by the Punjab Government through PVTC Act of 1998 to provide technical and vocational skills to the youth including girls and boys with certain minimum academic qualifications enabling themselves and their families economically in a dignified manner. PVTC will be responsible for registration and affiliation, implementation of competency based curricula, conducting competency based assessment, management of credit system and in recognition of prior learning (RPL) / recognition of current competencies (RCC) assessments and certification.

Pakistan National Vocational Qualifcations Framework (NVQF)
National Vocational & Technical Training Commission (NAVTTC)

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NVQF Level Descriptors

Description of the outcome profile of each level of the NVQF

Level	Descriptors			
	Knowledge and understanding	**Skills**	**Responsibility**	**Qualification type**
Level Pre-vocational	Limited knowledge or understanding to carry out structured tasks and activities in familiar contexts	Carry out a series of familiar tasks and activities with guidance	With appropriate guidance take responsibility for the outcomes of structured activities	Pre-Vocational Certificate
Level 1	Elementary knowledge of an area of work or study with safety procedures	Limited practical skills required to carry out single-process tasks and solve routine problems using simple rules and tools	Work or study under direct supervision with limited autonomy	NVQF Certificate Level 1
Level 2	Basic knowledge of readily available facts, processes and general theory of an area of work or study	Basic practical skills required to complete tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for prioritising and completing tasks in work or study under indirect supervision with some autonomy and adapt own abilities when solving problems	NVQF Certificate Level 2
Level 3	Broad theoretical knowledge and interpretation of available information in relevant contexts within an area of work or study	Broad range of well-developed mental and practical skills required to plan and complete multi-stage tasks and generate optimum solutions to specific problems in a field of work or study	Plan and manage own work and/or supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities	NVQF Certificate Level 3
Level 4	Comprehensive theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	Comprehensive range of mental, technical and practical skills required to complete complex tasks and develop creative solutions to abstract problems	Exercise full responsibility for management and supervision in contexts of work or study activities within well-defined boundaries and where there is unpredictable change Provide inputs to review and develop performance of self and others	NVQF Certificate Level 4
Level 5	Advanced theoretical knowledge with analytical interpretation of an area of work or study and an awareness of the boundaries of that knowledge	Specialist level of mental, technical and practical skills required to complete variable complex tasks and develop innovative solutions to abstract and complex problems in an advanced field of work or study	Carry out planning and development of courses of action with complete accountability Exercise management and supervision in work or study activities where there is unpredictable change Review and develop performance of self and others	NVQF Certificate Level 5

Qualification Standards Committee

Role
To develop qualifications for occupations within a given sector following agreed procedures in order

Terms of reference
In response to industry demand and following defined processes and formats
1. Define the qualification(s)
   - Conduct DACUM job analysis
   - Develop competency standards
   - Define Qualification
   - Define
     - Competency Units
     - Structure
     - Level
     - Credit
     - Requirements for progress and achievement
     - Pathways and equivalences
   - Consult with the relevant Industrial Stakeholders to confirm the accuracy of the competency standards
   - Submit the competency standards to the regulatory authority for approval
2. Prepare assessment guidelines and packages

Membership of Qualification Standards Committee

Chair/Facilitator
Assist the group to understand and achieve their objectives without taking a particular position in the discussion
- Finalise the report and recommendation for registration of the qualification to NAVTTC

Members
- 2-3 Industry experts
- DACUM expert
- 1-2 Education/academic experts from the public and private training provider sector
- Trained and certified competency-based assessor
- 4-5 Recommended Group size

Qualification Level and Credit

Defining the level of the Qualification
The level of each qualification is calculated systematically using the following process:
- Each competency-standard in the qualification is evaluated by the committee against the NVQF level descriptors and the results are recorded in the table as follows:

Competency Standards	Level	Credit
Familiarisation with Terminologies & Tools	2	
Develop Design Concepts	3	
Analyse Cost Effective Solution	2	
Editing of Photos and Development of Graphics	2	
Prepare Pre-Press Job	2	
Perform Software/ Hardware Maintenance	1	
Communicate with Others	2	
Duties and rights at the workplace	2	

- The level of the qualification is then calculated by averaging the level of the competency standards. In this example 2+3+2+2+2+1+2+2= 16 / 8 competency standards = 2. Therefore the qualification is a Level 2 qualification.
  Averages of   0-1.99 = Level 1
                2-2.99 = Level 3 and so on

Defining the credit value of the qualification
The credit value of the qualification is defined by the Qualification Curriculum Committee by estimating the amount of learning the may be required. The equivalent of 10 hours of learning = 1 credit.

Competency Standards	Level	Estimate of hours	Credit
Familiarisation with Terminologies & Tools	2	100	10
Develop Design Concepts	3	200	20
Analyse Cost Effective Solution	2	100	10
Editing of documents	2	50	5
Prepare production	2	200	20
Perform Maintenance	1	200	20
Communicate with team	2	100	10
Duties and rights at the workplace	2	50	5
			100

Qualification Summary Documentation

1. Title of the Qualification   Version number–Date

2. NVQF Level

Level	

3. Total Credits

4. Purpose of the Qualification

5. Details of the qualification

Competency Standards	Level	Credit

6. Credit range

	Compulsory	Elective
Level x		
Level y		
Level z		
Minimum Totals		

7. Equivalencies, cross credits, pre-requisites

8.   Requirements for accumulation of credit

_____

9.   Requirements for the award of the Qualification

_____

10.   Transition arrangements for current courses, awards etc.

_____

11.   Version history

Process	Version	Date	Last Day for Assessment
Registration	1		
Revision	2		

12.   Standard Setting Body

Name	Contact Details

13.   Other standard setting bodies whose standards are included in the qualification

_____

14.   Certification body (s) / Qualification Awarding Body

Name	Contact Details

15.   ISCED Classification

ISCED Classification	
Code	Description

Conducting NVQF Assessment

Assessment

- All NVQF assessment must be competency-based.
- Assessment for the achievement of NVQF competency standards will be through national competency assessment instruments developed as part of the qualification formulation process by the Qualification Standards Committee.
- During training learners may participate in practice assessments. They will also participate in a range of activities that are assessments for national competency.
- Assessment for national competency will be conducted through processes supervised by accredited Assessment and Certification Bodies.
- Assessment for achievement of competency must be conducted by Registered Assessors who are independent of the training process.

Competency Standards and National Competency Instruments

- National Competency Assessment Instruments and processes must be validated by the Qualification Standards Committee before they are administered. The QSC will include a NVQF Registered Assessor commissioned by NAVTTC as the assessment designer and also representatives from the relevant industry. They will develop an Assessment Plan for each of the Units of Competency within the qualification
- NAVTTC must make all Competency Standards and national competency assessment instruments publically available
- Competency standards and national competency assessment instruments will be approved by NAVTTC (or delegated body) for a defined period and will be subject to a regular cycle of review and renewal
- NAVTTC will inform Assessment and Certification bodies of changes to Units of Competency and national competency assessment instruments.

Assessment and Certification Bodies

- An Assessment and Certification body is an organisation of a type mandated by legislation to conduct NVQF assessment. It must also be accredited by NAVTTC to conduct NVQF assessment for a defined scope of the NVQF by demonstrating that it has the capability to manage independent NVQF assessment. It may be government or private. It may deliver its services in one location or be organised to provide services through many locations. To be accredited the Assessment and Certification body must demonstrate that, whatever the organisational characteristics, it has the capability of providing independent, reliable assessment against defined NVQF competency standards.
- Individuals seeking assessment for national competency must apply to an Assessment and Certification body for assessment through an accredited institution.
- Scheduling of assessment by the Assessment and Certification Body must be as responsive to demand as is feasible
- Assessment and Certification bodies must only employ / contract certified assessors to conduct national assessments
- All assessments will be against the appropriate national competency assessment instruments
- Assessment and Certification bodies may have their accreditation removed for failure to maintain compliance with the

accreditation standard including failure to supervise the professional practice of the Registered Assessors operating under the accreditation of the Assessment Centre.

Registered Assessors

- NVQF assessment can only be conducted by assessors registered according to NAVTTC processes and criterion. To be registered assessors will need to complete a training programme and be assessed as competent to conduct competency based assessment.
- Individuals who meet the criteria may apply to the Assessment Body to be included on the Register of NVQF assessors
- An Assessor will be registered with the Assessment and Certification body for a stated scope of units of competency. The Assessor may apply to the Assessment Body to expand the scope. The application will need to be supported by evidence of certification in all the units of competency to be included in the scope.
- An Assessor will be registered for a period set by the NAVTTC, the awarding bodies and NAVTTC at which time the registration will need to be renewed by supplying any additional documentation required by NAVTTC.
- Registered Assessors must comply with the Registered Assessors Code of Practice
- Registered Assessors may be deregistered by the awarding body and NAVTTC and have other sanctions applied as a result of breaching the Professional Code of Practice.

Conduct of Assessment

- Assessment does not need to be linked to the requirements of an instructional course. An individual may request assessment for national competency at any time.
- Delivery of training programmes aims to improve the acquisition of skills and increase the certainty of successful achievement of national competency assessment.
- Learners may be advised to complete practice assessments and gain the endorsement of their trainer prior to seeking national competency assessment
- Internal practice assessments may be developed as part of TLMs by institutions
- Processes for the development of such internal practice assessments will be examined during accreditation of the institution.

Appeals

- An individual may appeal the results of an assessment for national competency on the basis of:
  - unprofessional or corrupt practice by the assessor;
  - use of incorrect, unapproved or out-dated assessment instruments
  - interference with or interruptions to the assessment process
- The individual must appeal to the Assessment and Certification body. The Assessment and Certification body must keep records of the appeal, the investigation, findings and the outcome of the appeal.
- The records must be made available to NAVTTC on request
- If the appeal is upheld the assessment may be repeated with no cost to the student

Re-Assessment

- An individual who has been judged as not-yet-competent in an assessment for national competency may seek to have another assessment opportunity scheduled without having to participate in any further training.
- The learner may be advised that they may benefit from further training or practice before applying for re-assessment but re-assessment should not restricted by a requirement for re-training
- An individual seeking re-assessment would need to pay the assessment fee again.

Recording of Assessment Results

- Records of the results of all assessments for competency must be kept by the institution and Assessment and Certification awarding body.
- A record of the assessments must be transmitted to NAVTTC using the designated official communication.
- All achievement of NVQF competency standards will be recorded on the NVQF Record of Achievement by NAVTTC.
- These records will be used for certification and for post-assessment moderation/monitoring.

Assessment Moderation and Monitoring

- Assessments for national competency assessment instruments will be subject to post-assessment moderation monitoring by NAVTTC
- Discrepancies in assessment decisions and in the overall patterns of achievement will be monitored and investigated by NAVTTC
- Findings resulting from monitoring will be communicated to IAGs, assessment development working parties, training organisations and assessment centres as needed for quality improvement

Qualification Curriculum Committee

Role
To develop specified curricula, based on NVQF criteria, with support from a National Curriculum Development Expert and with inputs/feedback from Industrial Advisory Groups

Draft terms of reference:
- Examine the qualification, competency-standards and level to identify requirements
- Devise the curriculum that will support the achievement of the competency standards and the qualification
- Define the credit value of the curriculum according to NVQF criteria and processes

Work Group

Facilitator/ Curriculum Expert
Assist the group to understand and achieve their objectives without taking a particular position in the discussion

Membership of Qualification Curriculum Development Committee
- 2 industry representatives
- 3-5 members mainly from public and private training providers, including experts from the relevant field

Glossary

Term	NVQF Meaning
Accreditation	A certificate of accreditation awarded by NAVTTC when an institution is judged against a set criteria to be capable of delivering a training and/or assessment leading to the award of a NVQF qualification.
Affiliation	The process conducted by an authorized body (BTEs, TTBs and PVTC Lahore) that gives permission for an institution to deliver specified programmes under the authorized bodies specified criteria.
Assessment	The process of gathering and interpreting information to make a judgement about a learner's achievement against the competency standards.
Assessment Plan	A plan of the various assessment instruments that will be used to assess whether individuals are competent including details relating to the relevant competency, types of evidence, scheduling, place and means by which the assessment process will be implemented.
Assessment instrument or assessment event	A method for the gathering of evidence for assessment, such as a knowledge test or a checklist of practical performance.
Assessment Moderation (Moderation of Assessment)	The process of establishing comparability of judgments of standards of candidate's performance across different assessors, assessment centres and venues, in order to ensure that assessment is valid, reliable and fair.
Assessment and Certification Bodies	Organisations that are mandated and accredited to provide assessment services that lead to certification as per qualification registered with the NVQF. These include Trade Testing Board (TTB) , Board of Technical Education (BTE) and the PVTC Lahore
Assessors	Person authorised to conduct competency-based assessment as per competency standards using various instruments to determine if the competencies as specified in the competency units have been acquired and recommend for qualification completion. Assessors are initially trained, registered and / or licensed.
BTE	Boards of Technical Education in the provinces as an authorized bodies to conduct assessment and evaluation and issue certificates and diplomas.
Certificate	An outcome of achievement in the form of a certificate, diploma, degree awarded to the individual by the assessment body
Certification	A status awarded to the institution when it has been ascertained by the authorized certification/accreditation body that specified standards and criteria have been met.
Competency-standard	A statement specifying the required performance to a defined standard. It is determined by industry and specifies the performance required to be able to work effectively. It is expressed as outcome.
Competency Unit	A sub-component of the competency standard containing the group of related competent performances to perform a particular function or task in a particular job or occupation. It provides a basis for planning training and assessment activities.
Competency-based assessment	The process of gathering and interpreting information in order to make a judgement about a learner's achievement against the required competencies in a qualification or part qualification
Competency-based Training	Competency-based training (CBT) is an approach to vocational education and training that places emphasis on what a person can do in the workplace as a result of completing a program of training.
Credit	A measure of the volume or amount of learning needed to achieve the competency. In the NVQF ne credit is equivalent to 10 hours of learning.
Curriculum	A systematic plan, based on the competency standards and competency units that sequence learning and assessment activities to enable trainees to gain the competencies required to achieve the qualification.

Term	NVQF Meaning
DACUM	A method of analysing jobs and occupations that results in the production of a chart listing the duties, tasks, and related information about the job. The chart provides a basis for developing a competency-standards, qualifications, curriculum and instructional materials.
Descriptors	A statement that describes the main learning outcome under "Knowledge & understanding", "skills", and "responsibility" relevant to the qualification at that particular level.
Equivalence	Refers to equivalence between and within the qualifications which allows learners to accelerate the acquisition of qualifications within the same qualifications framework or can be used in facilitating international cross recognition.
Examination	Refers to a particular type of assessment instrument conducted under time limited and controlled conditions usually focussed on theoretical knowledge
Foreign Qualifications	Qualifications from other countries which are of good quality, legitimate as per NQF of source country, relevant to the local and foreign labour market, helps upskills the population of Pakistan and are consistent with NVQF. NAVTTC has the responsibility to manage and review the foreign qualifications offered in Pakistan.
Formal Learning	Learning or achievement that took place through prescribed formal structured pathways (levels of NVQF) that leads to achievement of partial or full accredited / registered qualification
Generic skills	Competencies common to industry sectors and often form the core of several related qualifications. It includes, communication skills, teamwork skills, interpersonal skills, lifelong learning skills, ability to apply skills etc.
Horizontal Progression	Refers to horizontal progression of individual to acquire further education in the same level qualifications
Informal Learning	Learning or achievements acquired by the individuals through work experience in the employment/ self-employment/ labour market and is not organized and structured as in the formal sector.
Knowledge and understanding	Component of the competency standard and a NVQF level descriptor that describe what an individual knows and understands (the body of facts, principles, theories, practices) related to the particular qualification at that level.
Learning Outcome	A unique statement that describes knowledge, skills and/or competencies an individual has acquired and/or is able to demonstrate after completion of a learning process, either through formal or non-formal/ informal means.
Learning Unit	A sub-component of a Module describing a specific grouping of learning outcomes relating to one or more related competencies
Level	Level describes the pathway for horizontal and vertical progression under a set of descriptors that indicate the complexity of the skills and knowledge that the learner will have achieved.
Lifelong Learning	Learning that takes place throughout life to acquire knowledge and skills mostly is in the employment-related contexts.
Moderation Plan	Documentation of a qualification specific set of processes that ensures consistent assessment judgements across the nation
Module	A sub-component of the curriculum that defines a sequence of related learning experiences related to one or more Competency Units
Monitoring & Evaluation	On-going close observation and assessment to verify that various NVQF components are being implemented according to the set standards and criteria.
Non-formal Learning	Learning or achievement acquired through a structured program of learning but didn't lead to an officially accredited qualification
Pathway	Indicate path to the students to move through qualification levels with full or partial recognition for the qualifications and/ or learning outcomes they already have.
Performance Criteria	Component of competency standard and a NVQF level descriptor which specify the critical evidence for the purpose of assessment to ascertain that the individual has acquired and is able to do, to meet the requirement of particular competency unit.

Term	NVQF Meaning
Qualification	• A package of competency standards that have been identified as meaningful in employment/ occupational settings. The qualification exist independently of any learning pathway to achieve it. • A formal outcome of the NVQF assessment and validation process in the form of a certificate, diploma, degree issued by an assessment body after determining that an individual has achieved the industry-defined competencies as specified in the competency standards.
Quality assurance	The processes of ensuring that specified standards or requirements for teaching, learning, education administration, assessment and the recording of achievements have been met.
Qualification Coversheet	A summary of qualification that describe the title, level, total credit hours, competency standards with level and credit hours and other necessary information in a standardized format as a quick reference for all stakeholders.
Qualification Registration	Refers to registration of qualification on NVQF to make it credible and acceptable within the employment market with the backing of both the relevant industry and Government of Pakistan.
RCC (Recognition of Current Competency)	The process in which the competency/ies currently possessed by an individual can be assessed against the relevant unit of competency and may be given recognition through the issuance of appropriate certificate.
Registration	The process conducted by an authorized body (TEVTAs) that recognises an institution meets the minimum standards to deliver training programmes
RPL (Recognition of Prior Learning)	The process in which the individual's previous learning outside the formal system which contributes to the achievement of current competency/ies can be assessed against the relevant unit of competency and given recognition through the issuance of appropriate certificate.
Skills	The ability of an individual to do the task and activity as per defined standard of that level. The skills are described in terms of kinds and complexity. It includes generic as well as technical skills.
TLM	Teaching and Learning Materials. A package of materials that support the teaching programme and the learning activities that are aimed at helping the learner achieve the competencies.
Vertical Progression	Refers to vertical path individual can enter to acquire higher level qualifications prescribed in the NVQF