

National Qualifications Framework (Revised Edition)

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Preface

The Advisory Committee on Fostering National Qualifications Framework, at the meeting on 7 March 2016, chaired by General Dapong Ratanasuwan, Minister of Education, agreed to adjust the 9 levels of the National Qualifications Framework (NOF) to 8 levels, in order to be consistent with the production trend of manpower in key industries of the country, as well as with the ASEAN Qualifications Reference Framework (AQRF). The linkage with the education system in the context of Thailand still exists and is fulfilled with the learning outcomes of the AQRF. This will avail flexibility in referencing the levels of qualifications of Thai learners and workforce in the future. The Office of the Education Council, in cooperation with relevant agencies, revised a new edition of the National Qualifications Framework, not only adjusting the 9 levels of the NQF, but also clarifying the glossaries and strategies. The new edition was presented to the National Qualifications Framework Committee, chaired by Air Chief Marshal Prajin Chantong, Deputy Prime Minister, at the meeting on 9 January 2017. The meeting endorsed the revised edition of the NOF with the recommendations. The framework was completed with the recommendations and finalized by all concerned authorities including 2 experts: Prof. Paitoon Sinlarat and Dr. Siripan Choomnoom. Then it was

presented to the Cabinet on 18 April 2017 and got approval with indication that the Ministry of Education and related agencies should formulate a plan to foster the NQF into concrete implementation including making stakeholders understand the NQF for accurate implementation.

The Office of the Education Council, therefore, has published this National Qualifications Framework, Revised Edition, for awareness and understanding in NQF of all stakeholders to join force in fostering the NQF into concrete implementation which will lead to quality development of manpower to have potentiality for Thailand 4.0

(Dr. Kamol Rodklai)

Secretary-General of the Education Council

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National Qualifications Framework (Revised Edition)

1. Introduction

The government has realized the importance of human development at every range of life through lifelong learning in order to gain knowledge and skills required by various occupations for future employment. Vocational and Community Education are promoted to produce skilled labour, especially, demanded labour in local areas, and strengthen quality of education which links to occupation standards. The Prime Minister (General Prayut Chan-o-cha) mentioned in the television programme on Happiness of People in the Country that "At present, for manpower production, we expect quality rather than quantity, especially, technical and vocational manpower; they should be qualified or skilled labour for employability. If we do not improve our education quality to produce manpower as demanded by the labour market, those graduates will not be employed."

The government has set a goal to lead the country to "Thailand 4.0" focusing on changing the economic structures to "Innovation-based Economy" which would change the economic model from a big volume of products produced by cheap labour to knowledgeable, innovative, digital and technological production. This concept has been discussed at both national and international levels. At international arena, Members of the United Nations have focused on Sustainable

Development Goals (SDGs) to ensure that everyone would receive quality and equity in education, access to lifelong learning, Technical and Vocational Education and Training (TVET), quality and affordable costs of higher education by 2030. For Thailand, those policy issues are developed as national agenda in the 20-year National Strategies. The Human Capacity Development and Promotion, aiming at lifetime human development, strengthening quality and equity in education and learning, is relevant to the Twelfth National Economic and Social Development Plan (2017 - 2021). People-centered and Participation Model is the main focus of this plan to increase competitiveness of the country. This has also resulted in manpower requirement of the 21st century skills of Thai citizens, including:

- 1) having knowledge, skills and capability to cope with the world in the 21st century;
- 2) having Thai identity and being compatible with international society; and
 - 3) being digital Thais for digital economy and society.

Furthermore, since 2015, Thailand has officially involved in ASEAN Community, resulting in creating economic, social, political, and cultural linkages, especially, mobility of labour among Member States. Therefore, Thailand needs to strengthen manpower development to meet the standards in ASEAN and international communities. The Office of the Education Council (OEC) as a policy organization, responsible for the national education quality, has realized the importance of manpower development issue. The strategy 2 of the 20-year Education

Development Plan (2017 - 2036), focusing on manpower production and development, research and innovation for national competitiveness, aims at developing manpower in response to National Qualifications Framework (NQF) approved by the Cabinet in 2014. OEC has planned and implemented the National Qualifications Framework (NQF) through the Advisory Committee and working groups.

Since a number of organizations have been involved in the implementation of National Qualifications Framework (NQF); therefore, at the first meeting on March 7, 2015 of the Advisory Committee on National Qualifications Framework (NQF) Implementation, chaired by General Dapong Ratanasuwan, the Minister of Education, agreed to establish the National Qualifications Framework (NQF) Committee, chaired by Deputy Prime Minister, and the Cabinet approved on August 2, 2016. The National Qualifications Framework (NOF) Committee is responsible for coordinating and collaborating with related agencies in implementing the National Qualifications Framework (NOF).

At the meeting on March 7, 2015, the NQF Advisory Committee also agreed to adjust the National Qualifications Framework (NOF) from 9 levels to 8 levels to accord with ASEAN Qualifications Reference Framework (AQRF) learning outcomes. This helps prevent the problems in referencing the qualifications of students and manpower in the future. OEC as the secretariat has worked closely with related agencies including Office of Vocational Education Commissions (OVEC), Office of Higher Education Commission (OHEC), Office of Basic Education Commission (OBEC),

Non - formal and Informal Education Promotion Office, Department of Skill Development, Thailand Professional Qualifications Institute (Public Organization), Ministry of Tourism and Sports, Thailand Chamber of Commerce, and Thailand Development and Research Institute (TDRI). Those organization representatives agreed to revise the 9 levels of NQF to 8 levels with detailed component of each qualification level. Roles and responsibilities of the organizations relevant to NQF and AQRF are also revised which would systematically facilitate the implementation of NQF. The revised National Qualifications Framework (NQF) was submitted to the National Qualifications Framework Committee for consideration before seeking approval from the Cabinet.

The National Oualifications Framework Committee, at the meeting on January 9, 2017, approved the revised National Qualifications Framework before submitting to the Cabinet.

2. Synopsis

2.1 Principles of National Qualifications Framework

National Oualifications Framework has been developed under the following principles:

1) Establish linkages between learning outcomes of the graduates from educational institutions and working competencies as required by production and service sectors. National Qualifications Framework identified core competencies and occupational competencies which are accepted by related agencies and organizations and will be used in curriculum development; teaching and learning design; training of administrators, teachers and trainers in enterprises (industrial,

agricultural, business and service sectors) as well as educational personnel. National Qualifications Framework would also facilitate the provision of materials, tools, equipment, etc., in order to prepare educational institutions and enterprises for delivery programmes as required by production and service sectors.

- 2) Develop the evaluation systems on knowledge, skills and experiences, with opportunities, flexibility, and diverse methods, which facilitate easy access to anyone, anytime. This would help to upgrade knowledge and skills as well as educational qualifications of those in the labour market.
- 3) Increase capacity and competitiveness of educational institutions as required by production and service sectors. All stakeholders include educational institutions responsible for manpower production, producers of commodities and services as users of the graduates, and labour force as the output of the education delivery.
- 4) Build capacity of administrators, teachers, education personnel and trainers in enterprises in order to get knowledge, understanding and skills in carrying out various models of teaching and learning process, especially, occupational competencies and skills in thinking, analyzing, and problem solving.
- 5) Strengthening enterprises in each occupational group and professional organization in accreditation of core competencies and occupational competencies which will be a mechanism in providing incentives for improving education system according to National Qualifications Framework as well as

a provision of wages or salaries according to capacity, skills and competency at each level of qualification in National Qualifications Framework.

Therefore, National Qualifications Framework provides guidelines for linking all levels and types of qualifications of the country and competency levels of an individual whose learning outcomes were from education, training, and experiences. In other words, National Qualifications Framework provides linkages between educational qualifications responsible by educational institutions, and occupational standards or qualifications which need National Qualifications Framework for referencing in order to unify national manpower development system as shown in Figure 1



Figure 1 Linkages between Educational Qualifications and Occupational Standards in National Qualifications Framework (NQF)

2.2 Definition of Key Terms

- 1) National Qualifications Framework is a framework which provides linkages between learning outcomes of each level of educational qualifications, as stipulated by levels and types of education, and each level of competencies in occupational standards.
- 1.1) Educational Oualifications are evaluated by a formal certificate, diploma or degree for each level and type of education such as basic education, vocational education and higher education.
- 1.2) Occupational Standards are guidelines for identifying levels of performances or competencies in different complexity comprise occupational standards and professional qualifications, skill standards, and international occupation standards.
- 2) Learning Outcomes are indicative criteria of learning characteristics and results which derive from process of learning standards of curriculum at each level or type of education and experiences from practical training or working. Learning outcomes are divided into three dimensions as follows:
- 2.1) Knowledge concerns with facts, principles, theories, and guidelines related to learning or working, focused on theoretical and factual.
- 2.2) Skills are abilities in work performance assigned to an individual to manage, solve problems with cognitive skills related to logical, intuitive and creative thinking or practical skills in using tools and equipment fluently.
- 2.3) Application of knowledge, skills and responsibility Abilities of individuals resulted from learning process,

knowledge, social skills, work experiences, education and training which would facilitate professional development. Ability in communication, leadership, responsibility, and autonomy, such as decision making and responsibility to others and themselves, are also included

- 3) Competency is ability in working resulted from application of knowledge, skills, and attributes, which includes 2 parts as follows:
- 3.1) Core competency is basic knowledge, skills and attributes required for working such as communication, numerical analysis, ICT, thinking, problem solving, and teamwork.
- 3.2) Occupational competency is specialized knowledge, skills, and attributes to perform each job in each field of occupation.

2.3 Objectives of National Qualifications Framework

- 1) To serve as a mechanism for education reform by linking quality demand on manpower required by production and service sectors with educational qualification system in order to keep pace with the changing world of work and educational standards, which would increase education quality to be compatible with international standards.
- 2) To strengthen lifelong learning and widen education participation to build manpower capacity for socioeconomic development of the country.
- 3) To develop linkages with NQF of other countries and serve as a mechanism for manpower competitiveness and mobilization.

4) To increase value of those having functional competencies who need to have their educational qualifications through validation of experiences or recognition of prior learning (RPL) including the linkages of learning pathway and various career development and progress of an individual.

2.4 Structures of National Qualifications Framework

There are eight levels of qualification description in the National Qualifications Framework for referencing on learning outcomes which comprise 3 parts: knowledge, skills, application and responsibilities.

1) Levels

Levels of abilities or functional competencies have been identified in the NQF according to the scope of knowledge, skills and abilities in application and responsibilities, which link to learning outcomes and different scopes from easy to difficult levels of 1-8. Those level descriptions are common and can be applied for manpower in every field of occupations.

2) Learning Outcomes

There are three parts of learning outcomes: 1) knowledge which covers academic competencies i.e. concepts, theories, and facts, 2) skills which include critical thinking, introspection, initiation, practices, and 3) ability in application of knowledge, skills, and responsibility.

Those three parts of learning outcomes are different at each level, both in complexity and depth of academic understanding. Each qualification in level description is in the Table.

Table 1 Learning Outcomes at each level of National Qualifications Framework (NQF)

	80	The most advanced and highest specialized level	Initiate research creating knowledge or practices Use English in academic presentation Research published and accepted internationally
	7	The in depth forefront of the field	Skills in thinking, analyzing, initiating research, expanding knowledge, practices, academic English usage
h level	9	Theory and detailed specific occupation field	Skills in thinking, analyzing, reviewing, and problem comparison
Domains at each	5	Theoretical and in depth technical, covering an occupation field	Skills in thinking, and problem solving Skills in planning, managing and operation evaluation
Learning Outcomes of Domains at each level	4	Theoretical and technical, covering an occupation field. English + ICT related to work	Skills in adapting suitable operation process and related to safety issues
Learnin	3	Principles of specialized fields and basic analysis	Skills in selection and application of basic tools and materials Communicative ICT and skills related to safety issues
	2	Communicate and ICT in general and factual of the field	Skills in according to required steps and steps and steps and steps (If e skills, communication skills with initiatives)
Domains Learning Outcomes of Domains at each level	1	Knowledge • Basic, general about occupation • Communicate in the world of work	Basic skills in occupation Skills in communication, life skills, and skills in routine operation without complexity
Domains		Knowledge	Skills

Domains			Learnin	g Outcomes of	Learning Outcomes of Domains at each level	h level		
	1	2	ಣ	4	5	9	7	∞
Application and Responsibility	Ability in routine operation according to required steps Ability in operation under close supervision	Ability in operation according to principles and standards Ability in operation, tooking after and making basic decision and problem solving.	Ability to operate as planned and adjust oneself without complex changes Ability in invidependently providing basic advice needed for decision making and planning for problem solving in some issues Application of knowledge skills in the field, ICT, communication in problem solving, and work in the new context including responsible to oneself and others	Ablity to operate as planned and adjust to changes Ablity in problem solving by oneself and coordinate for problem solving with unfamiliar issues	Ability in operation under changing situation at all time evaluation of operation by oneself for complex problem solving and abstract issues	Complex problem solving and changing Initiate, improve, strategic planning in complex and abstract problem solving and managing in the field.	Solve complex and unpredictable problems, develop and try out new methods, search for innovative solutions Provide judgment and be responsible as expert with knowledge in operation and management theoretical and practical and practical and practical knowledge and management.	Have expertise in complex problem solving, develop and test new theories or search new solutions with complex and abstract issues of the provide knowledge in the field for management research and responsible for enhancing knowledge and practices, creating new ideas and practices, creating new ideas and process in the field.

3) Connecting, Filling up, and Benchmarking Mechanism

Flexible, diversified, and accessible mechanism or system for connecting, validating, and benchmarking qualifications is needed to facilitate both those with educational qualifications and those who have skills and experiences as well as occupational standards and would like to have educational qualifications.

In the future, if competency-based curriculum and delivery have been developed and improved according to National Qualifications Framework, those who have educational qualifications corresponding to National Qualifications Framework will have competencies as required by the labour market while those who have skills according to occupational standards and want to have educational qualifications, can be validated for assessment and filling-up systematically and easily for educational qualifications.

Educa	tional Qualific	ations	NQF	Occupational S	tandards
Basic Education	Vocational Education	Higher Education	Levels	Professional / Occupational Standards	Skill Standards
		Doctoral Degree	Level 8	PQF Level 8	
		Master Degree	Level 7	PQF Level 7	
	Bachelor Degree (B. Tech.)	Bachelor Degree	Level 6	PQF Level 6	
	Diploma in Vocational/	Diploma	Level 5	PQF Level 5	SS Level 5
	Technical Education	ырюта	Level 4	PQF Level 4	SS Level 4
Upper Secondary + Occupational	Vocational Education Certificate		Level 3	PQF Level 3	SS Level 3
Upper secondary			Level 2	PQF Level 2	SS Level 2
Lower secondary			Level 1	PQF Level 1	SS Level 1

Mechanism in linking, filling-up, validating, and recognizing between educational qualifications and occupational standards

- Testing, assessing, and evaluation
- Learning through formal, informal and non-formal education
- Validating working experiences, training, and operating in the workplace
- Accumulating learning credits (Credit Bank System)

Continuing and Lifelong Education

Figure 2 Connecting and Validating Qualifications in National Qualifications Framework

3. Roles and Responsibilities of Related Agencies

Successful and effective implementation of National Qualifications Framework would be an important tool for education reform and human resource development of the country. Roles and responsibilities of related agencies need to be clearly identified, especially two partners: education agencies and occupational standards agencies. They need to develop linkages, work cooperatively and systematically in order to ensure that the learning outcomes at every level of education link or respond to level of required competencies of labour force. Furthermore, the quality assurance system helps create confidence at both national and international levels.

3.1 Central Authority

In order to effectively implement National Qualifications Framework (NQF), there is a need to have a central authority in organizing and managing linkages between educational qualifications and occupational standards or qualifications systematically and continuously. National organizations as well as international networks are essential to ensure national qualifications unification through the following roles and responsibilities:

- 1) Formulate policy and implementation plan to enhance linkages between educational qualifications and occupational standards.
- 2) Provide criteria and standards for accreditation of curriculum that corresponding to NQF.

- 3) Develop quality assurance system of curriculum and learning delivery of NQF.
- 4) Organize comparable system in order to provide education pathway to both learners and labour force through linkages between educational qualifications and occupational standards.
 - 5) Provide qualifications data base relevant to NQF.
 - 6) Develop comparable system between NQF and AQRF.
- 7) Provide public awareness in order to make all social partners have knowledge and understanding in NQF as well as develop networks for cooperation with all related agencies.

3.2 Roles of Education Agencies

- 1) Develop new curriculum and improve old ones corresponding to occupational standards.
 - 2) Register curriculum according to NQF.
 - 3) Facilitate teacher training.
- 4) Monitor and evaluate implementation of curriculum and delivery system.

For Thailand, related agencies in implementation of NQF include Office of Basic Education Commission, Office of Vocational Education Commission, Office of Higher Education Commission, Office of Non-formal and Informal Education Promotion, Office of Private Education Promotion, Bangkok Metropolitan Education Office, and etc.

3.3 Education and Training Institutes

- 1) Delivery of education programme according to occupational standards.
- 2) Cooperation with enterprises in teaching and learning process such as Dual Education, Cooperative Education, on-the-job Training, and providing experienced staff from enterprises to teach in education institutes, and etc.
- 3) Assess and evaluate actual situations of learners' competencies according to NQF.

3.4 Occupational Standards Agencies

- 1) Create, improve, and develop occupational standards as required by Thailand and international community.
- 2) Facilitate education institutions in using occupational standards for competency- based curriculum development as needed by the labour market.
- 3) Develop testing system to improve skills, knowledge, as well as upgrade levels of occupational standards.

For Thailand, there are a number of agencies responsible for occupational standards as shown below.

Agencies	Types/Names of Occupational Standards
Ministry of Labour, Department of Skill Development	National Skill Standards
Prime Minister Office Thailand Professional Qualification Institute (Public Organization)	Professional Qualification Standards
Ministry of Tourism and Sports	ASEAN Tourism Competency Standards Framework
Professional Organizations Occupational Groups and Industries	Specialized Standards for each field of occupation or industry.

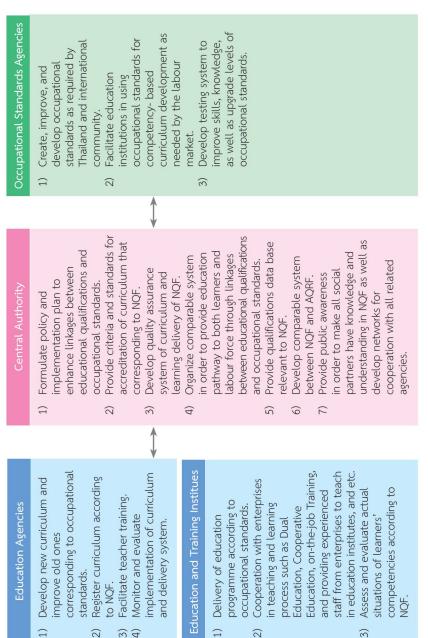


Figure 3 Roles and Responsibilities of Related Agencies

4. Strategies

4.1 Strategies of National Qualifications Framework (NQF).

- 1) Provide knowledge and understanding in NQF and AQRF to all stakeholders.
- 2) Provide public awareness on NQF, especially, students, parents, and labour force in order to realize the value of competency levels related to educational qualifications.
- 3) Make all stakeholders accept NQF, and provide guidelines for NQF implementations at every level of educational qualifications and occupational standards in order to link and integrate education and training of learners and labour force.
- 4) Develop participation of occupational group networks for sense of ownership, creating accreditation of working competencies.
- 5) Organize mutual agreement between occupational sectors and education sectors for required manpower production.
- 6) Top up and enhance cooperation models of occupational standards agencies and education institutions in development of competencies, curriculum and learning delivery.

4.2 Develop system and mechanism in management of NOF

- 1) Develop holistically mobilized mechanism for NQF
- 2) Provide implementation mechanism of NQF through various sub-committees of the National Qualifications Framework Committee.
- 3) Organize central authority to be responsible for formulation of policies, strategies, criteria and standards,

comparable system, quality assurance of education and training, accreditation by third party body and facilitate linkages and comparability to international qualifications.

- 4) Develop individual database on competencies of working-age populations, education graduates, credit bank systems, and curriculum information system that link to occupational standards and educational qualifications in NQF.
- 5) Organize and improve laws, regulations and criteria related to NQF, for example, laws and regulations for validation of experiences or regulations on prior learning to upgrade knowledge, skills and qualifications. Laws and regulations of the NQF central authority would facilitate independent decision making as well as incentive measures for NQF implementation.
- 6) Use NQF as core criteria for development of educational qualifications and occupational standards.
- 7) Monitoring and evaluation of the NQF implementation in order to review and improve.

4.3 Development of occupational standards corresponding to NQF

- 1) Develop, monitor, evaluate, review and improve occupational standards as required at national, regional, and international levels.
- 2) Provide profiles of occupational standards in the fields that serve the needs of labour market and national development strategies.
- 3) Cooperate with occupational standards agencies as well as education and training institutions in order to comply with criteria and standards of NOF.

- 4) Provide system of inspecting, monitoring and evaluating occupational standards in order to improve, develop and make them suitable, update and effective.
- 4.4 Development of educational standards, teaching and learning / training process as required by NQF.
- 1) Develop criteria, registration system, and quality assurance system according to NQF for both educational qualifications and occupational standards.
- 2) Provide educational standards related to NOF such as curriculum standards, institutional training standards, learning delivery standards, equipment and tool standards, teacher and trainer standards.
- 3) Develop and improve education and training curriculum into competency-based, provide working environment in learning and make it linked to learning outcomes of NQF.
- 4) Strengthening learning and training that focus on skill competency and attribute development according to NQF, dual education, or other types of cooperative education which are carried out in partnership with enterprises and all stakeholders

4.5 NOF Enhancement to ASEAN and International Standards.

- 1) Facilitate comparable systems of Thai educational qualifications and occupational standards with AQRF in each sector and field.
- 2) Monitor and evaluate comparability of NQF and AQRF according to ASEAN indicators.
- 3) Facilitate comparability of Thai qualifications and international qualifications.

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