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Mapping Qualifications Frameworks across APEC Economies

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**Asia-Pacific
Economic Cooperation**

Mapping Qualifications Frameworks across APEC Economies

APEC Human Resources Development Working Group

June 2009

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Prepared by:



MONASH UNIVERSITY - ACER

CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING

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Acronyms

ACER Australian Council for Educational Research

APEC Asia-Pacific Economic Cooperation

BFUG Bologna Follow-Up Group (for the Bologna Process fostering the European Higher Education Area)

CEDEFOP Centre Européen pour le Développement de la Formation Professionnelle (European Centre for the Development of Vocational Training)

CEET Monash University-ACER Centre for the Economics of Education and Training

CEPES European Centre for Higher Education (of UNESCO)

CHEA Council for Higher Education Accreditation (of UNESCO)

CHED Commission on Higher Education, the Philippines

CPELL Centre for Postcompulsory Education and Lifelong Learning University of Melbourne

ECTS European Credit Transfer Scheme

ECVET European Credit System for VET

EDNET Education Network, subgroup of HRDWG

ETF European Training Foundation

EQF European Qualifications Framework for Lifelong Learning

EU European Union

HRDWG Human Resources Development Working Group of APEC

KRIVET Korea Research Institute for Vocational Training

NQF National qualifications framework

OECD Organization for Economic Cooperation and Development

TESDA Technical Education and Skills Development Authority, the Philippines

TVET Technical and vocational education and training

UNESCO United Nations Educational, Scientific and Cultural Organization

VET Vocational education and training

VRQA Victorian Registration and Qualifications Authority

Executive summary

The project

This report on qualification frameworks was undertaken for the Asia-Pacific Economic Cooperation (APEC) Human Resources Development Working Group (HRDWG) Education Network Subgroup (EDNET).

The project aimed to facilitate increased transparency and reliability of information about qualification frameworks across the APEC region, share knowledge and skills and identify future areas of collaboration.

A qualifications framework is an instrument for classifying qualifications according to a set of criteria for levels of learning outcomes. Considerable benefits are expected of national qualification frameworks (NQFs). If backed by a good system of quality assurance, they can support the development of workers' skills, facilitate educational and labour market mobility, and help improve the access of individuals to higher and different levels of education and training over their lives. Education and training providers and authorities are able to design more consistent and linked qualifications when descriptors of qualifications are developed within NQFs. Employers benefit in their recruitment and training of staff when they can understand and have confidence in qualifications. The international recognition of an economy's qualifications can be enhanced by the transparency of qualifications to which an NQF can contribute.

This report is based on desktop analysis of qualification frameworks, contacts made by members of the project team and on a survey of APEC member economies carried out in the project.

Features of national qualifications frameworks in APEC

The NQFs in operation in the member economies of APEC are diverse in their structure, coverage, operational purposes and governance. They aim to provide greater transparency for qualifications, support for skills standards systems, a means of managing quality assurance, and facilitate the international recognition of qualifications. Some economies use the NQFs as a basis for credit systems for transfer across education and training levels and institutions.

Seven APEC economies—Australia, Hong Kong SAR China, Malaysia, New Zealand, Singapore, Thailand and the Philippines have NQFs. The Republic of Korea is in the process of implementing one and five others have them under development or consideration. Of the seven with frameworks:

- Five have NQFs covering senior secondary, vocational education and higher education qualifications, but there are differences in the framework across the sectors. In Singapore the framework applies only to vocational education and in Thailand to higher education.
- Five of the economies have explicit levels of qualifications and two have them implicitly.
- Most NQFs contain descriptors of qualifications and units, and the descriptors are based on a taxonomy of learning outcomes at least for the VET sector.
- Competency standards are the basis for qualifications and units in the VET sector.

- Most of the NQFs include measures of the volume of learning, and a formula for estimating the amount of learning required to achieve a qualification.
- Credit frameworks have been developed in New Zealand and Singapore and they are under development in some other economies.
- All the NQFs have an associated public register of qualifications.
- Recognition tools are being introduced in Australia and are under discussion in New Zealand.
- The NQFs in each economy are managed by a national agency.
- Compliance with the NQF is supported by systems of quality assurance though its operation tends to be shared by a number of agencies.
- The frameworks have been supported by legislation or by government regulation.
- To date the NQFs are not linked to regional or international frameworks.

It is the education and labour departments of government that have been responsible for qualifications. In several economies NQFs have emerged from the Technical and Vocational Education and Training (TVET or VET) sector associated with the developments of industry skills standards and competency standards-based qualifications. The introduction of competency-based training has been associated with a relative shift in control of the content of training from providers to industry.

The autonomy of universities, who generally wish to retain the major influence on the content of their courses, has in some cases been a barrier to the development of an NQF, especially where the frameworks are accompanied by quality assurance and accreditation systems that are external to the education providers. However, as was the case with the Bologna processes in Europe, the diversity of higher education systems also creates pressure to establish qualifications frameworks.

The agencies that conduct the oversight of quality assurance include qualifications authorities, government departments, and more independent bodies—commissions, councils, boards and institutes. Quality assurance also takes several forms and improved registers of courses and providers can be considered part of this.

Factors affecting implementation

The most frequently cited constraints on the development of NQFs were those of acceptance and understanding of the NQF across the various agencies and sector authorities involved in education, training and employment. Universities in particular have tended to guard their autonomy and only accept frameworks that largely reflect their existing practices.

Those economies where the regulatory and quality assurance activities are distributed among a range of bodies raise concerns about whether the framework is being implemented as the NQF agency would consider appropriate. Conversely the more centralised NQFs have the challenge of maintaining a dynamic capacity across their qualifications system. Several NQFs have attempted to address these problems through sector-based qualifications or by having an umbrella type of framework that allows the education sectors to develop fairly separate frameworks.

Because so many of the NQFs are in their early stages of development the most common challenges are those of continued improvement, dissemination and stakeholder engagement. In some cases there is the challenge of convincing or negotiating with a non-participating sector to embrace the NQF. All NQFs face the challenge of the changing international contexts, including increased student and worker mobility. So while some economies are anticipating changes this is either the expectation that another sector will come into the NQF or a processes of on going reform rather than any major change in the fundamental characteristics of the NQFs.

Amongst those economies that have developed NQFs there is a high level of political support for NQFs. The main achievement of NQFs is their acceptance by the wide range of sectors, agencies and stakeholders.

The response to the survey by the United States is notable in relation to questions of implementation and the need for an NQF. The US has a federal system where the national government has a relatively small role in education and training and an NQF is unlikely to be introduced. Despite this, there is considerable commonality in qualifications across the country and extensive registration of providers and accreditation of qualifications. Some of this is via regulated occupations and professional associations. Some is via the state accreditation of education institutions. There are requirements for tertiary colleges to provide considerable information on their websites. The US is taking an active part in the development of recognition tools. Hence some, at least, of the objectives held for NQFs are potentially achievable by other means.

A regional framework?

All economies see benefits in linking their NQFs internationally. The advantages that such links can bring are the greater potential for international recognition of national qualifications, the facilitation of the mobility of labour and students, the liberalisation of trade in education and training, and the greater transparency of national qualifications systems. Most economies who responded to the survey indicated support for the development of a regional framework.

The report reviewed whether an Asia-Pacific Qualifications Framework (APQF) might be developed and if so how. Consideration was given to the need for and benefit of such a framework, the cost implications of such a framework and whether there were alternatives to developing a new framework. The conclusion was that there was a strong case for having a framework available *as a voluntary reference point* for Asia-Pacific economies but that the costs of such a development would need to be investigated and kept to a fairly modest level. These issues taken together led to the recommendation that the core elements of the European Qualifications Framework, which is already being extensively used beyond Europe, be the basis for development of a framework for the Asia-Pacific region.

Recommendations

The report includes the following recommendations:

Recommendation 1. Economies that have developed NQFs should be asked to identify key lessons from their experiences.

- Seven APEC economies have frameworks and another six are in process of developing or implementing them. These economies could be asked by EDNET to use this report as a means of identifying the key lessons for the further development and usefulness of their NQFs and the relation of their NQF to that in other economies.

Recommendation 2. EDNET should use the report and the lessons provided by economies with NQFs to facilitate ongoing dialogue between member economies and other Asia-Pacific economies on national qualifications frameworks.

- EDNET could extend the dialogue on the differences between the economies in their NQFs, or in their intentions towards them, and the advantages to be gained from understanding these differences and/or modifying their frameworks.
- The dialogue on NQFs should be closely linked with other work in the region on quality assurance and the recognitions of qualifications to ensure coherence and avoid duplication of research and development.

Recommendation 3. A proposal for a voluntary regional framework should be developed and disseminated amongst member economies for comment.

- The framework should be a set of qualifications level descriptors and/or domain based descriptors.
- If possible it should be aligned to core features of the European Qualifications Framework (EQF)
- The European Training Foundation (ETF) could be approached by EDNET for advice and support in investigating the development of the voluntary regional framework drawing on the core features of the EQF.
- An early assessment should be made of the costs of advice and support from the ETF and the costs of developments within the Asia-Pacific Region
- In support of this recommendation APEC could consider the complementary proposal in DEEWR (2008) for the establishment, in economies that do not presently have them, of National Information Centres on qualifications and course structures to provide information to potential users in other economies.

1. Introduction

This project was undertaken for the Asia-Pacific Economic Cooperation (APEC) Human Resources Development Working Group (HRDWG) Subgroup Education Network (EDNET). It has been undertaken by the Monash University-ACER Centre for the Economics of Education and Training (CEET) in a consortium with the Centre for Postcompulsory Education and Lifelong Learning University of Melbourne (CPELL) and the Victorian Registration and Qualifications Authority (VRQA).

The request was for research and analysis to map qualifications frameworks across APEC Economies with attention to:

- Qualifications frameworks and associated recognition tools;
- The uses and benefits of qualifications frameworks;
- Implementation issues including policy constraints;
- The linkages between qualifications frameworks and qualifications recognition;
- Quality assurance;
- Reviews undertaken in the APEC region in relation to qualifications frameworks or with a qualifications recognition component; and
- The feasibility of developing an Asia-Pacific Qualifications Framework having regard to possible models.

The Joint Statement released by education ministers at the 2004 APEC Education Ministers meeting in Santiago (the 3rd meeting of APEC Education Ministers) included: ‘economies need effective governance including transparent, accountable, regulatory, accreditation, and quality assurance systems’. This project responds to this priority.

2. Background and overview of frameworks in APEC economies

This section provides an overview of qualifications and qualification frameworks. It uses the issues and concepts identified in this overview to report on NQFs in the APEC economies. The information on the APEC economies was obtained from desktop work and contacts available to the team but has been supplemented with information from the survey described in section 3 and Appendix 2.

The changing nature of work creates demands for more flexible, multi-skilled workers who are mobile across the economy and internationally. For efficiency, and fairness, this requires that a qualification or skill, however or wherever acquired, should have common meaning among employers selecting workers throughout the country. For individuals it implies they should be able to have their qualifications and skills recognised for entry into further studies or relevant forms of employment over their lifetime.

NQFs classify qualifications according to criteria for learning outcomes achieved. NQFs, backed by a system of quality assurance, can contribute to improvement in matching workers to industry needs

and of individuals to education and training over their working lives. As outlined by Coles (2006 pp 5-6) NQFs can do this by:

1. *Establishing national standards and levels* for the outcomes of education and training, skills, and competences.
2. *Promoting quality* by ensuring the standards are met by education and training providers or authorities who issue qualifications. This implies an associated regulatory system of approval and monitoring of qualifications and providers of training and also provision of information on qualifications and providers to the users of the system.
3. *Facilitating comparison* among the levels and contents of qualifications so they can be compared with confidence by education and training providers, employers and individuals
4. *Promoting access* to learning and transfers to higher levels of education and training by clarifying the entry points to qualifications. This can be facilitated if associated with the NQF there is some structured method of recognising the volume and level achieved in a variety of learning for the purposes of credit into further learning.

Tuck (2007) outlined a set of ‘problems and needs’ (fairly similar to those outlined by Coles) which an NQF can help to address. They are:

- consistency in standards;
- quality assurance;
- the relevance of qualifications for users;
- international recognition;
- access of learners to qualifications; and
- progression routes.

2.1 Development and implementation of NQFs

Qualification frameworks are associated with reforms to the education and training system to provide for a more mobile workforce and to facilitate individuals to participate in education and training over their lifetime. Qualification frameworks have been associated with the shift from the content of education and training being under the control of providers towards the content being related to the achievement of knowledge and skills required in particular occupations as perceived by industry stakeholders, particularly in vocational education and training. This movement towards standards-based learning outcomes has led to the need for different forms of quality assurance for qualifications. At the same time it has created greater opportunities for credit for entry to further study of prior formal, informal and non formal learning.

The growth of the global economy has more recently increased the interest in comparing qualifications across economies. This is particularly relevant to migrant workers and also to the movement of international students. Economies increasingly reference their qualifications and their frameworks against those of other economies and form international agreements in relation to qualifications.

The literature on NQFs suggests several lessons for their implementation of NQFs (Coles 2006, 2008; Raffe et al 2008; Young 2006, 2008). These lessons include the need:

- to see NQFs as developmental entities to be built upon stakeholder commitment;
- to reflect national education and training system characteristics, and that this requirement limits the direct applicability of apparently attractive international innovations; and
- to avoid over-engineering qualifications systems and NQFs, especially in the less developed economies.

2.2 International and regional frameworks

The European Qualifications Framework (EQF) was adopted by the European Parliament and Council in April 2008. The EQF will support the correspondence between the member states' qualification systems. Some details are provided in Box 1 and further consideration will be given to the EQF in the conclusions to this report.

Box 1. The European Qualifications Framework (EQF)

The European Qualifications Framework (EQF) acts as a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning.

The EQF will relate different countries' national qualifications systems to a common European reference framework. Individuals and employers will be able to use the EQF to better understand and compare the qualifications levels of different countries and different education and training systems.

The EQF encourages countries to relate their qualifications systems or frameworks to the EQF by 2010 and to ensure that all new qualifications issued from 2012 carry a reference to the appropriate EQF level.

The core of the EQF are eight reference levels describing what a learner knows, understands and is able to do – 'learning outcomes'. Levels of national qualifications will be placed at one of the central reference levels, ranging from basic (Level 1) to advanced (Level 8). It will therefore enable much easier comparison between national qualifications and should also mean that people do not have to repeat learning if they move to another country.

The EQF applies to all types of education, training and qualifications, from school education to academic, professional and vocational. The system shifts the focus from the traditional approach which emphasises 'learning inputs' such as the length of a learning experience, or type of institution. It also encourages lifelong learning by promoting the validation of non-formal and informal learning.

Most Member States are now developing their own National Qualifications Frameworks (NQFs) to link into the EQF. The Commission, national authorities and social partners are working to implement the EQF through an EQF Advisory Group. The group's work is complemented by the Cluster on the Recognition of Learning outcomes, one of the eight clusters within the Education and Training 2010 Work Programme, which supports the validation of non-formal and informal learning (extract from EC 2009).

The EQF has been developed in parallel with some major sectoral agreements relating to qualifications. In higher education the Bologna Process is a commitment by forty-six European countries to undertake a series of reforms to achieve greater consistency and portability. The Bologna Process aims to create a European Higher Education Area by 2010 in which students can choose from a wide and transparent range of high quality courses. Key components of the Bologna Process include:

- mutual recognition of degrees and other higher education qualifications;
- transparency (readable and comparable degrees organised in a three-cycle structure) including a Bologna Framework of descriptors and credit accumulation system titled the European Credit Transfer Scheme (ECTS);
- European cooperation in quality assurance; and
- a structure for development and implementation built around biennial conferences of Education Ministers of the participating countries, supported by representatives of the universities and their students. These meetings take stock of progress over the last two years and set directions for the next two, including the identification of targets, common data requirements and indicators of progress; this work program is coordinated by the Bologna Follow-Up Group (BFUG) (EC 2009).

In vocational education and training in the EU the Copenhagen Declaration aims to:

- rationalise and clarify information about VET programs and exiting tools for mobility;
- develop reference levels, common certification principles as well as common measures, including a scheme for transferring credit between VET programs, the European Credit System for VET (ECVET) ;
- formulate common principles for validating non-formal and informal learning; and
- promote common criteria and principles for quality in VET programs (European Ministers 2002).

Both of these developments have taken place alongside work on the recognition of informal and non-formal learning within the EU, including the development of an inventory of methods and tools.

Regional frameworks are also under development in the Caribbean, the Middle East, and the Southern Africa Development Community.

2.3 Asia-Pacific initiatives

APEC, as stated earlier, has initiated the current study in response to the view of Education Ministers at their third meeting in 2004 that economies need transparent, accountable, regulatory, accreditation, and quality assurance systems for their qualifications.

Overlapping with this work of APEC was an announcement by Asia-Pacific Education Ministers meeting in 2006 (Asia-Pacific Education Ministers 2006) indicating their agreement to actively encourage and facilitate regional student and academic mobility and exchange, and address barriers to these activities. Ministers agreed to collaborate on:

- quality assurance frameworks for the region linked to international standards, including courses delivered online;
- recognition of educational and professional qualifications;
- common competency-based standards for teachers, particularly in science and mathematics; and

- the development of common recognition of technical skills across the region in order to better meet the overall skills needs of the economic base of the region.

At a follow-up meeting of senior officials in November 2006, it was agreed to undertake scoping studies to ascertain the current situation in the region and to determine where effort needs to be placed for future action.

Stella (2008) produced a report on behalf of the Asia-Pacific Quality Network for the Australian Department of Education, Employment and Workplace Relations (DEEWR) on quality assurance in higher education in the Asia-Pacific Region. The development of robust quality assurance is integral to the implementation of NQFs and the two areas need to be developed in tandem. The recommendations in that report regarding cooperative work on quality assurance are compatible with the findings of this current report on NQFs.

DEEWR (2008) released a report on the recognition of higher education qualifications for the region. The report recommended activities to promote awareness of the benefits of the recognition of qualifications, the establishment of *national information centres* on qualifications, and support for the development of NQFs. An example of this is the Australian national information centre AEI NOOSR¹. It advises on how Australian and overseas qualifications compare, to help overseas-qualified people study and work in Australia. AEI-NOOSR has developed education profiles on over 120 countries and provides assessments for a fee of the higher education, post-secondary and technical and vocational qualifications of other countries.

In relation to NQFs DEEWR (2008) supported consultation on the development of a broad, overarching regional qualifications framework, a mapping of higher education systems and structures, promotion of credit systems, descriptors in the frameworks based on learning outcomes, learning from the more developed frameworks and mechanisms to support development of NQFs while avoiding the problems of earlier ones².

2.4 Qualifications, qualifications systems, frameworks, credit systems and recognition tools

The following definitions have been used in this project, drawn largely from work carried out in the OECD activity on qualifications systems and lifelong learning (OECD 2006).

Qualification

A qualification is formal certification, issued by an official agency, in recognition that an individual has been assessed as achieving learning outcomes or competencies to the standard specified for the qualification title, usually a type of certificate, diploma or degree. Learning and assessment for a qualification can take place through workplace experience and/or a program of study. A qualification confers official recognition of value in the labour market and in further education and training.

¹ Australian Education International National Office of Overseas Skills Recognition

² Stephens et al (2008) undertook related work with a focus on the international recognition of Australian vocational education and training (VET) qualifications. Their report stresses the importance of the Australian Qualifications Framework supported by the quality assurance system (the Australian Quality Training Framework) and the role of the major stakeholder—industry—in facilitating international recognition. The similar development of NQFs in other countries, and preferably regional NQFs, is seen as important

Qualifications systems

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

National qualifications framework

A qualifications framework is an instrument for the classification of qualifications according to a set of criteria for levels of learning outcomes achieved. The criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of level descriptors. The scope of frameworks may be comprehensive of all learning achievement and pathways or may be confined to a particular sector for example initial education, adult education and training or an occupational area. Some frameworks may have more design elements and a tighter structure than others; some may have a legal basis whereas others represent a consensus of views of social partners. All qualifications frameworks, however, establish a basis for improving the quality, accessibility, linkages and public or labour market recognition of qualifications within a country and internationally.

A qualifications framework therefore is a formal classification arrangement, which contrasts to the mostly informal relational aspects of a qualifications system. Qualification frameworks are often expressed as diagrams of the main qualifications and the levels of these qualifications. Levels typically relate to either complexity of learning and/or the progression routes that learners take. Sometimes the NQFs include taxonomies of the type of learning outcomes to be achieved at each level. Learning taxonomies can include e.g. type of knowledge, degree of application, degree of autonomy and contextual statements.

Quality assurance

If education providers issue qualifications when the student has *not* achieved the learning indicated by the descriptors then employers and education providers will not value the qualifications or use them in their selection processes. Hence a qualification framework is only as strong as the *quality assurance system* supporting it. The quality assurance of qualifications includes meeting the requirements of the descriptors in the framework and the quality of the providers awarding the qualifications.

Quality assurance of qualifications typically involves three regulatory elements: accreditation, awarding and monitoring of providers. Variations in national qualifications, apart from their coverage of qualifications, typically relate to these three sets of variables:

- Accreditation may rest with a single or with multiple agencies, including self accrediting providers. Some NQFs have brought the accreditation of most groups of qualifications into a single qualifications authority or agency. In other NQFs the accreditation functions remain distributed across multiple agencies and providers.

- Award of qualifications can be carried out in various ways. In some countries a centralised agency awards groups of qualifications and in others awarding remains the responsibility of different awarding bodies and providers. There are no countries where all qualifications are awarded by a single central agency or authority.
- Monitoring of providers typically through an audit process involves some oversight of learning provision and assessments. This also can be located in a central qualifications agency or distributed across multiple agencies. Where these functions are distributed qualifications frameworks can be used as benchmark tools for the standards to be achieved in quality assurance.

Alongside the regulatory activities the provision of good information on qualifications and on the providers of education and training can assist the users of the system to choose effectively and thus exert market pressures on quality of the provision.

Where the quality assurance and information functions are handled by the body responsible for the NQF it can be said to be a *regulatory* one. That is the NQF has a formal role in the key processes for the delivery of a qualification. Through this role an NQF allows a qualification to be accepted as a nationally recognised qualification. Where none of these functions are located in an NQF the framework can be called *voluntary or enabling*. That is the framework is a tool or a set of tools that other agencies that are responsible for the accreditation, awarding and quality assurance can use as a tool to enhance and/or align these functions between qualifications and qualifications types. Regional frameworks like the EQF are enabling.

Credit systems

Credit systems have been developed in some countries to complement the NQF. These are typically a set of taxonomy based level descriptors designed to enable and support the development of courses and qualifications, compare and align qualifications and therefore enable stronger links between qualifications. The description of the credit system being developed for VET in Europe (ECVET) indicates it is based on dividing a qualification into units. Each unit is defined in terms of knowledge, skills and competences (KSC) and can be characterised by the *relative level of the learning outcomes* involved, which may be defined by a reference level in the EQF, and *by its volume* which may be expressed in points or other factors.

Recognition Tools

Some economies are developing Recognition Tools to make the meaning of qualifications more explicit for those using them, especially to employers and providers of education and training where a student may be seeking admission. The best known one is the *Diploma Supplement* which is a European initiative which aims to describe a higher education qualification in an easily understandable way and relate it to the higher education system within which it was issued.

Australia has recently established a form of Diploma Supplement called the *Australian Higher Education Graduation Statement* which all higher education providers can issue. It is currently being introduced on a voluntary basis (commenced from the end of 2008). It has five mandatory sections:

- The Graduate - personal details (name, student number)
- The Award – details of the level of the award, pathways and course accreditation

- Awarding Institution – the name and details of the institution
- Academic Record – an academic transcript
- Description of the Australian Higher Education System

Another initiative is the *Europass Certificate Supplement* for people who hold a VET certificate; it adds information to that which is already included in the official certificate, making it easily understood by employers or institutions outside the issuing country. The information in the Europass Certificate Supplement is provided by the relevant certifying authority.

Complementing these approaches, to improve the transparency of qualifications across country borders some countries have set up national information centres on qualifications to support the recognition of qualifications across countries. As discussed above, DEEWR (2008) recommended the development of information centres across the Asia-Pacific region.

2.5 Types of NQFs implemented

There are considerable differences among NQFs in the countries that have adopted them (Coles 2006). Such differences include whether the NQF involves:

- all education and training and qualifications, or just some sectors and qualifications;
- a number of levels (eg 8 in the EQF);
- level descriptors for units of learning or descriptors of broad qualification levels;
- descriptors defined against a taxonomy of learning outcomes (e.g. complexity of knowledge, and skill, application, autonomy) or by learning inputs;
- measures of the volume of learning (e.g. 10 learning hours = 1 credit);
- formulae for the volume and level of units needed for qualifications to be obtained (e.g. 100 credits at level 3 for a Certificate 3);
- a public register and information system on qualifications, pathways and providers and (preferably) their performance;
- occupational competency standards (nearly always in the VET sector) or other measures of learning;
- associated Recognition Tools to improve information on the value of qualifications;
- associated credit framework to estimate the level and volume of learning in various qualifications and in non-formal and informal learning to assist in transfers within the system, in employment selection and to support qualification design;
- regulatory quality assurance functions by the national NQF agency, or distributed to other institutions;
- links to other frameworks including regional frameworks;
- legal control, or voluntary involvement;
- development and control by a national NQF agency, or development managed by stakeholders,

This list of key features is used below as the basis for discussing the NQFs of the APEC economies that have introduced them. It might seem desirable for an NQF to have particular features, and

indeed to have a similar form across all education sectors. However, the form of NQF adopted is dependent on the circumstances of the particular economy. Stakeholder support—from other sectors of government, industry, providers and students—is vitally important for the development of trust in qualifications.

2.6 APEC NQFs: information from desktop work and survey

A range of published and web based documents were analysed to give a basic overview of the extent to which economies had introduced NQFs and their features. The details here have also been supplemented with information in the surveys by member economies. Section 3 below draws on the surveys to provide a richer insight into the reasons for the development or non-development of NQFs, the benefits of NQFS and the support for regional frameworks.

Table 1 indicates which economies have frameworks or are developing them. It was constructed on the basis of a desktop scan and the survey. It shows that seven economies have whole or partial frameworks and that there are varying developments under way in another six economies. Of the remaining eight, some have expressed interest but there is no evidence of development of an NQF.

The broad features of the NQFs in the seven economies that have introduced them are outlined in Appendix 1 and summarised in Table 2. Table 2 shows:

- Five of the economies have NQFs covering all sectors—senior secondary, VET and higher education—but in all cases there are differences across the sectors in the nature of the framework and its application.
- Five of the economies have explicit levels of qualifications and two have them implicitly. For example Hong Kong SAR's has explicit 7 levels, Malaysia 8 and New Zealand 10.
- Most NQFs contain descriptors of qualifications and units, and have descriptors based on a taxonomy of learning outcomes for the VET sector.
- Six economies have measures of the volume of learning; five have formulae for the volume of learning required to achieve a particular qualification (which can be useful in the development of credit frameworks).
- New Zealand and Singapore and one Australian state have developed credit frameworks. All seven economies maintain a public register of qualifications.
- Competency standards are set in the VET sector in all seven economies.
- Recognition tools are being introduced in Australia and are under discussion in New Zealand but have not been reported to be under consideration in the other five economies with NQFs.
- The NQFs in each economy are managed by a national agency.
- Compliance with the NQF is supported by systems of quality assurance though it tends to be shared by a number of agencies, with higher education, VET and school qualifications usually handled separately.
- The frameworks have been supported by legislation or by government regulation.
- To date the NQFs are not linked to regional or international frameworks.

Table 1. APEC economies with and without NQFs

<i>APEC economy</i>	<i>Framework</i>	<i>Completed survey</i>
Economies with NQF		
Australia	All sectors, but VET and higher education somewhat separate	!
Hong Kong, SAR China	All sectors, but some industry areas still to be included	!
Malaysia	All sectors, but early stage of implementation	!
New Zealand	All sectors but differences for VET and higher education	!
Singapore	VET only	
Thailand	Higher Education only	!
The Philippines	All sectors included, but sectors managed separately	!
NQF in development		
Brunei Darussalam	In development	!
Canada	Proposed, one province Ontario has a partial framework	
Chile	In development	
Mexico	In development, details not yet available	
Republic of Korea	In development	!
Russia	In development	
No NQF		
Chinese Taipei	None	
Indonesia	None, but support for the concept	!
Japan	None, but likely	!
Papua New Guinea	None	
People's Republic of China	None	
Peru	None	
United States	None, some support but unrealistic in their federal system	!
Viet Nam	None	

Table 2. Key aspects of qualifications frameworks in APEC

<i>All qual's or just some sectors</i>	<i>A number of levels</i>	<i>Level descriptors for units or for qual's</i>	<i>Descriptors on taxonomy of learning outcomes or inputs</i>	<i>Measures of volume of learning</i>	<i>Formulae for volume and level for qual's</i>	<i>Register and public information system</i>	<i>Occupation/competency standards,</i>	<i>Recognition Tools</i>	<i>Credit framework for level and volume</i>	<i>Quality assurance (QA) by NQF agency</i>	<i>Links to other frameworks e.g. regional frameworks</i>	<i>Legal control, or voluntary involvement</i>	<i>Control by a NQF agency, or by stakeholders</i>
Australia													
All nationally recognised qualifications are included in the AQF	Level is not specified in the framework; but there are implicitly 11 levels	Descriptors for qual types. Approach differs across sectors	No explicit taxonomy but descriptors for each qual refer e.g. to knowledge, skills, performance and responsibility	Only for higher education measured in duration of months or years	No	The AQF Register has six sub-categories	Competency standards for VET. Not for schools or higher education	Australian Higher Education Graduation Statement introduced in 2008, to be implemented over 5 years	The state of Victoria has developed a unit based credit framework	AQF Council oversees the AQF; QA functions are distributed among the separate sectors and jurisdictions	No, but being explored	Legal with state and national legislation	Managed by Australian Qualifications Framework Council from 2008; previously by an advisory board.
Hong Kong SAR													
The HKQF covers academic, vocational and continuing education	7 levels with 7 the highest	Descriptors for units in vocational competencies developed by Industry Training Advisory Committees (ITACs)	4 elements: Knowledge/ Intellectual Skills; Processes; Application, Autonomy/ Accountability ; ICT and Numeracy	1 credit = 10 notional learning hours	Yes, eg Diploma at level 3 to level 7 ≥ 120 HKQF credits	Hong Kong Council for Academic Accredit. and Vocational Qual's (HKCAAVQ) maintains the Qual's Register	Yes for vocational education developed by ITACs	No information	A credit framework is being developed under HKQF	HKCAAVQ accredits and registers VET. Publicly funded universities have separate QA	No	Legal	National agency HKCAAVQ
Malaysia													
Malaysian Qual's Framework (MQF) for Skills, VET sectors, Higher Education and processes for Lifelong Learning.	8 levels: 5 for the Skills Sector/ VET sectors; 6 for Higher Education, three overlapping	Descriptors of qual's based on learning outcomes	Implicit 5 outcomes: complexity of knowledge; application; autonomy communication skills; breadth etc of practice	1 credit = 40 hours learning or academic load (all the learning activities)	Yes, eg bachelor degree 120 credits, certificate 60 credits under development	Register and public information on qual's and providers	Competency standards for skills and VET sectors, learning outcomes for Higher Education	No	Credit system being developed	Malaysian Qual's Agency (MQA) for higher education and Register; QA Unit for Polytech etc	No	Legal with state and national legislation	MQA implements and supervises the MQF

<i>All qual's or just some sectors</i>	<i>A number of levels</i>	<i>Level descriptors for units or for qual's</i>	<i>Descriptors on taxonomy of learning outcomes or inputs</i>	<i>Measures of volume of learning</i>	<i>Formulae for volume and level for qual's</i>	<i>Register and public information system</i>	<i>Occupation/competency standards,</i>	<i>Recognition Tools</i>	<i>Credit framework for level and volume</i>	<i>Quality assurance (QA) by NQF agency</i>	<i>Links to other frameworks e.g. regional frameworks</i>	<i>Legal control, or voluntary involvement</i>	<i>Control by a NQF agency, or by stakeholders</i>
New Zealand													
NZ has an NQF for the whole education sector	10 levels—levels 1 to 7 for certificates; 5 to 7 for diplomas; levels 7 to 10 for bachelor and higher degrees	Level descriptors for units and qual's	A taxonomy of process, learning demand and responsibility for levels 1-7; knowledge and skills statement for levels 8–10	Credits, reflecting the time a typical learner takes, 1 credit = 10 hours learning	A formula for the credits required at specified levels. 1 credit = 10 hours of learning	The NZ Register of Quality Assured Qual's includes national qual's and other quality assured qual's	Occupat'l competency standards or learning outcomes are specified in a common outcome based format	NZ Qual's Authority (NZQA) has released a discussion paper seeking feedback on the Diploma Supplement	System of credits includes a credit framework	NZQA administers NQF and QA of VET; NZ Vice Chancellors Committee deals with universities	No	Legal	NZQA has the major functions from senior secondary schools to VET and for international students
Philippines													
PNQF - three parts—basic ed., technical-vocational education and higher education	Implicit levels in separate sectors	Level descriptors for units and qual's	For TVET the taxonomy is: process, responsibility and application	For TVET by the number and content of units of competency in the qual	Explicit volume measure not reported	A register in each sector	Yes in TVET	No	The 'ladderization' of qual's allows for credit towards higher qual's	TESDA for technical and vocational; Commission on Higher Education (CHED) for higher ed.	The PNQF aims to enhance international recognition but is not linked to other frameworks	Legal under instruction from the President	Managed by TESDA and the Federation of Accrediting Agencies (FAAP) and (CHED).
Singapore													
Singapore Workforce Skills Qual's (WSQ) system, only for VET sector	7 levels	Descriptors for both units and qual's.	Yes:— complexity: knowledge and skills; problems applied to; independence etc; and occupational levels.	Recommended Training and Assessment Hours (RTAH) 10 = 1 Credit Value	Yes, eg Certificate =10 credits value, Diploma =20 credit value	Register	Competency standards	No	Levels and credits are assigned to units in a qualification	Qual's issued by Workforce Develop. Agency (WDA). QA: pre-delivery by approval of courses/ providers & post-delivery monitoring	No	Legal	Control by the WDA
Thailand													
For higher education only.	6 levels	Yes	Yes	Yes	Yes	Yes	Outcome based approach	Not yet	Yes	Commission on Higher Education - Bureau of Standards & Evaluation	Not yet, pending full implementation of own framework	Legal under the Commission on Higher Education	Commission on Higher Education

3. The survey and findings

3.1 Questionnaire

Two questionnaires were prepared for this study. One questionnaire was for economies that had an NQF or had one under development. The other questionnaire was for economies that do not have an NQF. They were trialled with several economies and subject to extensive review in Australia. The questionnaire and the accompanying explanatory statement are included in Appendix 2.

For economies which have an NQF the questions related to:

- The factors that led to the introduction of the NQF
- The main benefits to be achieved through the establishment of the NQF
- The structure of the NQF
- The development of Recognition Tools
- Quality assurance
- Achievements and limitations of the framework
- International frameworks
- Possibility of an Asia-Pacific Qualifications Framework
- Other comments or suggestions about qualifications issues your economy or this project

For economies without an NQF the questions related to:

- The qualifications system in the economy
- The development of Recognition Tools
- Quality assurance
- Consideration of a NQF
- Possibility of an Asia-Pacific Qualifications Framework and
- Other comments or suggestions about qualifications issues in your economy or this project

3.2 Responses to the questionnaire

Of the 21 economies 11 responded to the questionnaire including, six with frameworks in place and one in the process of implementation. Another four were considering or developing frameworks. The economies with frameworks responding were Australia, Hong Kong SAR China, Malaysia, New Zealand, Philippines and Thailand. The Republic of Korea is starting to implement its framework. Three economies without frameworks which responded, Brunei Darussalam, Japan and Indonesia were giving consideration to a framework. The US also responded. With a federal system of government where education and training is very largely a state responsibility it is not contemplating a national framework though it has in place ways of achieving several of the outcomes for which a framework is designed, as will be discussed.

The survey information has been drawn on for the reports on the economies with frameworks provided in section 2 and that information is not be repeated here. Rather, this section considers, for the economies with or implementing frameworks:

- The factors that led to the introduction of the NQF;
- The main benefits to be achieved through the establishment of the NQF;
- Achievements and limitations of the framework; and
- International frameworks and the possibility of an Asia-Pacific Qualifications Framework.

For economies without a NQF consideration is given to:

- The qualifications system in the economy;
- Consideration of a NQF; and
- Possibility of an Asia-Pacific Qualifications Framework.

The introduction of the NQFs

Qualification frameworks are a recent phenomenon with the New Zealand and the Australian frameworks introduced in the 1990s. Hong Kong SAR, Malaysia, Philippines and Thailand have introduced theirs in the 2000s and, notably in Malaysia and Thailand, the implementation is still in progress.

In New Zealand the need for reforms to skills training led to the establishment of the New Zealand Qualifications Authority. As part of its work it embarked wide consultations concerning an NQF that led to its introduction

In Australia the development of an NQF, only a little later than NZ, followed extensive reform in the vocational education and training sector including the development of competency based training and concern for national recognition of training. With a federal structure of government, the Australian Qualifications Framework (AQF) was established by the council of national and state ministers for education. The development was undertaken by a taskforce which carried out consultations across government and industry stakeholders. The AQF encompassed senior schooling, vocational education and higher education qualifications but the three sectors remain fairly separate to date.

In Hong Kong SAR the initiative came from the government department, the Bureau of Education, which was concerned with the proliferation of qualifications, quality assurance and cross sectoral articulation to support lifelong learning.

In Malaysia what is now called the Malaysian Qualifications Agency undertook wide consultation in 2003 and drew on the practices of New Zealand, Australia, England and Wales in developing an integrated system. The response to the survey by Malaysia indicates that implementation did not occur until 2007 and several parts of the structure of the framework are still under discussion.

In The Philippines the idea for a NQF was proposed by the Technical Education and Skills Development Authority (TESDA) in 2004 and has been developed as a three sector system with

higher education under the Commission on Higher Education (CHED), the technical and vocational education system under TESDA and basic education under the department of education. All sectors are subject to overarching coordination by the Presidential Taskforce in Education (PTFE), which it has been agreed, will consider further developments in the framework.

Thailand is still in the process of implementing its framework and expects it to be fully implemented in 2010. It was set up in 2003 by the Commission on Higher Education and applies only to higher education.

In the Republic of Korea, the National Qualifications Framework has been initiated by the Korea Research Institute for Vocational Training (KRIVET). It is intended to build on the National Technical Qualification Framework. The proposal has not yet been fully accepted by all sectors.

The benefits

The economies which have introduced NQFs expect considerable benefits especially if backed by a good system of quality assurance, and a good information system on qualifications and providers. The NQFs are expected to contribute to improvement in matching workers to industry needs and of individuals to education and training over their working lives.

The returned surveys indicated that nearly all the benefits specified were seen to be very important or important for all groups and institutions concerned. Benefits are expected for students and workers, for employers including trust in qualifications, for education and training providers and for government authorities including the more consistent design of qualifications. The NQFs are seen to promote international recognition of the economy's qualifications.

Achievements and limitations

The achievements of the qualifications frameworks so far are largely in terms of the extent to which they have been implemented. The limitations refer to the extent to which an integrated system has been achieved across higher education, vocational education and senior secondary, resistance by particular sectors, the difficulties of implementation in a federal system, such as Australia, and the development of clear descriptors, based on outcomes.

International frameworks and an Asia-Pacific Qualifications Framework

None of the economies returning the survey is linked to an international qualifications framework. Some have taken advice from economies such as Australia and New Zealand that have longer established frameworks. There is general endorsement of the idea of an Asia-Pacific Education Framework as supporting recognition of qualifications and mobility of labour and students. A regional framework seems to be supported as a model to relate to, not one to which the member economies should commit to or have a legal obligation. The costs of aligning with a new structure especially while at an early stage of implementation of their own NQF is reported as an issue in implementation.

Economies without a NQF

Only five surveys were returned by economies that did not have an NQF: The Republic of Korea which is proceeding with implementation, the small economy of Brunei Darussalam and the huge

economies of Japan, Indonesia and the United States. What needs to be noted is that these economies do have systems of qualifications and a range of systems for quality assurance.

The need for a framework in an economy as small as Brunei Darussalam might not seem so obvious given that national oversight can be exercised fairly directly by the government, however, Brunei Darussalam does support the introduction of an NQF.

Japan responded only in relation to higher education. It did indicate support for the development of an NQF and support for an Asia-Pacific model.

Indonesia does not have a clear hierarchy of national qualifications. The government and a range of stakeholders are reported to support the introduction of an NQF. There is also support for the concept of an Asia-Pacific Qualifications Framework.

The major issue with the United States is that responsibility for education and training remains firmly with the states—in contrast with the Australian federal system where the Australian Government has a substantial role in education and training. Despite the lack of a framework the information supplied by the United States indicates a considerable degree of commonality in qualifications across the country and an extensive range of provision for registration of providers and accreditation of qualifications. Some of this is via regulated occupations and professional associations. Some is via the state accreditation for education institutions.

The US is taking active part in the development of recognition tools and is participating in activities with UNESCO's Council for Higher Education Accreditation (CHEA) to combat 'diploma mills'. There is also a requirement for all accredited tertiary institutions to maintain websites with detailed information—the provision of information to the potential students and to other institutions enables market pressures to provide quality assurance in deterring students from attending poor performing institutions.

The United States is unlikely to implement an NQF. It has reservations about an Asia-Pacific Qualifications Framework other than a non-binding model framework. Despite this the US demonstrates that it is possible to achieve many of the desired benefits of a NQF with good systems of quality assurance and good and transparent information on education and training providers.

4. Discussion and recommendations

This section aims to draw together the analysis and data in order to:

- provide conclusions in relation to qualifications frameworks and recognition tools in the APEC region including the feasibility of an Asia-Pacific Qualifications Framework;
- identify issues, needs and possible future areas of collaboration and cooperation in the field of qualifications frameworks; and
- make recommendations on measures or actions to assist APEC economies individually or collectively improve arrangements.

4.1 The foundations for NQFs

National qualifications frameworks (NQF) are a product of national sets of qualifications, the institutional structures associated with their accreditation, award and quality assurance and the relationships between qualifications. The economies of the APEC region represent a diversity of *traditions in education and training and in national characteristics*. The education and training systems in some economies have been influenced by European systems—and differences can be traced to British and Latin approaches in education and training. Other economies, notably those in Asia have built their qualifications upon long standing national approaches.

Differences in the *governance structures* of economies, e.g. federal structures of government, have influenced qualifications and in particular the capacity to introduce particular form of NQF.

Within this context it is difficult to locate common themes and even more difficult to locate common structures. At this stage just over half the APEC economies have or anticipate having an NQF. Amongst those economies that do have frameworks there is no common type, or even a shared type—unless described in the broadest of terms. On the other hand there are some common *internal themes* in education and training that can be used as starting points in drawing together the findings of this study:

- All systems to identify at least three sectors in education and training:
 - School education, for the purposes of NQFs upper secondary education. All economies have formal qualifications for this phase, which are subject to some form of quality assurance or validation. The phase typically is 2 or 3 years (or both) and is sometimes a common phase for all students or more frequently separated into types of general and vocational studies and qualifications.
 - Technical and vocational education (TVET). The arrangements across the APEC economies are heterogeneous with the sector providing certificates, diplomas, associate degrees, licencia, etc.
 - Higher Education. The arrangements across economies are diverse with some similar to the Bologna structures and include short and long cycle programs. The array of qualifications is considerable.
- All economies are aware of the changing context for qualifications. While the rhetoric of lifelong learning is not as pronounced as it is across OECD and EU documentation all economies are

aware of the greater international exposure of qualifications and the associated issues of quality assurance and recognition.

- Most economies have faced issues in the relationships between qualification across sectors and the relationship between the agencies responsible for these qualifications. All economies have multiple agencies that are responsible for the accreditation, award and quality assurance of qualifications.
- In most economies there has been some movement in these arrangements designed to facilitate the alignment of qualifications and/or bring greater quality assurance to the accreditation and awarding of qualifications.
- As a consequence the situation in many, and perhaps most economies with regards to the agency responsibilities for accreditation, award and quality assurance is dynamic. Several economies in their survey responses anticipated some imminent developments in key aspects of their qualifications systems and frameworks.
- Most economies indicated interest in international developments in qualifications, qualification systems and qualification frameworks.

4.2 National qualifications frameworks

Of the 11 survey returns six economies indicated that they had NQFs, and two indicated development under way. Amongst the non-responding economies in APEC there are examples of those that have frameworks (Singapore), those known to be developing them (Chile and Mexico) and one that has frameworks in one province (Canada).

Purposes

NQFs are seen as contributing to improvements in matching workers' skills to industry needs facilitating lifelong learning and training. As has been the case across the globe the NQFs represented across the APEC economies are diverse in their structure, coverage, operational purposes and governance. Most share the purposes of providing greater transparency for qualifications, support for skills standards systems, means of managing quality assurance in the context of the proliferation of qualifications, and the international recognition of qualifications. Few of the economies use the NQFs as a basis for credit systems, so far.

Types

There are several continua that can be used to describe NQF types and that were reflected in the construct of the survey instrument. Broadly:

- All classify qualifications by level, explicitly or implicitly;
- Most NQFs are regulatory in that they are designed to support quality assurance either or both through the inclusion of qualifications within the framework and the provision of a register, or involve the supervision of accreditation, awarding or auditing of qualifications;
- Most anticipate the facilitation of credit transfer and the recognition of prior learning including non-formal and informal learning, but most do not as yet have dedicated tools for these

purposes—although they could be developed from those NQFs which include measures of volume.

- All are descriptor based, but in different ways. There is variation as to whether the descriptors are for qualifications/qualification types, units of learning, or taxonomies of domains of learning. Several NQFs have multiple types of descriptors.

Governance

NQFs have a legislative base or are the result of regulation or agreements among government sectors and their agencies. Most have the endorsement of ministers of governments, and in several cases ministers have been central to the initiatives that resulted in the frameworks. There is a national agency responsible for NQFs in each economy, although in several this agency is located within an already existing agency.

The characteristics of governance are influenced by three other sets of variables:

- Of those economies that are federations (Australia, Canada, USA) one has an NQF (Australia), one a framework in part of the country (Canada—although it is currently developing an NQF) and one that has no framework (USA—and is unlikely to develop one). Clearly within federations where responsibility for education and training is located at the provincial level it is more difficult to establish an NQF.
- Across most economies there have been two government departments that have been responsible for qualifications: education and labour. In the responding economies NQFs can be seen to have largely emerged from the VET sector because of the evolution of industry skills standards and standards based qualifications. On the other hand there appears to have been some shift in responsibility for education and training from ministries of labour to ministries of education, especially at the secondary education level.
- The higher education sector is diverse and in most economies the traditions of university autonomy have prevailed. This appears to have had two sets of impacts. On the one hand this autonomy has been a barrier to the development of an agreement to an NQF, especially where the frameworks are accompanied by quality assurance and accreditation systems that are external to the providers. On the other hand, as was the case with the Bologna processes in Europe, there is a greater need to establish qualifications frameworks because of the absence of standards in the education sector.

Benefits

The survey instrument nominated a range of benefits that had been identified from the literature that came mainly from national qualifications agencies across the globe. As Coles (2006) has noted the evidence for the realisation of all of these benefits is more difficult to locate. Some responses to the survey indicated that all of the benefits were either objectives or outcomes of the NQFs. However most responses were more qualified and the main benefits were seen as the following:

- A mechanism for establishing and aligning standards for vocational qualifications;
- A mechanism for benchmarking qualifications;

- Support for quality assurance systems, especially where there has been a proliferation of qualifications;
- Support for international recognition of qualifications; and
- Linking qualifications.

Structures

NQFs across the APEC economies are diverse in their structures:

- Most cover all sectors. One is confined to vocational and another to higher education qualifications;
- All are located in some type of national agency. However, the size and resources, functions, independence from sectoral agencies and functions of these agencies vary across economies.
- Most involve levels, and the number of levels varies, to a maximum of 11 in the APEC economies;
- Some have qualification type descriptors, a small number have unit descriptor and several have taxonomies of learning domains;
- Most have a capacity to measure and/or align the volume of learning;
- Some are explicit in supporting the recognition of prior learning/informal learning;
- Some are designed to support credit systems;
- In all the APEC economies with NQFs there is a register of qualifications and some are pursuing a recognition tool in the form of the EU diploma supplement.

Quality assurance

Quality assurance is possibly the most central part of NQFs. The quality assurance functions can be located in the agency responsible for the NQF or they can be distributed to other agencies across the sectors. While most economies give a degree of autonomy to higher education and to some vocational education and training providers for the accreditation and award of qualifications most have some type of agency oversight of these functions.

The agencies that conduct this oversight range from qualifications authorities, government departments, more independent bodies—commissions, councils, boards and institutes. In some economies professional associations and provider associations perform quality assurance functions.

Quality assurance also takes several forms. While several economies have self accreditation for their qualifications in higher education, most have procedures for including them on any national (or regional) register, and several link the accreditation and award functions to forms of licensing.

The OECD (2009) in a recent review of Australian vocational education and training has drawn attention to the need for closer quality assurance of assessment before the award of qualifications.

As noted, quality assurance can be supported by the provision of good information including a public register of providers and qualifications. This information can enable increased user understanding of

the system and allow them, where choice is available, to exert pressure on providers to provide quality education and training.

Constraints and problems

The most frequently cited constraints were those of acceptance and understanding of the NQF across these various agencies and sector authorities. In particular most systems face the on-going challenge of maintaining wider user acceptance and understanding of the NQF. Some economies have faced direct resistance from some sectors to the inclusion of their qualifications within the NQF. Those economies with highly distributed regulatory arrangements face the constraints of maintaining those arrangements within the NQF. Conversely the more centralised NQFs have the challenge of maintaining a dynamic capacity across their qualifications system.

Variations of this issue are challenges of accepting new qualifications within the NQFs, on going tensions between sectors because of different genre of qualifications and the associated issue of the relative levels of qualifications, and thus the challenges of maintaining multiple sectors within a single NQF. Of course several NQFs have avoided or reduced this problem through sector based qualifications or by having a umbrella type of framework.

Support and achievement

The main achievement of NQFs is their acceptance by the wide range of sectors, agencies and stakeholders. This could be regarded as a self serving achievement but it does mean that there is an acceptance of the idea of a national qualifications' system' and that these systems are more than the sum of their parts. That is the systems embody relationships between qualifications and the associated potential or capacity for links between qualifications, stronger and more consistent quality assurance arrangements and the wider recognition of national qualifications. Some economies are able to report some more tangible outcomes in the form of credit and recognition. It is this range of activities that enhance trust and transparency in qualifications that is supported by an NQF.

Further challenges

Because most NQFs are in their early stages the most common challenges are those of continued development, dissemination and stakeholder engagement. In some cases there is the challenge of convincing or negotiating with a non-participating sector to embrace the NQF. All NQFs face the challenge of the changing international contexts.

International links and APEC regional framework

Several economies indicated that they had observed developments in other economies, especially in New Zealand and Australia, and that of South Africa outside of APEC. This is to be expected as these economies were the first to establish NQFs. The degree of influence of these economies' NQFs on developments in APEC is difficult to gauge. The NQFs across each of the APEC economies do vary in their levels, descriptors, volume measures, and the way they cover the separate sectors.

All economies see benefits in linking their NQFs internationally. The advantages that such links can bring are the greater potential for international recognition of national qualifications, the facilitation of the mobility of labour and students and the liberalisation of trade in education and training.

Most economies who responded to the survey indicated support for the development of a regional framework across the APEC economies. However, few reasons were given for this. Several economies expressed caution, and some insisted that any such development would need to be based upon a voluntary relationship with each member country NQF and qualifications system. Some raised the question of whether the regional framework should be cross APEC economies rather than some other regional groupings of economies. Some economies indicated that any regional development should be based upon the EQF.

The barriers to a regional framework included the fact that most economies are in the early stages of NQF developments—although in the EU this was reasons for developing the EQF, as a basis for guiding the subsequent development of NQFs—the costs of the development, and how such a framework would be administered and maintained.

4.3 The feasibility of developing an Asia-Pacific Qualifications Framework

Following the terms of reference for this project we refer to an Asia-Pacific Qualifications Framework (APQC) rather than specifically to an APEC framework.

There are four regional frameworks which are briefly discussed as a preface to considering an Asia-Pacific framework. There is the EQF and those in development in the Caribbean, Southern Africa and the Middle East.

The EQF provides a benchmark for regional frameworks. It is based upon three domains and an eight level set of descriptors and provides a benchmark for member countries to align their own qualifications and NQFs. It does not require countries to change the core structure of their qualifications and NQFs, but as a benchmark it mediates the alignment of qualifications across member countries. So member countries continue to have NQFs with different numbers of levels and different types of descriptor domains to those of the EQF. The EQF is also accompanied by the Bologna and Copenhagen processes that have similar objectives of comparability and consistency between qualifications.

The developments in the Caribbean appear to be an extension of some shared qualifications, including the Caribbean Secondary Education Certificate and Caribbean Vocational Qualifications. The Southern African Development Community (SADC) agreed to establish a SADC Qualifications Framework over the period 2005-2010 although progress appears to be slow (Mudzi 2005). Within the widespread development of NQFs across Middle East and Gulf states the option of a regional framework is being considered³.

The Southern Africa, Caribbean and Middle East developments have particular sets of circumstances: the existence of an infrastructure in the SADC and the established South African NQF; cross national infrastructure and qualifications in the Caribbean; and simultaneous developments of NQFs in the Middle East. None of these conditions exist across the APEC region, which is much larger and more diverse than these three regions.

³ Correspondence with Edwin Mernaghn, consultant Qualifications Framework Project Abu Dhabi.

As noted the responses to the survey supported the concept of a regional framework. The reservations included that any development and its outcome should be voluntary and should not be a costly exercise.

Any APQC could not have ambitions that approached those of the EQF in cost, or for that matter those of the SADC and the Caribbean countries. As a framework it would need to be a relatively modest instrument, both in terms of its developmental costs and its maintenance, and in its relationships with sets of national qualifications and qualifications frameworks.

In this sense an APQC could have one or more of three facilities:

- a benchmark for levels of learning,
- a mechanism for measuring volume, and
- a language for comparing areas and levels of learning (e.g. level of knowledge, application, autonomy and judgement).

Economies could choose to use the APQF for:

- alignment of sets of their qualifications with the levels of the regional framework;
- comparing and align qualifications across economies; or
- submitting their qualifications to an APQF agency for alignment and location within its register.

In regards to the feasibility of an APQF there are four sets of questions that might be considered.

1. Are there problems or needs in regards to qualifications and NQFs across the region that a regional framework would help to resolve?
2. Would it be feasible to negotiate a voluntary regional framework given the diversity of the economies?
3. Would it be worth the investment, and what resources would be needed for its maintenance?
4. Are there better alternatives to addressing the problems and needs?

Problems and needs: Using Tuck's 2007 sets of 'problems and needs' the issues to be considered include: access of learners to qualifications; progression routes; the relevance of qualifications for users; consistency in standards; quality assurance; and international recognition. All of these needs exist across the region. It is likely that a regional NQF could meet some of these needs but the returns for the investment would be modest and patchy in the short term.

A voluntary framework: The response to the survey in this project indicates that only a voluntary or enabling APQF would be acceptable, not one that had binding force within an economy. Given this, it would be possible to have volunteer economies work on a framework? The APEC economies as a group lack some of the conditions that have favoured other regional framework: a political constitution and other social and economic institutions of the EU; common qualifications in the Caribbean; the economic centrality of South Africa in southern Africa and the longevity of the SANQF; and shared cultural foundations, similar labour force needs, and a common momentum of

NQF development in the middle east. It also needs to be noted that only the EQF has reached the point of having any real impact as a regional framework.

Given the diversity of economies and the size of the region it might be feasible for APEC to invite its member economies and other Asia-Pacific economies to convene to look at the option of a limited regional qualifications framework. It seems likely that only those economies that have or are developing NQFs are likely to take part.

Level of investment: To establish a regional framework of the EQF type could be relatively expensive. The initial development exercise would need to examine the qualifications systems and NQFs of volunteer economies, negotiate the broad parameters of the regional framework (e.g. whether it is based upon level descriptors, domain descriptors, qualifications descriptors, etc), and then negotiate the details of the proposed framework. A framework would also need to be maintained and monitored. This would involve some means of assessing whether it is providing the enabling function for member economies. Given the characteristics of the APEC region any initial investment would need to be modest.

An alternative: An alternative to the establishment of an APQF is to utilise the EQF. It should be noted that a considerable number of non-EU countries, albeit within or close to the European region, have joined or adopted the EQF on a voluntary basis. This has been encouraged by the EU and facilitated by the European Training Foundation (ETF).

There would appear to be three options for APEC economies in regards to the EQF:

1. volunteer to join by aligning their NQFs with the EQF;
2. the APEC secretariat could approach the ETF to investigate the possibility of building an Asia-Pacific chapter to the EQF; the chapter would effectively use the EQF as a facility to aid articulation between qualifications of economies in a voluntary basis across the region;
3. establish a regional framework that utilises the core features of the EQF—eight levels and possibly generic level descriptors derived from the domain descriptors of the EQF and seek some support from the ETF.

This report has shown that there is considerable variation in the NQF types across those economies in APEC that have developed them. In this sense the EQF is as good a fit for a regional framework as any of the of member economies NQFs, despite the fact that some economies reported referring to the longer standing NQFs of New Zealand and Australian in their own NQF developments.

The question of why any regional framework should be different to the EQF can also be asked. While it cannot be assumed that the EQF is an intrinsically optimal framework it is likely that its representative characteristics towards European country qualifications will also apply reasonably well to those of most of the APEC economies, given the influence of European qualifications upon qualifications structures in a large number of APEC economies.

The complexity of these sets of questions about an APQF suggests that more dialogue between interested member economies should take place. The suitability of the EQF or at least its core features should be considered further.

4.4 Conclusions and Recommendations

The APEC region is similar to other international regions with a significant number of economies having or developing NQFs. The region is quite eclectic including economies from East Asia, South East Asia, Australasia and the Pacific, South America and North America. While extensive desktop research was undertaken for all economies only 11 responses were received to the survey, mainly from those with NQFs. Therefore generalisations about the region must be drawn with caution.

Some other regions, notably Europe, North Africa, Southern Africa and the Middle East are more active than the APEC region in the development of NQFs. Yet the APEC region includes economies in the first and second waves (Coles 2006; Tuck 2007) of NQF development. Therefore, there is a considerable amount of experience of the NQFs across the region.

There is also a strong interest in sharing information and experiences across the region. Most economies that have recently developed or are developing NQFs have looked within rather than beyond the region for guidance and lessons.

The EQF development did not depend upon a high degree of congruence in NQF types across its region. Indeed the UK (Wales, Scotland, England, Northern Ireland) was able—and continues to—display a considerable difference in NQF types within the same nation state. On the other hand a core purpose of a regional framework is that of enabling NQFs and national qualifications systems to align with or ‘talk to’ each other.

The experience of member economies appears to endorse the ‘lessons’ listed earlier (Coles 2006, 2008; Raffe et al 2008; Young 2005, 2008). These include the need to ensure that NQFs are built with stakeholder commitment; to see them reflect national education and training system characteristics and to be cautious of the costs of very elaborate NQFs.

It does seem that an APQF could be developed drawing on the EQF while still building stakeholder commitment, with moderate or evolutionary reform of existing education and training structures and with moderate costs.

The main driver of the EQF is the ETF. It and its sister agency CEDEFOP (the European Centre for Vocational Education Research) have build a substantial store of research and knowledge of NQFs and their development. The Foundation appears to be willing to support the dissemination of this knowledge and the facilitation of NQF development across the globe.

Recommendations:

Recommendation 1. Economies that have developed NQFs should be asked to identify key lessons from their experiences.

- Seven APEC economies have frameworks and another six are in process of developing or implementing them. These economies could be asked by EDNET to use this report as a means of identifying the key lessons for the further development and usefulness of their NQFs and the relation of their NQF to that in other economies.

Recommendation 2. EDNET should use the report and the lessons provided by economies with NQFs to facilitate ongoing dialogue between member economies and other Asia-Pacific economies on national qualifications frameworks.

- EDNET could extend the dialogue on the differences between the economies in their NQFs, or in their intentions towards them, and the advantages to be gained from understanding these differences and/or modifying their frameworks.
- The dialogue on NQFs should be closely linked with other work in the region on quality assurance and the recognitions of qualifications to ensure coherence and avoid duplication of research and development.

Recommendation 3. A proposal for a voluntary regional framework should be developed and disseminated amongst member economies for comment.

- The framework should be a set of qualifications level descriptors and/or domain based descriptors.
- If possible it should be aligned to core features of the European Qualifications Framework (EQF)
- The European Training Foundation (ETF) could be approached by EDNET for advice and support in investigating the development of the voluntary regional framework drawing on the core features of the EQF.
- An early assessment should be made of the costs of advice and support from the ETF and the costs of developments within the Asia-Pacific Region
- In support of this recommendation APEC could consider the complementary proposal in DEEWR (2008) for the establishment, in economies that do not presently have them, of National Information Centres on qualifications and course structures to provide information to potential users in other economies.

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Appendix 1. Frameworks in seven APEC economies

Australia

All education and training and qualifications, or just some sectors	All qualifications that are nationally recognised are included. The Australian Qualifications Framework (AQF) is a system of national qualifications for post-compulsory education in Australia, and includes schools, vocational education and training (Technical and Further Education colleges, Adult and Community providers and private providers) and the higher education sector (mainly universities).
A number of <i>levels</i>	There are implicitly 11 overlapping levels across senior secondary (1), Vocational Education and Training (8) and Higher Education (7) Level is not specified in the framework.
<i>Level descriptors</i> for units of learning or descriptors of broad qualification levels	Descriptors for broad qualifications. The AQF Guidelines (descriptors) contain the main criteria for defining qualifications based on the general characteristics of education and training at each qualification level. These characteristics are expressed principally as learning outcomes. The guidelines provide common ground for qualifications across the sectors. Differences in approach between the sectors are, in the main, related to the area of authority for learning outcomes, and these are reflected in the guidelines.
Level descriptors, defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	No explicit taxonomy though the descriptors cover such matters as knowledge, skill, performance and responsibility
Measures of the volume of learning	Only for higher education
<i>Formulae</i> for volume and level for qualifications	No
<i>Register and public information system</i> on qualifications, pathways and providers	The AQF Register has six sub-categories <ul style="list-style-type: none"> ▪ Government Accreditation Authorities (all sectors) ▪ Australian Universities ▪ Other Higher Education Institutions which are authorised by governments to accredit their own courses ▪ Non Self-Accrediting Higher Education Institutions and their AQF-approved qualifications ▪ Registered Training Organisations and their AQF-approved qualifications (VET sector) ▪ Overseas higher education institutions approved to operate in Australia, their local agents (where relevant) and the international qualifications they are approved to deliver Sectoral registers provide further information.
Occupational <i>competency standards</i> , or other measures of learning outcomes	Not for schools or higher education. For VET the main way this has been done is in Training Packages which are nationally recognised VET programs developed by Industry Skills Councils. They contain three core components: <ul style="list-style-type: none"> ▪ national industry competency standards ▪ assessment guidelines and ▪ the requirements for national qualifications under the AQF Qualifications for other forms of vocational education and training not covered by the Training Packages can be accredited under national guidelines by state authorities.
<i>Recognition Tools</i>	Australia has an obligation under the Lisbon Convention to ‘promote the use of the UNESCO/Council of Europe Diploma Supplement or any other comparable document’ (Article IX.3). In 2008 the Australian Higher Education Graduation Statement was introduced to be implemented over 5 years. There is nothing comparable for VET qualifications although there is national recognition of VET AQF qualifications within Australia
<i>Credit framework</i> to estimate the level and volume of learning	No, though in the state of Victoria the Registration and Qualifications Authority has developed a unit based credit framework to enhance the operation of the AQF in Victoria. It is based on 8 level taxonomy (plus an enabling level) of knowledge and skills, application and degree of independence. Volume of learning time is estimated: 1 point = 10 hours of average designed learning time. Development of a national system is foreshadowed by the Australian Qualifications Framework Council.
<i>Regulatory quality assurance functions</i> by the national NQF agency, or distributed to other institutions	Australian Qualifications Framework Council oversees the AQF but the quality assurance functions are distributed among the separate sectors of higher education, vocational education and training and schools. In higher education National Protocols for Higher Education Approval Processes were agreed by National and State governments in 2000 to ensure consistent criteria and standards across Australia. State universities are audited by the Australian Universities Quality Agency (AUQA). Non university higher education providers are audited by state authorities. VET providers are audited by state authorities operating under

	<p>national guidelines in the Australian Quality Training Framework which cover the accreditation of qualifications under the AQF and the registration and audit of providers to deliver and award the qualifications.</p> <p>There is national recognition of both qualifications and providers so that any qualification issued by a registered VET or higher education provider should be recognised throughout the country.</p> <p>Each state and territory determines its own policies and practices on organisation of senior secondary schooling, curriculum, course accreditation, student assessment and certification. An Australian Curriculum, Assessment and Reporting Authority was established in 2008 to work with the states to develop and administer a national school curriculum, including content of the curriculum, achievement standards, national assessments and reporting on student assessment data.</p>
Links to other frameworks including regional frameworks	None but being explored by the AQF Council
Legal control, or voluntary involvement	Legal with state and national legislation
Development and control by a national NQF agency, or development managed by stakeholders	Managed by Australian Qualifications Framework Council from 2008, but previously by an advisory board

Hong Kong SAR China

All education and training and qualifications, or just some sectors	The Hong Kong Qualifications Framework (HKQF) set up in 2004 covers academic, vocational and continuing education
A number of levels	7 levels with 7 the highest
Level descriptors for units of learning or descriptors of qualification levels	Descriptors for units in vocational education based on Standard Competency Specifications (SCS), developed by Industry Training Advisory Committees (ITACs) in stages. Competency specifications are grouped together to form a qualification at a particular level.
Level descriptors defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	4 elements: <ul style="list-style-type: none"> ▪ Knowledge and Intellectual Skills; ▪ Processes; ▪ Application, Autonomy and Accountability; and ▪ Communications, IT and Numeracy.
Measures of the <i>volume</i> of learning	1 credit = 10 notional learning hours
<i>Formulae</i> for volume and level for qualifications	Yes, eg Diploma at level 3 to level 7 \geq 120 HKQF credits
Register and public information system on qualifications, pathways and providers	The Hong Kong Council for Academic Accreditation and Vocational Qualifications (HKCAAVQ) set up in 2007 maintains the Qualifications Register (QR)
Occupational <i>competency standards</i> , or other measures of learning <i>outcomes</i>	Yes for vocational education developed by ITACs
<i>Recognition Tools</i>	No information
<i>Credit framework</i> to estimate the level and volume of learning	Not at present but a commonly accepted credit framework is being developed under HKQF
<i>Regulatory quality assurance functions</i> by the national NQF agency, or distributed to other institutions	<p>The HKCAAVQ is the accreditation authority and qualifications register authority under the HKQF. It</p> <ul style="list-style-type: none"> ▪ Provides advice to Government on the academic standards of degree programs ▪ Carries out academic accreditation of institutions and validation of programs ▪ Reviews general academic standards ▪ Evaluates an institution's ability to administer self-quality assured programs ▪ Carries out periodic reviews of self-quality assured programs ▪ Advises the Government and non-government organisations on academic accreditation and academic standards matters ▪ Provides information on academic standards of degree programmes and the promotion of academic accreditation methods and practices ▪ Conducts/commissions research into academic standards. <p>The publicly funded self accrediting universities have quality assurance activities.</p>
Links to other frameworks including regional frameworks	No
Legal control, or voluntary	Legal

involvement	
Development and control by a <i>national NQF agency</i> , or development managed by stakeholders	National agency

Malaysia

All education and training and qualifications, or just some sectors	Malaysian Qualifications Framework (MQF) covers the Skills Sector, VET sectors, Higher Education and Lifelong learning.
A number of <i>levels</i>	8 levels: 5 for the Skills Sector and the VET sectors (Certificates 1-3) Diploma, Advanced Diploma; 6 levels for Higher Education, with the three lowest overlapping with the Skills and VET sectors. For Lifelong Learning accreditation of prior experience and learning (APEL) is being developed for formal, informal and non-formal education at higher education institutions, workplaces, voluntary work or self-learning.
<i>Level descriptors</i> for units of learning or descriptors of qualification levels	Descriptors of qualifications: the MQF is an interconnected structure that has set nationally-agreed criteria and benchmarking for naming, positioning and linking all qualifications. It is based on competency standards or learning outcomes in 3 categories: levels of qualification, fields of study, and program
Level descriptors defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	Implicitly 5 outcomes: <ul style="list-style-type: none"> ▪ Depth, complexity and comprehension of knowledge ▪ Application of knowledge and skills ▪ Degree of autonomy and creativity in decision making ▪ Communication skills ▪ Breadth and sophistication of practices
Measures of the <i>volume</i> of learning	Yes, Credit value based on volume of learning or academic load, 1 credit = 40 hours Academic load includes all the learning activities the student undertakes to achieve a defined set of learning outcomes, such as lectures, tutorials, practical activities, retrieval of information, research, field work, and sitting for examinations.
<i>Formulae</i> for volume and level for qualifications	Yes, eg bachelor degree 120 credits, certificate 60 credits
<i>Register and public information system</i> on qualifications, pathways and providers	Malaysia has a register and public information on qualifications and providers details are at http://www.lan.gov.my/mqr/index.htm
Occupational <i>competency standards</i> , or other measures of learning outcomes	Competency standards for skills and VET sectors, learning outcomes for Higher Education
<i>Recognition Tools</i>	No
<i>Credit framework</i> to estimate the level and volume of learning	No
<i>Regulatory quality assurance functions</i> by the national NQF agency, or distributed to other institutions	The Malaysian Qualifications Agency (MQA) is responsible for: <ul style="list-style-type: none"> ▪ Developing standards and criteria as national references for the conferral of awards ▪ Quality assuring higher education institutions and programs ▪ Accrediting courses ▪ Facilitating the recognition and articulation of qualifications ▪ Maintaining the Malaysian Qualifications Register Well established institutions can apply for self accrediting status The Quality Assurance Unit for Polytechnics and Community Colleges in the Ministry of Higher Education is responsible for quality assurance in those institutions
<i>Links</i> to other frameworks including regional frameworks	No
Legal control, or voluntary involvement	Legal with state and national legislation
Development and control by a <i>national NQF agency</i> , or development managed by stakeholders	MQA implements and supervises the MQF

New Zealand

All education and training and qualifications, or just some sectors	New Zealand has an NQF for the whole education sector.
A number of <i>levels</i>	10 levels with levels 1 to 7 for certificates, levels 5 to 7 for diplomas and levels 7 to 10 for bachelor degree and higher.
<i>Level descriptors</i> for units of learning or descriptors of broad qualification levels	There are level descriptors for units.
Level descriptors, defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	A taxonomy of process, learning demand and responsibility for levels 1 to 7 and a knowledge and skills statement for levels 8 to 10; mainly based on learning outcomes
Measures of the volume of learning	Volume of learning is measured in credits, reflecting the time a typical learner takes to cover the learning, 1 credit = 10 hours of learning.
<i>Formulae</i> for volume and level for qualifications	A formula for the credits required at specified levels for the senior secondary certificate, diplomas, bachelors and honours degrees and for postgraduate degrees. This outcome of the formulae determines the level of a certificate or diploma.
<i>Register and public information system</i> on qualifications, pathways and providers	The New Zealand Register of Quality Assured Qualifications includes all national qualifications making up the National Qualifications Framework, listed on KiwiQuals. These are specified in a common outcome based format. The Register also includes other national quality assured qualifications and all quality assured qualifications developed by education and training providers.
Occupational <i>competency standards</i> , or other measures of learning outcomes	Occupational competency standards or learning outcomes are specified in a common outcome based format.
<i>Recognition Tools</i>	New Zealand has an obligation under the Lisbon Convention to 'promote the use of the Diploma Supplement or any other comparable document' NZQA has released a discussion paper seeking feedback on whether it is desirable to provide New Zealand graduates with the additional information the Diploma Supplement records to ensure ongoing international recognition of New Zealand qualifications.
<i>Credit framework</i> to estimate the level and volume in various qualifications and informal learning, to assist in transfers within the system, in employment selection and to support qualification design	The New Zealand Qualifications Framework has a 10 level taxonomy and system of credits 1 credit = 10 hours of learning and therefore includes a credit framework.
<i>Regulatory quality assurance functions</i> carried out by the national NQF agency, or distributed to other institutions	All accredited providers can award qualifications on the National Qualifications Framework (NQF) qualifications. The New Zealand Qualifications Authority (NZQA) administers the NQF and also deals with the registration; accreditation, quality assurance of programs of VET programs; the New Zealand Vice Chancellors Committee is responsible for quality assurance within the university sector.
<i>Links</i> to other frameworks including regional frameworks	No
Legal control, or voluntary involvement	Legal
Development and control by a <i>national NQF agency</i> , or development managed by stakeholders	NZQA has to: <ul style="list-style-type: none"> ▪ register and monitor all national qualifications on the National Qualifications Framework (NQF) ▪ administer the national senior secondary school examinations ▪ register and monitor all private providers of education and training to ensure they meet quality standards ▪ accredit industry training organisations to register workplace assessors ▪ provide a qualification recognition service to people holding overseas qualifications who want to live, work or study in New Zealand

Philippines

All education and training and qualifications, or just some sectors	Philippines National Qualifications Framework (PNQF) is in three parts—basic education, technical-vocational education and higher education—within the PNQF which was adopted in 2006. The PNQF evolved from the Philippine TVET (Technical Vocational Education and Training) Qualifications Framework. The Department of Education (DepED), Technical Education and Skills Development Authority (TESDA) and Commission for Higher Education Development (CHED) jointly approved in principle the Philippine National Qualifications Framework (PNQF).
A number of <i>levels</i>	Implicit levels in separate sectors
<i>Level descriptors</i> for units of learning or descriptors of qualification levels	For units and qualifications eg Certificate III, Descriptor: An individual who attains the Certificate III qualification is able to: <ul style="list-style-type: none"> ▪ Perform a wide range of skilled operations at a high level of competence involving known routines and procedures in a work context that involves some complexity in the extent and choice of options available; ▪ Perform work involving understanding of the work process, contributing to problem-solving, and making decisions to determine the process, equipment and materials to be used; ▪ Perform assignments involving individual responsibility and/or some responsibility for others and participation in teams including group or team coordination.
Level descriptors defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	For TVET the taxonomy is: process, responsibility and application
Measures of the <i>volume</i> of learning	For TVET the volume or amount of learning in a qualification is indicated by the number and content of the units of competency in the qualification.
<i>Formulae</i> for volume and level for qualifications	No
<i>Register and public information system</i> on qualifications, pathways and providers	A register in each sector
Occupational <i>competency standards</i> , or other measures of learning outcomes	In TVET
<i>Recognition Tools</i>	No
<i>Credit framework</i> to estimate the level and volume of learning	There is not a process based on computation of volume but the ‘ladderization’ arrangement of qualifications including forms of credit transfer, embedded courses and articulation, allows for credit in the move to higher qualifications.
<i>Regulatory quality assurance functions</i> by the national NQF agency, or distributed to other institutions	Basic education, details not provided TESDA manage all post-secondary technical and vocational education. It has introduced a unified registration and accreditation system. Accreditation is based on programs, so some institutions will have accredited and non-accredited programs. CHED manages higher education standards by: Accreditation of programs in institutions and certification through the Federation of Accrediting Agencies of the Philippines (FAAP); Recognition of institutions at different levels. These indicate an institution’s level of freedom from regulation by CHED Program or degree course accreditation is the basis for classifying institutions as chartered or non-chartered. Chartered institutions are autonomous or deregulated. They design their own programs and award degrees. Non chartered institutions must apply to the commission for program accreditation or a Special Order to award certificates, diplomas or degrees. Programs that are not authorised by the Commission are not recognised for assessment purposes. As part of quality assurance the Commission has identified around 300 Centres of Excellence and Centres of Development in various disciplines in public and private institutions throughout the Philippines. These Centres are recognised as providing high quality instruction, research and community involvement, and are provided with additional funding for a range of activities. Graduates of professional programs must pass the Professional Regulation Commission licensure examinations before being allowed to practice. These exams are run by the 43 Professional Regulatory Boards which operate subject to the approval of the Professional Regulation Commission.

<i>Links to other frameworks including regional frameworks</i>	The PNQF was to enhance and build on the international recognition of Philippine qualifications but is not linked to other frameworks
<i>Legal control, or voluntary involvement</i>	Legal under instruction from the President
<i>Development and control by a national NQF agency, or development managed by stakeholders</i>	Managed by TESDA and the Federation of Accrediting Agencies (FAAP) and the Commission on Higher Education (CHED).

Singapore

<i>All education and training and qualifications, or just some sectors</i>	Singapore Workforce Skills Qualifications (WSQ) system, only for VET sector
<i>A number of levels</i>	7 levels
<i>Level descriptors for units of learning or descriptors of qualification levels</i>	Descriptors for both units and qualifications
<i>Level descriptors defined against a taxonomy of learning outcomes or by learning inputs</i>	Complexity at each WSQ qualifications level is determined by <ul style="list-style-type: none"> ▪ The kind of knowledge and skills involved ▪ The kinds of issues or problems that the knowledge and skills are applied to ▪ The amount of accountability, independence, self organisation or organisation of others that is required to solve problems or complete tasks ▪ The occupational levels and range and depth of the knowledge and skills required of the jobs which the qualifications relates to.
<i>Measures of the volume of learning</i>	The credits of a competency unit are an indication of the relative magnitude of the learning effort expressed as Recommended Training and Assessment Hours (RTAH). 1 = 10 RTAH Credit value placed on all qualifications, e.g. Certificate =10, Diploma =20.
<i>Formulae for volume and level for qualifications</i>	For the WSQ: <ul style="list-style-type: none"> ▪ Minimum 80% of the total credit value must be at the stated qualification level ▪ Maximum of 20% of the total credit value may be collected in competency units that are one or two levels above the qualification level, or one level below the qualification level.
<i>Register and public information system on qualifications, pathways and providers</i>	Register
<i>Occupational competency standards, or other measures of learning outcomes</i>	Competency standards
<i>Recognition Tools</i>	No
<i>Credit framework to estimate the level and volume of learning</i>	Levels and credits are assigned to units in a qualification.
<i>Regulatory quality assurance functions by the national NQF agency, or distributed to other institutions</i>	Qualifications are issued by the Singapore Workforce Development Agency (WDA), certifying that all training and assessment requirements for the qualifications have been satisfied and accredited under the WSQ. Quality assurance is based on 2 key strategies: <ol style="list-style-type: none"> 1. Pre-delivery approval ensures that the course approved meets the competency requirements of WSQ and includes appropriate delivery modes and resources. It also ensures that the course is to be delivered by a reliable training organisation using suitably qualified trainers. Training providers need to meet the required accreditation criteria, comprising: <ul style="list-style-type: none"> ▪ Course Criteria – which is the organisation's ability to design and develop curriculum, deliver instruction and/or carry out assessment according to the WSQ competency requirements. ▪ Organisational Criteria - includes the practices the organisation adopts to ensure quality and professionalism in delivery of services 2. Post-delivery monitoring is carried out by WDA to monitor the effectiveness of the delivery of the course and employer satisfaction with the outcomes. This process will be built into the Approved Training Organisation's continual improvement cycle. This process is to be built into the Approved Training Organisation's continual improvement cycle

Links to other frameworks including regional frameworks	No
Legal control, or voluntary involvement	Legal
Development and control by a national NQF agency, or development managed by stakeholders	Control by the WDA

Thailand

All education and training and qualifications, or just some sectors	National qualifications framework for higher education only established by the Commission on Higher Education in 2003, though it is still in implementation. Other sectors have an interest in the framework. Work is being done on a qualifications framework for vocational education, using employment-related competencies for five industry groups.
A number of <i>levels</i>	6 levels
<i>Level descriptors</i> for units of learning or descriptors of qualification levels	Yes
Level descriptors defined against a taxonomy of learning <i>outcomes</i> or by learning <i>inputs</i>	Yes
Measures of the <i>volume</i> of learning	Yes
<i>Formulae</i> for volume and level for qualifications	Yes
<i>Register and public information system</i> on qualifications, pathways and providers	Yes
Occupational <i>competency standards</i> , or other measures of learning outcomes	Implementing an outcome based approach
<i>Recognition Tools</i>	Not yet
<i>Credit framework</i> to estimate the level and volume of learning	Yes
<i>Regulatory quality assurance functions</i> by the national NQF agency, or distributed to other institutions	Commission on Higher Education through the Bureau of Standards and Evaluation
Links to other frameworks including regional frameworks	Not yet, pending full implementation of their own framework
Legal control, or voluntary involvement	Legal under the Commission on Higher Education
Development and control by a national NQF agency, or development managed by stakeholders	Commission on Higher Education

Appendix 2. The survey

MONASH University



30 September 2008

Explanatory Statement

Mapping of Qualifications Frameworks across APEC Economies

Project HRD-04/2008

My name is Gerald Burke. I am Professor and Executive Director of the Centre for the Economics of Education and Training (CEET) at Monash University in Melbourne Australia.

CEET, in a consortium with the Centre for Postcompulsory Education and Lifelong Learning (CPELL) University of Melbourne and the Victorian Registration and Qualifications Authority (VRQA), has been contracted by Asia-Pacific Economic Cooperation (APEC) Secretariat to undertake research and analysis on *Mapping of Qualifications Frameworks across APEC Economies*.

This is an official APEC project, developed by the Australian Government, supported by other Education Ministers and funded by the APEC Secretariat.

The project is examining:

- Qualifications frameworks and associated Recognition Tools;
- The uses and benefits of qualifications frameworks;
- Implementation issues including policy constraints;
- The linkages between qualifications frameworks and qualifications recognition and quality assurance;
- Reviews undertaken in the APEC region in relation to qualifications frameworks or with a qualifications recognition component; and
- The feasibility of developing an Asia-Pacific Qualifications Framework having regard to possible models.

As part of this study a survey is to be undertaken of persons expert in the qualifications structures in each of the APEC economies. The attached questionnaire has been developed.

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For economies which have a National Qualifications Framework (NQF) the questions relate to:

- The factors that led to the introduction of the NQF
- The main benefits to be achieved through the establishment of the NQF
- The structure of the NQF

- The development of Recognition Tools
- Quality assurance
- Achievements and limitations of the framework
- International frameworks
- Possibility of an Asia-Pacific Qualifications Framework
- Other comments or suggestions about qualifications issues your economy or this project

For economies without a NQF the questions relate to:

- The qualifications system in the economy
- The development of Recognition Tools
- Quality assurance
- Consideration of a NQF
- Possibility of an Asia-Pacific Qualifications Framework
- Other comments or suggestions about qualifications issues in your economy or this project

Your name and address has been provided to us by the APEC Secretariat as the APEC EDNET coordinator in your economy, for forwarding the questionnaire to the qualification expert in your economy. When you forward the questionnaire to the selected qualification expert, would you please advise me accordingly.

Being in this study is completely voluntary. Your consent, and the consent of the qualification expert in your economy, to participate in the project will be indicated by your informing us that you have forwarded the questionnaire to the qualification expert, and he/she returning the completed questionnaire to us. An early indication of the likelihood of your expert participating would be appreciated. You and the expert may withdraw at any stage. We do not intend to ask any personal or intrusive questions, but if you feel any questions are of this nature you may avoid answering them. You may also refuse to provide confidential or privileged information. You may choose to answer none, some, or all of the questions.

Could you ask your designated expert to indicate willingness to participate in the study by: October 10 by emailing gerald.burke@education.monash.edu.au.

The completed *Questionnaire* will need to be sent to me by: November 3 2008

The completed *Questionnaire* will be available only to the researchers and will be securely stored according to Monash University regulations in a locked cabinet and/or password-protected computer. They will be destroyed after five years. Any confidential documents provided will also be securely stored.

When the project is completed, a draft report will be submitted by CEET to the APEC Secretariat. No individual participant will be identified in the report. Your name will be included in the list of persons who contributed to the study only with your written consent after you have seen the draft report.

If you would like further information about any aspect of the project please contact me by email: Gerald.Burke@education.monash.edu.au or telephone: + 61 3 9905 2808 or fax + 61 3 9905 9184.

If you have a complaint concerning the manner in which this research < CF08/2653 - 2008001365 > is being conducted, please contact:

Human Ethics Officer

Standing Committee on Ethics in Research Involving Humans (SCERH)

Building 3d

Research Office

Monash University VIC 3800 Australia

Tel: +61 3 9905 2052 Fax: +61 3 9905 1420 Email: scerh@adm.monash.edu.au

Thank you.

Gerald Burke

Economy Questionnaire
**Mapping of Qualifications Frameworks across APEC
Economies (HRD-04/2008)**

This consultancy has been commissioned by Asia-Pacific Economic Cooperation (APEC). It is concerned with:

- Qualifications frameworks and associated recognition tools in APEC economies;
- The uses and benefits of qualifications frameworks;
- Implementation issues including policy constraints;
- The linkages between qualifications frameworks and qualifications recognition and quality assurance;
- Reviews undertaken in the APEC region in relation to qualifications frameworks or with a qualifications recognition component; and
- The feasibility of developing an Asia-Pacific Qualifications Framework having regard to possible models.

The consultancy is being undertaken by a consortium in Australia of the Centre for the Economics of Education and Training (CEET) Monash University, the Centre for Postcompulsory Education and Lifelong Learning (CPELL) University of Melbourne and the Victorian Registration and Qualifications Authority (VRQA).

The consultants have approached the task first by collating publicly available information on qualifications frameworks, and reviewing any recent activities undertaken in the region with a qualifications frameworks or recognition component.

A questionnaire has been developed to gather and facilitate access to information about qualifications frameworks and tools for increasing transparency and reliability. Prior to considering this some key terms are defined. This is provided in Box 1.

NOTE:

Questions 1 to 9 are to be answered for economies where there is a National Qualifications Framework (NQF).

Questions 10 to 15 are to be answered for economies where there is no National Qualifications Framework.

**The completed Questionnaire should be emailed to
Gerald.burke@education.monash.edu.au**

Postal address Professor Gerald Burke, CEET Faculty of Education,
Monash University, Victoria 3800, Australia

Phone +613 9905 2865

Fax +613 9905 9184

Box 1 Definitions/Glossary

For the purpose of this questionnaire the following definitions have been used

Qualification⁴ is a formal certificate issued by an official agency, in recognition that an individual has been assessed as achieving learning outcomes or competencies to the standard specified for the qualification title, usually a type of certificate, diploma or degree. Learning and assessment for a qualification can take place through workplace experience and/or a program of study. A qualification confers official recognition of value in the labour market and in further education and training.

Qualifications system¹ includes all aspects of a country's activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. One feature of a qualifications system may be an explicit framework of qualifications.

National qualifications framework¹ (NQF) is an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of level descriptors. The scope of frameworks may be comprehensive of all learning achievement and pathways or may be confined to a particular sector, for example initial education, adult education and training or an occupational area. Some frameworks may have more design elements and a tighter structure than others; some may have a legal basis whereas others represent a consensus of views of social partners.

A Recognition Tool is a means of improving the information conveyed in a certificate or diploma. One form of tool is the Diploma Supplement. E.g. from the University of Nottingham: 'This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the Supplement is to provide sufficient independent data to improve the international "transparency" and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.)'.

Levels typically refer to either the complexity of learning in any qualification and/or the progression routes that learners take.

Descriptors may be descriptors of qualifications types or of units of learning within qualifications.

Taxonomies are used within NQFs to describe the type of learning outcomes achieved at each level. Examples are complexity of knowledge, degree of application and level of autonomy.

Credit framework typically is a set of taxonomy based descriptors of the volume of learning and the level of learning. It is designed to enable and support the development of courses and qualifications, compare and align qualifications and therefore enable stronger links between qualifications, including credit based links.

Technical and vocational education and training (TVET)⁵ refers to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

Sectors refers to the main subgroups within education e.g. schools, TVET and higher education (universities).

⁴ OECD 2005, *Bridges to the Future: The role of qualification systems in promoting lifelong learning*, Paris.

⁵ UNESCO and ILO, 2002, *TVET for the 21st Century*, Paris and Geneva.

Questionnaire: for APEC economies with a NQF

ECONOMY NAME:

1. The factors that led to the introduction of the NQF

a) Who or which agencies initiated the establishment of the NQF and when?	
b) Could you briefly describe how and why the NQF was established?	
c) Was the NQF established by legislation?	
d) What was the particular role of any central qualifications agency in developing the NQF?	
e) What was the role of each of the following organisations and groups in developing the NQF?	
i. The central or state government and minister	
ii. Department of Education	
iii. Department of Labour (and industry)	
iv. Industry/employer bodies	
v. Unions/professional bodies	
vi. Universities and other higher education institutions	
vii. TVET institutions	
viii. Other (please specify)	

2. The main benefits aimed to be achieved through the establishment of the NQF

(Please tick the appropriate box)

	very important	important	a little important	not important
<i>Benefits to students and workers</i>				
a) Simplification of complex qualifications arrangements for different sectors				
b) Identify and build clear links between qualification levels and across sectors (i.e. higher education, TVET and school) to support, progression and facilitate lifelong learning				
c) Support the recognition of prior learning and informal learning, and credit transfer				
d) Support the portability of qualifications				
e) Support the mobility of workers				
f) Support the mobility of students				
g) Other benefits (please specify)				
<i>Benefits to employers</i>				
h) Promote trust in qualifications and the qualifications system				

i) Enable qualifications to be aligned with industry skills/competencies				
j) Promote the consistent recognition of the same qualification throughout the economy				
k) Enhance mobility of labour throughout the economy				
l) Enable the national qualifications system to be more flexible and responsive to industry needs				
m) Other benefits (please specify)				
<i>Benefits to education and training institutions</i>				
n) Promote national qualifications to students and workers				
o) Make it easier to design new qualifications				
p) Make it easier to link qualifications				
q) Other benefits (please specify)				
<i>Benefits to education and training sector authorities</i>				
r) Make it easier to benchmark qualifications and occupational standards and establish credit				
s) Make it easier to conduct quality assurance of qualifications				
t) Make it easier to design new qualifications				
u) Other benefits (please specify)				
<i>International benefits</i>				
v) Promote student mobility internationally				
w) Promote worker mobility internationally				
x) Make it easier to align with regional qualification frameworks				
y) Make it easier to align with other economies' national qualification frameworks				
z) To facilitate the delivery, design and provision of off-shore education and training programmes				
aa) Provide for the recognition and quality assurance of non-local qualifications				
bb) Promote international recognition and trust in your economy's qualifications				
cc) Other benefits (please specify)				

3. The structure of the NQF

Does the NQF include:	Yes	No	Provide details
a) a single framework for all education and training sectors			
b) a framework for some sectors only			
c) descriptors of qualifications			

d) guidance on naming qualifications			
e) descriptors for units within qualifications			
f) descriptors based on taxonomies			
g) whether qualifications are meant to signify achievement in a broad area, something more than a collection of units			
h) levels of complexity/difficulty of qualification and if so the number of levels			
i) the volume or amount of learning in a qualification and how measured			
j) the volume or amount of learning in a unit and how measured			
k) a formula for determining if units completed meet requirements for particular qualifications			
l) the recognition of prior learning and credit transfer between qualifications and sectors			
m) a credit framework for evaluating the quantity and complexity of a qualification			

4. The development of Recognition Tools

a) Has your economy developed Recognition Tools for increasing the transparency and reliability of information about qualifications? If so what are they?	
b) Are these linked to the NQF?	

5. Quality assurance

a) What is the process for including a qualification under the NQF?	
b) Which bodies are responsible for qualification recognition/accreditation?	
c) Which bodies award qualifications?	
d) What other forms of quality assurance are there to show that awarding bodies/providers of education and training are meeting the standards for a qualification?	
e) Does the body responsible for the NQF have a major role in quality assurance or are other bodies responsible?	
f) Is there a national register of qualifications? If so, does the body responsible for the NQF have a major role in administering and maintaining the register?	
g) Are qualifications under the NQF recognised as equivalent throughout your economy?	

6. Achievements and limitations of the framework

a) Have there been major policy constraints in developing the NQF?	
b) Are there any significant problems with the NQF?	
c) What have been some of the most difficult challenges in	

developing and implementing the NQF?	
d) Is there broad support for the NQF across the education and training sectors and amongst employers, unions and other stakeholders? Give details	
e) Is there any evidence of the achievements of the NQF at this stage?	
f) What are the main limitations or weaknesses of the NQF?	
g) Will it be possible to address those limitations or weaknesses?	
h) Are there any likely changes or additions to the NQF in the near future? If so please give details?	
i) Has the NQF been formally evaluated or monitored and if so can you give details?	
j) Are most qualifications included under the NQF? Can you estimate a proportion?	

7. International frameworks

a) Is the NQF linked to any other qualifications framework?	
b) Is the NQF used as a means of assessing and recognising qualifications from other economies?	
c) Have your economy examined any international developments in NQFs? If so:	
i. Has the European Qualifications Framework (EQF) influenced your NQF and if so in what ways?	
ii. Has your NQF been influenced by any particular NQFs in the Asia and Pacific region? If so, which NQFs and why?	
iii. What does your economy regard as some of the most important aspects of international developments in NQFs?	

8. Possible Asia-Pacific Qualifications Framework

a) Would you support the development of an Asia-Pacific Qualifications Framework?	
b) If so what would be the main purpose and benefits?	
c) What should be the key features of an Asia-Pacific Qualifications Framework?	
d) What would be the barriers or obstacles to the development of an Asia-Pacific Qualifications Framework in your economy?	
e) Can you identify implementation issues for your economy if an Asia-Pacific Qualifications Framework is proposed?	

9. Have you any other comments or suggestions about qualifications issues in your economy or this project?

Please include a copy of the NQF and other relevant documents that are available.

Questionnaire: for APEC economies without a NQF
 ECONOMY NAME

10. The qualifications system in your economy

a) What bodies are responsible for the awards of qualifications?	
b) Is there an economy-wide hierarchy of levels of qualifications, if so how are they described and reported?	
c) Are qualifications recognised throughout the economy?	

11. The development of Recognition Tools

a) Has your economy developed Recognition Tools for increasing the transparency and reliability of information about qualifications?	
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12. Quality assurance

a) What process if any is there to register qualifications?	
b) Are there any government bodies including sectoral agencies responsible for quality assurance of qualifications?	
c) If so, how are these qualifications registered or recognised?	
d) What other forms of quality assurance are there to ensure that providers of education and training and awarding bodies are meeting the standards for the delivery of a course leading to a qualification?	

13. Consideration of a national qualifications framework

a) What degree of support is there for an NQF in your economy?	
b) Which groups or government bodies support the idea of an NQF?	
c) What are the perceived benefits and/or costs of an NQF?	
d) What barriers or obstacles are there to the introduction of an NQF?	
e) Are there any plans or documents relating to a possible NQF?	

14. Possible Asia-Pacific Qualifications Framework

a) Would you support the development of an Asia-Pacific Qualifications Framework?	
b) If so what would be the main purpose and benefits?	
c) What should be the key features of an Asia-Pacific Qualifications Framework?	
d) What would be the barriers or obstacles to the development of an Asia-Pacific Qualifications Framework in your economy?	
e) Can you identify implementation issues for your economy if an Asia-Pacific Qualifications Framework is proposed?	

15. Have you any other comments or suggestions about qualifications issues in your economy or this project?

Please include copies of any relevant documents that are available

Appendix 3. Terms of Reference



Australian Government

Department of Education, Employment and Workplace Relations

Terms of Reference

CONTRACTOR FOR SERVICE – MAPPING OF QUALIFICATIONS FRAMEWORK SYSTEMS ACROSS APEC ECONOMIES

Purpose of contractor for service

The Department of Education, Employment and Workplace Relations (DEEWR) will recommend APEC engage a contractor for the delivery of services that will raise awareness in the APEC Human Resources Development Working Group (HRDWG) of formal and informal qualifications frameworks systems, associated descriptors and quality assurance frameworks and recognition agencies across APEC economies.

Background – Mapping of Qualifications Framework Systems Across APEC Economies

The 21 member economies of the Asia-Pacific Economic Cooperation (APEC) forum are: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong SAR, Indonesia, Japan, the Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Chinese Taipei, Thailand, United States, and Vietnam.

Australia advances its international education interests and raises Australia's profile in the region through the Education Network, one of the three networks of the HRDWG.

In April 2007, Australia successfully hosted the 29th meeting of the HRDWG and at that meeting secured endorsement for the project: *Mapping of Qualification Frameworks across APEC Economies*. The project directly responds to the APEC priority area of *Governance and Systemic Reform in Education* as identified at the third APEC Education Ministers Meeting in 2004. This project directly responds to the priority through its aim of facilitating increased transparency and reliability of information about formal and informal qualifications frameworks, associated descriptors and quality assurance frameworks, and recognition agencies across APEC economies.

To date, there has been no comprehensive survey of formal and informal qualifications frameworks, associated descriptors and quality assurance frameworks, and recognition agencies across APEC economies. This project will review existing or planned surveys that may be expected to compliment the project. It will take into account any surveys conducted or planned by multilateral organisations, including the International Labor Organisation, the Asia-Pacific Recognition Network (APARNET), and the Brisbane Communiqué Senior Officials Working Group which has collected data on several individual economies in the region.

Findings from the project may be presented by the researcher to APEC education officials early in 2009.

Services to be provided by contractor

DEEWR will seek to engage a contractor (possibly an academic) with demonstrated capability and knowledge of qualifications frameworks and education systems of the APEC region, for service to:

- Conduct research and analysis of the education systems in the APEC region in terms of:
 - Publicly available information on qualifications frameworks;
 - Reviews undertaken in the APEC region with a qualifications recognition component;
- Develop an electronic questionnaire survey to gather and facilitate access to information about qualifications frameworks and tools for increasing transparency and reliability of information about higher education systems within APEC member economies
- Identify an appropriate survey respondent in each APEC economy
- Produce a completed report detailing the formal and informal qualifications frameworks, associated descriptors and quality assurance frameworks, recognition tools, and recognition agencies in the APEC region.

Proposed work schedule

DEEWR to engage a contractor	January/February 2008
Contractor to provide draft report to DEEWR (DEEWR to provide comments/feedback within 7 working days)	May 2008
Contractor to provide final report to DEEWR	September 2008

**This work schedule is indicative - it may need to be amended in consultation with the contractor.*

Roles of contractors and DEEWR

The contractor will be responsible for:

- liaising with and reporting to the DEEWR project officer at regular intervals; and
- provision of draft and final reports to DEEWR at agreed dates.

DEEWR will be responsible for:

- providing advice on the project and on APEC initiatives; and
- overall management of the project, including payment schedules.

All work is to proceed in consultation with DEEWR. DEEWR retains final editorial control and ownership of intellectual property.

Selection - contractor for service

Selection for the provision of services listed above is to among parties approached by DEEWR on a Request for Quote (RFQ) basis. Those parties will be academics or professionals with capability and knowledge of qualifications frameworks and education systems of the APEC region.

Selection for the provision of services listed above is among parties approached by DEEWR on a Request for Proposals (RFP) basis, circulated in January 2008 to at least three potential bidders and allowing at least three weeks for proposals to be submitted. The RFP will be prepared in consultation with the APEC Secretariat Director (Program). The successful tenderer will be required to enter into a contract with the APEC Secretariat. The approved project cost of USD51,000 funded by APEC. This incorporates items to cover consultancy fees (600 hours at USD80) and consultancy secretarial fees (100 hours at USD20). The project will adhere to normal APEC financial rules and general principles for the financial management of the APEC funds (accountability, value and openness).

RFPs will be distributed to qualified parties in January 2008.

Project Officer

Alexandra O'Connor, International Cooperation and Recognition Branch, International Education Group
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