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The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries

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Foreword

This is the report of an international research project conducted by the Skills and Employability Department of the ILO on the implementation of National Qualifications Frameworks (NQFs) and their use and impact. The research aimed to produce empirical evidence and analysis of countries' experiences as a basis for advising countries on whether, and if so, then how, to introduce a qualifications framework as part of a strategy to achieve their wider skills development and employment goals.

A qualifications framework is intended to improve understanding of qualifications (degrees, certificates, or recognition of experiential-based learning and capabilities) in terms of the information they convey to an employer about prospective workers' competencies. Frameworks are also intended to explain how qualifications relate to each other and thus can be combined to build pathways within education systems.

The focus on NQFs is important because some 100 countries are now involved in some way in designing or implementing qualification frameworks. Whether the emphasis is on increasing the relevance and flexibility of education and training programmes, easing recognition of prior learning, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, or developing quality assurance systems, governments are increasingly turning to qualifications frameworks as a policy tool for reform. In some cases national developments are propelled by the emergence of regional frameworks (such as the European Qualification Framework). In some cases the implementation of NQFs has been widely supported by international organizations and is often linked to aid money and even loans.

Despite the growing international interest, there is very little empirical research about the actual design process, implementation and results of NQFs in the labour market. This international comparative analysis of the implementation and impact of qualifications frameworks takes an important step towards filling this gap.

The research goes beyond sharing information about various approaches to NQFs taken by countries. Rather, it examines the evidence of their results to date and the extent to which stakeholders have confidence or questions about their eventual effectiveness.

For example, this study sought to discover to what extent employers are using qualifications frameworks in their hiring decisions. To what extent are national qualification authorities monitoring whether the qualifications they develop are being awarded and what difference these qualifications make to workers in the job market? And amongst those who are responsible for designing and implementing national skills systems, is there confidence that qualifications frameworks are helping to make the most of investments in education and training, or is there concern that these efforts are crowding out investments in extending accessibility of good training, improving teacher training and working conditions, or developing labour market information systems and employment services?

At its core, the research asks discomforting questions, such as whether NQFs are sometimes being relied on to provide a technical solution to complex social objectives (better matching skills provision and demand, better accountability of training providers, better involvement of employers and workers in training systems, etc.); or whether some countries are developing NQFs based on the rhetoric surrounding them rather than on the evidence of their effectiveness.

The fundamental objective of policy advice is to help constituents avoid "borrowing" policies from elsewhere, and to help them inform their own policy choices based on consideration of a good menu of options, capacity to assess needs, and understanding of the

potential costs, risks, and benefits of different approaches and policies. The ILO Skills and Employability Department is continually asked by constituents to provide advice in adapting and applying the principles and practices included in the *ILO Recommendation concerning Human Resources Development: Education, Training and Lifelong Learning, 2004 (R-195)* to their specific needs and objectives.

Thus empirical research on NQFs, as on policy issues, looks at what works under which circumstances, with what efforts by which stakeholders over what period of time, and with what complementary or related policies, institutions, and capabilities. The research design rightly focuses on countries' experience with NQFs at the decision and design stage as well as at the implementation stage in order to identify the source of problems and the elements of success. The Skills and Employability Department will take full account of this research in developing policy advice for member States, employers' and workers' associations, in designing further research, and in working with other international agencies.

The research report was presented to an international experts meeting held at the ILO on 13-14 May, 2010. Representatives of international organizations and bilateral agencies, and independent researchers discussed the findings and analysis and compared them with their own research and experience. Different strategies for achieving some of the goals of NQFs were also explored.

As a Research Associate in the Skills and Employability Department, Dr. Stephanie Allais (now postdoctoral fellow at the University of Edinburgh) led the development of the research, oversaw the country studies, and wrote this final report. Professor Michael Young (Emeritus Professor at the Institute of Education, University of London) has served as senior research advisor. Professor David Raffe (Professor of Sociology of Education, University of Edinburgh) has also acted as an advisor to the project.

The research programme has been carried out in cooperation with the European Training Foundation (ETF), where the research was led by Borhene Chakroun and Arjen Deij. The ETF is advising and assisting more than 20 countries around Europe on the reform of their qualifications systems, in particular in the wider context of reforming technical vocational education and training (TVET). However, this report is a result of the author's analysis of the case studies and does not necessarily reflect the views of the European Training Foundation or the European Union.

All good research inevitably leads to further research questions, especially when, as is almost always the case, it is undertaken with limited financial resources and under a deadline. This is certainly true for this study. It does not pretend to be exhaustive or to offer conclusive findings on all questions. It does, however, contribute fresh empirical evidence that should inform policy debate at country and international levels. I would like to thank Dr. Allais for her leadership and timely completion of this study. I am grateful to Michael Young and David Raffe, and to Ron Tuck, for supporting this project through their experience and insights. I appreciate the partnership with the ETF throughout the development and implementation of the project, including their preparation of three of the country studies. Along with the ETF, I would like to acknowledge our gratitude to all those who prepared the country case studies and to the practitioners and stakeholders who made time to respond to their questions and share their insights. Finally, I would add my thanks to colleagues who helped organize country studies and provided comments on the research methodology and early drafts, including Akiko Sakamoto, Olga Strietska-Ilina, Ashwani Aggarwal, Fernando Vargas, and Michael Axmann.

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Abbreviations and acronyms

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BNVQF	Botswana National Vocational Qualifications Framework
BOCCIM	Botswana Confederation of Commerce, Industry and Manpower
BTEB	Bangladesh Technical Education Board
CARICOM	Caribbean Community
Cedefop	European Centre for the Development of Vocational Training
CONOCER	National Council for Standardization and Certification of Labour Competence (in Mexico)
EQF	European Qualifications Framework
ETF	European Training Foundation
GNI PPP	gross national income purchasing power parity
GTZ	German Technical Cooperation
HDI	Human Development Index
ILO	International Labour Organization
INTES	Turkish Construction Industry Employers' Union
IVTB	Industrial and Vocational Training Board
NQFs	National Qualifications Frameworks
NTVQF	National Technical and Vocational Qualifications Framework
NVQs	National Vocational Qualifications
NVQF	National Vocational Qualifications Framework
OECD	Organization for Economic Cooperation and Development
PMETyC	Technical Education and Training Modernization Project (in Mexico)
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SCQF	Scottish Credit and Qualifications Framework
SENCE	National Service for Training and Employment
SQA	Scottish Qualifications Authority
TVET	technical vocational education and training
UAPMETyC	Administrative Unit of the Technical Education and Training Modernization Project (in Mexico)

List of researchers

Listed alphabetically by case study, the following individuals carried out the research and wrote the case study reports:

Australia: Dr Leesa Wheelahan, Senior Lecturer in Adult and Vocational Education at Griffiths University

Bangladesh: Dr Ahmadullah Mia, Professor and Dean, Faculty of Social Sciences, University of Development Alternative, Dhaka

Botswana: Dr Daniel Tau and Dr Stanslaus T. Modesto, independent researcher

Chile: Ana María Cabrera, independent researcher

English NVQs: Professor Michael Young, Emeritus Professor at the Institute of Education, University of London

Lithuania: Dr Vidmantas Tūtlys, Dr Tomas Jovaiša, Dr Odeta Gurskienė, and Ms Irma Spūdytė, Vytautas Magnus University Centre for Vocational Education and Research

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Scotland: Professor David Raffe, Professor of Sociology of Education, University of Edinburgh

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Turkey*: Safir Sumer, independent researcher

* Case studies commissioned and overseen by the European Training Foundation.

A note on some terms used in this report

A difficulty involved in research on qualifications frameworks is the terminology involved. One aspect of this is that the area tends to be dominated by jargon which can become complex and opaque to outsiders, thus making people less likely to want to or be able to contribute to the debates. Another is that many different policy interventions seem to go by the same name, and conversely, different terms are used for what seem to be similar interventions. In addition, qualifications frameworks themselves are introduced to try to change the way qualifications are used, with implications for how the word 'qualification' is used and understood. Further, the terms 'qualification', 'qualifications framework', and 'national qualifications frameworks' are used in a variety of ways across countries. This report does not attempt to start from one set of definitions of qualifications frameworks. As discussed further in Chapter 3, the focus was on examining how the countries in the study understand national qualifications frameworks. The report recognizes and tries to respect variation of uses across countries, stakeholders, and researchers. Nonetheless, it may be useful upfront to briefly discuss some terms used in this report.

'**Qualifications'** is obviously a key term in this report. The word 'qualification' is used in different ways in the case studies and the literature. The first, and more traditional way in which the word 'qualification' is used, relates to formal means of signifying that someone has completed a prescribed process linked to an education or training programme offered in an educational or training institution. In some countries the term 'qualification' means something close to a 'competence' for a given occupational practice. Qualifications have also been linked to official statements that an individual has been accepted to practice in a certain area (such as, a lawyer, plumber, or teacher). Whereas until about 30 years ago, the term 'qualification' was usually restricted to trades, crafts, and professions and did not apply to school certificates or university degrees or diplomas, **degrees, diplomas, and certificates** are now all seen as *types* of qualifications. Qualifications in this light are all formal '**awards**' which signify that the bearer has some knowledge or competencies, or that they have successfully completed some learning programme.

A different type of usage of the word 'qualification' is where it is used, as occurs in some of the case studies for this research, as synonymous with (or short-hand for) education programmes. Reformers of qualifications systems over the past 30 years, including the advocates of qualifications frameworks, have suggested the need to sever the link between the institutions in which individuals obtain education and training and the qualifications obtained. This perhaps has led to a new and also third different way in which the word 'qualifications' is used, in reference to (or short-hand for) the sets of formal requirements for achieving a qualification. This usage is common in official policy documents relating to qualifications frameworks, and occurs in the current case studies. In this usage, the 'qualification' is the statement of learning outcomes and associated requirements for awards. Thus, policy documents or individuals interviewed in the process of this research refer to the 'design of qualifications', or the 'number of qualifications that have been created'. The 'creation' of a qualification here refers to the official development of a set of requirements for the awarding of the qualification in practice.

What is **competency-based training**? Is it the same as **competency-based education**; is it the same as **outcomes-based learning**, or **outcomes-based education**? What is the relationship between competencies, competence, outcomes, and qualifications frameworks? Gonczi and Arguelles (2000, p. 9) define competency-based education as "education based on learning outcomes and predetermined standards". Vargas (2005) sees the implementation of competency-based training in Latin America as a necessary precursor to the introduction of qualifications frameworks. This may be because qualifications frameworks are described as focused on the outcomes of qualifications and not what are seen as 'inputs', such as curriculum, or the processes of learning. Guthrie (2009) suggests that **competency-based training** includes training which is based on competency

standards, is outcomes and not input or process focussed, industry involved/led, flexibly delivered, involving self-paced approaches where appropriate, performance-oriented, assessed using criterion referenced rather than norm-referenced assessment, and allows for the recognition of prior learning. Much of this is similar to Jessup's (1991) notion of **outcomes**. However, other authors suggest that there are considerable differences in meaning of the term '**learning outcomes**' in different countries and contexts, as well as the term '**competence**' (for example, Cedefop, 2008; Bohlinger, 2007; Brockmann, Clarke and Winch, 2008). This partly reflects the ambiguity between different languages and partly that terms like outcomes always have to be understood in terms of the national traditions in which they are located. One definition of 'outcomes' might include what another calls 'competencies', while others distinguish even between 'competencies', 'competences', and 'competency'. There are other terms introduced into the discussions on these areas, such as 'generic' or 'key' 'competencies', as well as 'capabilities'. In many cases, authors (or policy makers) seem to attempt to use a different term to distance themselves from an approach with which they disagree or which is seen to have failed.

Associated with qualifications frameworks, competency-based training, and outcomes-based learning are terms such as '**competency standards**', '**occupational standards**', '**achievement standards**' and '**unit standards**'. The ILO's Regional Model Competency Standards (ILO, 2006), which were developed to assist countries in the Asia/Pacific region to develop **industry-based competency standards**, suggests that these are different from **occupational standards**. This is because, "one industry may use skills from many occupations and, conversely, occupations can cross a number of different industries" (ibid, p. 7). The report uses the words 'outcomes' and 'competencies' interchangeably to describe the Model, and suggests that the standards in the Regional Model of Competency Standards are focused on "what is expected of an employee in the workplace rather than on a learning process or time spent in training or education." (ibid, p. 4). In some of the case study reports, it appears that countries have moved from one term to another to signal a policy shift or hoped for shift. As will be seen in the report, involvement of industry (employers but sometimes also trade unions) is a key issue in many of the countries, and sometimes new terms seem to be adopted for approaches that are intended to improve industry involvement. The term '**unit standards'** is sometimes used in the same way, but sometimes in a broader way, as any statements of learning outcomes which can be individually awarded, but which can be accumulated towards a qualification.

Accreditation is a term that occurs frequently in this report. At the broadest level it refers to the process of granting official, legal, or governmental authority to an organization, public or private, to provide a service—in this context, to offer a learning programme, conduct assessment, or issue a qualification. The term has different force and implications in different countries.

Two other terms which recurred in the research, and which are found in the report, are 'register of qualifications' and 'sub-framework'. In this research, '**register of qualifications**' mainly refers to a list of all the qualifications that are officially accepted, authorized, or supported within a particular country or region. In this report, the term '**sub-framework**' refers to a qualifications framework in a particular sector of the education and training system or in an occupational or industrial sector, which together with other 'sub-frameworks', forms part of a broader NQF. However, it should also be pointed out that in some countries in the study, the *national* qualifications framework is sectoral (i.e. only for technical vocational education and training), and therefore may be the same as a sub-framework in another country.

Chapter 1 Introduction and summary

1.1 Introduction

Raising skills levels, reforming education and training systems, and improving qualifications systems are among the policy priorities of most countries around the world. A particular concern for many countries is improving the relationships between education and training systems on the one hand, and labour markets on the other. Increasingly, qualifications frameworks have been seen as a useful policy tool to achieve these and other goals. The last five years have seen a dramatic increase in the number of countries adopting NQFs, with over 100 countries now implementing, or developing, or considering NQFs, or involved in regional qualifications frameworks. The implementation of qualifications frameworks has also been widely endorsed by influential international organizations and bilateral agencies, and is often supported by aid money and even loans.

But there is little research evidence about the impacts, strengths, and weaknesses of NQFs, particularly for developing countries. There is also little researched information about circumstances, starting points, different policy goals, and different approaches when decisions are made whether to *adapt* rather than *adopt* existing models. Publications currently available about qualifications frameworks include suggestions about what qualifications frameworks are supposed to achieve, but often give little information about the problems which have occurred with their implementation, or evidence of actual measured achievements. In other words, **countries are investing considerable resources in a policy mechanism which is largely untested and under-researched.**

It is in this context that the Skills and Employability Department of the ILO designed this research, hoping to answer the questions:

> To what extent are qualifications frameworks a way of achieving the various desired policy objectives associated with them?
>
> What models of qualifications frameworks and which implementation strategies and approaches (including broader policy agendas and institutional arrangements) are most appropriate in which contexts, in order to achieve the various desired policy objectives associated with qualifications frameworks?

In asking these questions and examining them through actual country experience, this report is an important new contribution to an under-researched but increasingly important policy area. It presents findings from a cross-country empirical study, and provides insight into the development of qualifications frameworks in 16 countries around the world. As discussed in the following chapters, the research revealed far more about the former question than the latter.

The research reviewed existing research on the English National Vocational Qualifications (NVQs) and the early reforms leading to the Scottish Credit and Qualifications Framework, as well as the other three ‘early starter’ qualifications frameworks (Australia, New Zealand, and South Africa) in five case studies based on existing research and documentation. A further 11 case studies were based on new fieldwork. Chile and Mexico were researched as these countries started work on the development of Labour Competence Frameworks in the late 1990s, even though they do not yet have NQFs *per se.* Botswana, Malaysia, and Mauritius can be described as ‘second

generation' NQFs. Bangladesh, Lithuania, Russia, Sri Lanka, Tunisia, and Turkey, and have more recently started developing qualifications frameworks, with Russia being the most recent. The study also involved a review of available literature, a critical analysis of the different roles of qualifications in educational reform, and the development of a proposed typology of qualifications frameworks.[1]

1.2 Summary of key findings[2]

Qualifications frameworks seem to capture and represent many hopes and dreams. This research does not have straightforward, simple recommendations or definitive conclusions about what they can or cannot achieve. This is partly because the claims made for them are extremely broad, and it is virtually impossible to obtain evidence (at least in the short-term) that specific changes are causally related to the introduction of an NQF. Perhaps the two central messages which must be emphasized is that there is no single right model of NQFs, and that NQFs do not provide quick-fix or simple solutions to the complex problems facing countries in relation to education, skills development, and employment.

Expectations that qualifications frameworks can achieve the ambitious policy objectives claimed for them in relatively limited time periods seem to be ill-founded. This research found little evidence that NQFs are achieving their goals. In many instances this was because NQFs are a recent intervention, and it may be simply too early to tell. Nonetheless, the absence of clearly available evidence of successes, particularly for the older frameworks, is an important finding for a policy that has been so widely accepted internationally. Some specific evidence of qualifications frameworks having failed to achieve their goals was found. Considerable evidence of difficulties associated with implementing qualifications frameworks was also found. The framework which emerges from this study as the most successful, the Scottish Credit and Qualifications Framework, had relatively limited ambitions and may also be the most difficult to replicate, because of the very long-term incremental policy reform process of which it was a part, and the relatively strong educational institutions in Scotland.

The research found little evidence that NQFs have substantially improved communication between education and training systems and labour markets. In Scotland, there is some indication of the framework being used by a national career guidance service. Case studies were not able to find evidence demonstrating that employers found qualifications easier to use than they had been prior to the introduction of an NQF, nor were other data found to demonstrate that qualifications frameworks have improved the match of supply and demand between education and training institutions and the labour market. Representatives of qualifications authorities, government agencies, and industry bodies interviewed, did not have concrete evidence, evaluations, research that there had been achievements in this regard, and neither did publically available information from these organizations contain such evidence.

With regard to articulation amongst educational providers there is greater evidence of success, although there are also suggestions that qualifications frameworks have in fact

[1] A short note on qualifications frameworks in Germany was also prepared. In Latin America, a third country study (on Colombia) was initiated but not completed.

[2] This summary is of the *findings* only, and not of the entire report; it does not include any information about the methodology used or the limitations of the research, which are discussed in Chapter 2.

reduced learner mobility in some countries. There is some evidence of increased numbers of certificates which recognize existing skills, knowledge, and abilities of workers and potential workers being awarded, although this is on a small scale in most of the countries in the study.

In a number of the countries with longer experience of NQFs, a common problem seemed to be that many new qualifications (the word is used here in the sense of formal specifications to obtain a qualification) had been designed and registered on the frameworks but not used.

Similar reasons for introducing NQFs

Despite dramatic differences in the contexts and histories of the countries in this study, similar reasons were provided for the introduction of NQFs. In the countries examined, stakeholders and policy makers in general supported NQFs, seeing them as vehicles to improve communication of existing qualifications systems; increase transparency of qualifications; improve relationships between education and training and labour markets; support learners to move between sectors as well as enter or re-enter education and training; enable the recognition of prior learning; improve quality as part of quality assurance systems, as well as by involving industry in the setting of standards or learning outcomes; increase the flexibility of provision of education and training; and increase the status of qualifications from technical vocational education and training and workplace-based training. There are differences of emphasis between countries which aimed to improve how their qualifications system is used and understood, and countries which were more focused on achieving transparency for individual qualifications. Another difference was the extent to which an NQF was seen as a way of organizing existing qualifications, or as a system for developing new qualifications. There were also differences with regard to the level of expectation placed on the framework.

Policy borrowing

Policy borrowing emerged as a strong reason why NQFs are being introduced, as well as playing a significant role in how they are being developed. Many countries appear to be influenced more by the claims made about NQFs in other countries than by their proven track records, without considering differences in contexts, and without understanding all aspects of how the framework was developed and implemented. The English NVQs in particular were mentioned in many of the country studies as having played an influential role in the adoption of NQFs or competence frameworks. Donor and development agencies seem to play influential roles, in some cases with regard to decisions to adopt a framework as well as which model to adopt, and in others with financial support.

Uses of learning outcomes

The main mechanism to create transparency in most of the countries is the specification of learning outcomes or competency statements, as well as broader outcomes in level descriptors. Official sets of levels have been created in all the countries, and level descriptors in most of them. While there are considerable expectations about what level descriptors can achieve, the study found little specific evidence from any of the countries that they are useful in making decisions about the location of qualifications on the framework, or about credit transfer, with the exception of Scotland, where they are described as assisting professional judgements. In many cases the implementation of outcomes or competency based approaches seems to necessitate very elaborate and detailed rules and specifications, which may account for why so many qualifications and competency-standards were developed but not used.

Nearly all case studies suggest that the lack of employer involvement in the existing systems is a key reason why qualifications do not meet their needs, and many cite lack of

willingness of employers to participate in education and training systems as a reason for introducing NQFs. Many of the countries in the study had attempted to implement competency-based training prior to the introduction of a qualifications framework, often with considerable donor support. Except for one instance where the NQF was described as being created on the basis of a previously successful competency-based training reform, in most instances it was hoped that an NQF would solve the problems that previous reforms had not solved. However, in many cases the approach seems to be similar to that of previous reforms.

Implementation success factors and problems

The research suggests that what is key, in particular for developing countries, is the need for serious consideration of policy priorities as well as the sequencing of policies. Countries that have been most successful have been those which have treated the development of frameworks as complementary to improving institutional capability rather than as a substitute for it or as a way of re-shaping institutions, and have seen outcomes of qualifications and programmes leading to them as intimately related rather than separable. Successful use of learning outcomes seems also to be based in strong professional associations and strong educational education institutions. The relatively successful Scottish framework has been led by educational institutions and awarding bodies, and while it uses learning outcomes, it has a flexible approach to how they are created and used, and is described as using them in relation to 'inputs'. Sectoral approaches for specific industries seemed more viable than attempting to create one system for all education and training and for all industries.

In many instances, how educational institutions and systems are governed and managed is affected by NQFs, and in turn, existing governance structures at times conflict with NQFs. There were instances of strong support from governments, instances where governments appeared to not be in the driving seat, and instances where different government bodies were at odds with each other. There were instances of support from certain bodies representing employers and/or industry, as well as instances of lack of employer involvement or belief in this type of approach. There were instances where trade unions had strong aspirations for what qualifications frameworks could do for their members and workers in general, and instances where trade unions were not involved, or were disillusioned with qualifications frameworks. Many education and training institutions in the countries in the study seemed to have reservations about qualifications frameworks, although instances of support were found.

The importance of social dialogue, and the involvement of a range of different stakeholders, is emphasized in the study. However, the study suggests some difficulties. One is the involvement of industry, as mentioned above. The weakness of trade unions in many countries was a particular concern. If employees' interests are going to be addressed in NQFs or other education and training policies, clearly there needs to be more public concern for building and supporting the involvement of trade unions. The role of education and training institutions was also a point of concern in the study, as in many instances they appear to be dissatisfied with NQFs and related reforms. The experiences from the various countries in the study also suggest that far more thought needs to go into considering what roles different stakeholders can and should play, in what types of structures, and in which processes. The study suggests that the increasingly influential role of qualifications authorities themselves in the design and implementation of NQFs, and in broader education and training policies is an important future focus for research.

1.3 Structure of the report

The details of the **methodology** of the study are provided in **Chapter 2**. **Chapter 3** provides a **brief overview of the existing literature and documentation**. **Chapter 4**

provides a **short summary of the case studies**, organized roughly chronologically according to when countries started developing their qualifications frameworks. **Chapter 5** discusses the **key drivers** behind the introduction of qualifications frameworks. **Chapter 6** provides information and analysis of how NQFs have been **designed** in the different countries. **Chapter 7** provides information and analysis of how NQFs have been **implemented** and how they are being **used** in the different countries. Looking at how countries are implementing and using NQFs was a key focus of the research, as in many cases development is still at an early stage, and it is far too early to evaluate impact. **Chapter 8** then considers what evidence there is on the **impact of NQFs,** and their successes and failures. This draws in particular on the experience of employers, trainers, and workers in using qualifications frameworks. Finally, **Chapter 9** provides some **reflections** on the overall findings of the research, some analysis of the findings, and proposes a framework for the analysis of qualifications frameworks.

Chapter 2: Methodology

The study examined differences within and between countries and types of qualifications frameworks. It involved a mapping of global qualification reforms based on existing research, websites and official documents, communication with officials where possible, and information from donor organizations and development agencies. The study also undertook a critical analysis of the different roles of qualifications frameworks in educational reforms, and developed a proposed typology of qualifications frameworks. An ILO Working Paper has been produced to share the initial theoretical ideas developed through the project (Allais, Raffe, and Young, 2009), and is available at www.ilo.org/skills.

The focus of the research then consisted of the production and analysis of 16 case studies, which are discussed in more depth below.

2.1 The case studies

Selection of countries

The research examined qualifications frameworks in the following countries and regions:

Africa

The Republic of Botswana (henceforth, Botswana)

The Republic of Mauritius (henceforth, Mauritius)

The Republic of South Africa (henceforth, South Africa)

The Tunisian Republic (henceforth, Tunisia)

Americas

The Republic of Chile (henceforth, Chile)

The United Mexican States (henceforth, Mexico)

Asia and Pacific

The Commonwealth of Australia (henceforth, Australia)

The Democratic Socialist Republic of Sri Lanka (henceforth, Sri Lanka)

Malaysia

New Zealand

The People's Republic of Bangladesh (henceforth, Bangladesh)

Europe

England, Northern Ireland, and Wales: the National Vocational Qualifications (NVQs)

Scotland

The Republic of Lithuania (henceforth, Lithuania)

The Russian Federation (henceforth, Russia)

The Republic of Turkey (henceforth, Turkey)

The selection of cases was based on an attempt to balance a range of criteria. Firstly, countries were chosen to ensure inclusion of four regions: Africa, the Americas, Asia and the Pacific, and Europe. Within regions, cases had to meet the criterion of there being at least some progress in terms of implementing an NQF, so that there would be something of substance to research. There was also an intention to include countries which were outside the Anglophone tradition which has dominated a lot of NQF literature. The selected countries also represent a wide spread of levels of economic development, and a range of differences in terms of geographical and population size, and so on. The study also deliberately included two countries which have not yet started developing NQFs, but which have many years experience in developing frameworks of occupational competencies, Chile and Mexico. This decision was taken because the frameworks of occupational competencies in these countries have much in common with NQFs in other countries, and sharing lessons from Latin American countries was seen as important; Vargas (2005) argues that the competency-based training systems in many of these countries can be seen as part of the long-term development of NQFs.

A specific mention should be made of the case study on the English National Vocational Qualifications (NVQs), which did not include other developments with regard to qualifications frameworks in England, Northern Ireland, and Wales. This is because the NVQs were the first national attempt to base vocational qualifications on the idea of competences or outcomes, and, although they have been criticized and changed in various ways, they have been very influential.

Practical considerations also affected the selection of countries—primarily, locating appropriate researchers in a very short time frame. Individual researchers were expected to have a minimum of three years professional experience at the national level in education or skills development research or policy implementation, demonstrated ability to undertake research and excellent analysis and writing ability, proven ability to be constructively critical and objective, knowledge of local policy environment, and ability to secure meetings with key role players. One of the more challenging criteria was to identify researchers who were knowledgeable about skills development systems in those countries but had not been directly involved in the development or implementation of NQFs and thus were more easily able to take an objective view.

Two additional countries were selected: Colombia and Germany. Unfortunately, reasons beyond our control led to these case studies not being completed. This was a disappointing gap. However, with regard to the former, the Inter-American Centre for Knowledge Development in Vocational Training, ILO/Cinterfor, has recently compiled information about qualifications frameworks in Latin America and the Caribbean. With regard to the latter, Germany's widely respected 'dual training' system of technical vocational education and training and successful economic record make it a very interesting and important addition to the countries involved in developing qualifications frameworks, albeit a very recent one. It is hoped that future research will be able to include these and other countries.

The frameworks in the study include a range of differences with regard to scope:

- Five cases in the study (Australia, Mauritius, New Zealand, Scotland, and South Africa) have attempted or are attempting to implement comprehensive NQFs. They all include an outcomes-based sub-framework (in other words, a framework for one sector of the education and training system) for skills/workplace learning certificates, and in one case for all vocational education.
- Five cases in the study (Bangladesh, Botswana, the English NVQs, Sri Lanka, and Tunisia) have frameworks which were designed only for technical vocational education and training. Sometimes this includes workplace training. In Turkey, the NQF officially

includes all vocational and technical education at primary, secondary, and tertiary levels, but excludes all professional qualifications.

- Three of the frameworks in the study (Lithuania, Malaysia, and Russia) are described as comprehensive but exclude school qualifications. One of these includes a sub-framework of outcomes-based skills standards for the skills/workplace learning sector only.
- Two countries in the study (Chile and Mexico) had attempted to implement frameworks of occupational standards for workplace learning. Some attempts were made to apply these frameworks to the technical vocational education and training sector.
- The study did not examine any frameworks which were only for higher education.

Data collection and analysis

The research was carried out through case studies on each of the 16 qualifications frameworks. Five case studies on the early starter qualifications frameworks (Australia, the English NVQs, New Zealand, Scotland, and South Africa) were conducted on the basis of existing research and documentation only. No field work was conducted. As qualifications frameworks in these countries have been under implementation for some time, there is a broad existing body of research, literature, evaluations, policy analysis, and official documentation, on the basis of which the case studies were produced. Researchers were asked to summarize the debates about what has and has not been achieved by qualification frameworks in their respective countries and why. They were also asked to comment on what they saw as the lessons that might be learned from the experience of introducing a qualification framework for countries at very different stages of political and economic development. These five case studies have been published in an ILO working paper (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009), which is available at www.ilo.org/skills).

The case studies in the remaining 11 countries were conducted through two stages of field work. For the first stage the focus was on a description and analysis of the qualifications framework and on the existing system of qualifications that it is designed to reform. For the second stage, the focus was on implementation, use, and impact of the qualifications framework.

Researchers were asked to provide an analytical description of why a qualifications framework was decided upon, how the qualification framework in question has been/is being designed, the progress that has been made, and the problems that have arisen. Researchers were asked to focus on the main design features of the qualifications framework, the ways in which it is intended to achieve its objectives, and how it will overcome weaknesses of the existing qualification system. They were asked to comment on the likelihood of their respective framework achieving its goals and what changes might be needed. Researchers were asked to learn from employers, training providers, workers, government agencies the extent of their use of the qualifications frameworks and the extent to which they felt it was serving their needs. Exploring the extent of the use of the qualifications framework was a necessary first step to exploring how well they were achieving some or any of their broader goals. If the framework in question was still in the initial stages of development, researchers were asked to attempt to understand the extent to which stakeholders feel that, given the design and implementation strategies, it is likely to be used and to succeed in achieving its objectives.

Researchers were provided with a draft template of headings to structure their reports. This was with a view to ensuring that the case studies were as comparable as possible. However, researchers were given autonomy to shape the research and structure the report according to the logic of the framework in question and broader history of education and training in their country.

For the first phase, researchers collected and summarized official documentation, including:

- Statements of how the qualifications framework is expected to work;
- Examples of actual qualifications and level descriptors (if they exist);
- Descriptions about the roles of different organizations/institutions;
- Evidence of impact, such as information on uptake of qualifications, results of evaluations or reviews, and so on, where such information is available.

Documents were collected from, as appropriate, the official agency responsible for the qualifications framework, ministries of education and labour, and international and donor organizations working in each country.

Researchers conducted interviews with some of the following individuals, depending on the specifics of the country in question:

- Officers from the qualifications authority;
- Leading government officials responsible for developing and implementing the qualifications framework (including members of ministries of education and labour if appropriate);
- Members of task teams responsible for developing the qualifications framework.

Guiding documents for interviews were supplied, but individual researchers developed schedules of interviews based on what was applicable in their countries. In many instances, researchers conducted a number of follow-up interviews to obtain additional information.

Researchers participated in an intensive workshop midway through the project to share the findings of the first phase of the research and discuss research methods with the senior advisers and ILO staff. The workshop included presentations and discussions of conceptual issues involved in researching qualifications frameworks, and a detailed analysis of the information which had been obtained from each country up to that point. The workshop developed focus areas for the second stage of the research, as appropriate for the stage of development of the qualifications frameworks in the various countries. It also provided assistance and support to researchers.

The second phase of the research included interviews with a wider range of stakeholders and important role players/users, with a focus on understanding the use, implementation, and impact of the qualifications framework (in some cases this may be only in the implementation stage), as well as further information on what those interviewed feel the framework will achieve. Interviewees included:

- Representatives of unions from leading industries as well as teacher unions;
- Employer representatives and representatives from leading industries;
- Education and training providers;
- Officials from bilateral or multilateral agencies providing assistance on qualifications frameworks, or consultants and officials from qualifications framework agencies in other countries providing assistance.

Researchers were in contact with the research team based at the ILO for feedback, guidance, and review during the process of conducting interviews as well as writing the case studies. This helped ensure that the case studies remained as comparable as possible, while allowing flexibility in the approaches taken by individual researchers according to the logic of the framework they were exploring and the stage of its development.

The individual case studies are available at www.ilo.org/skills.

Evaluation criteria and nature of the evidence

Analyzing qualifications frameworks is complicated—and many of the complexities emerge in the body of this report. Impact analysis of any policy is a highly contested and complex endeavour, and one which seldom enjoys the existence of a clear base line with regard to well developed indictors. Starting from the assumption that qualifications frameworks may differ substantially in different countries, with respect to aims, design, development, approach to implementation, and use, specific evaluation criteria were not developed. Instead, researchers were asked to focus on three main issues:

- What systems or approaches exist for monitoring or analyzing impact? How do the designers and managers of the framework expect to see and evaluate impact?
- Is there, in the view of designers and managers of the NQF, evidence of impact, and what is it?
- How do stakeholders view impact? What do/did they expect from the NQF, and did it meet/is it meeting/do they think it is likely to meet their expectations?

Researchers were provided with an indicative list of possible positive and negative outcomes, and possible indicators for them. For example, a positive outcome could have been increased numbers of people gaining qualifications (through institutional provision and through assessment of informal learning); increased progression of learners to higher levels; increased opportunities for credit accumulation and transfer; evidence of impact in labour markets (e.g. use by employers in recruitment, improved match between education and labour market, and any indicators that this would improve labour market performance, better links between qualification levels and wage/salary rates, emergence of new industries, reduction of gender differences); evidence of continuing involvement by stakeholders; evidence that qualifications had assisted migrants/returning migrants in accessing the labour market. Some possible negative outcomes included a proliferation of unused qualifications; bureaucratization of assessment (e.g. evidence of over-specification and 'box ticking' types of assessment); lack of trust in the new qualifications by employers or educational institutions; opportunity cost—valuable resources redirected into qualifications framework development at the expense of more important priorities such as building or improving educational institutions, upgrading teachers and lecturers, and so on. The emphasis, however, was on researchers finding out what was considered to be evidence of success and failure in their respective countries.

2.2 Limitations

As with all research, this project had considerable limitations, and as such does not make any comprehensive or definitive claims about its findings for qualifications frameworks in general.

Perhaps the project's most substantial limitation was time: the research was conducted and completed in less than a year, giving case study researchers and lead researchers severe time constraints. This inevitably limited the amount of information which could be collected, the amount of analysis which could be conducted, and the possibility of engaging with theoretical literature and available documentation on NQFs. Nonetheless, the short time period for the research had an advantage: it enabled the production of a research report which contains considerable empirical information and data about qualifications frameworks in an area suffering from a great dearth in this regard. It is hoped that future studies can build on the findings presented in this report to start to develop a far more complete picture and analysis.

Any comparative educational research is a limited, complex, and fraught endeavour. There are difficulties of terms used in different ways, as well as institutions, systems, and processes which are taken for granted inside a country and not made explicit, but may lead the same policy to be manifested very differently. As Noah and Eckstein (1998) point out, even if studies are 'merely' descriptive, a tremendous amount of effort has to be exerted simply to acquire systematic parallel data on different educational systems. Qualifications frameworks are particularly problematic as they are arguably the product of global comparisons and internationalization as much as they are an object of study within these areas.

Another limitation was that many of the qualifications frameworks were in the early stages of development. This is reflected in the findings, as more was learnt about design and implementation of qualifications frameworks than about impact. Researchers were asked to consider *use* of qualifications frameworks as far as possible, as an indicator of likely or possible future impacts.

A further limitation was that researchers in many instances tended to interview the experts who were involved in the design and implementation of the NQF, arguing that others did not know enough about the area to comment on it. This leads to what Fernie and Pilcher (2009) describe as a tendency when researching NQFs which is equivalent to ancient Babylonian geocentric physics—assuming that NQFs are at the centre of policies and practices of education systems. The difficulty is that NQFs are almost certainly the concerns of only a small group of people in any country; many will never have even heard of them years after they have been launched. Furthermore, researchers are likely to be biased towards their own country—even if they aim to be critical of it. In addition, researchers were only able to interview small numbers of representatives of employers' organizations, trade unions, and educational institutions. As such, the studies provide some perspectives, but cannot claim to be comprehensive.

Researchers were asked to try and go beyond the claims that are made for the qualifications framework in their country and to ask their informants how they think the new framework will achieve the claims made for them. For example, if a country put a priority on the recognition of informal learning, researchers were asked to find out how and by whom the assessment would be undertaken, who would award the certificates, how they would be linked to existing certificates, and what mechanisms were being put in place to ensure that they would be recognized by employers and educational providers. In most instances, researchers struggled to obtain this type of information, and tended to provide rhetorical statements and wish-lists. As Fernie and Pilcher (ibid) warn, a danger with this type of approach is that it does not give voice to potentially hidden conflict, tension, controversy, and confusion which were arguably present in the countries. This researcher's dilemma is in no way exclusive to research on NQFs; but researching NQFs certainly highlights it.

The hope then is not to present definitive findings or a 'how to' handbook, but to provide some empirical evidence and open up a debate about what NQFs are for, how far they are achieving their aims, and possible directions for alternatives.

Chapter 3: Introducing NQFs: A brief review of research and experience

This chapter starts with a consideration of how qualifications frameworks are defined. It provides an overview of the historical emergence and development of qualifications frameworks, as well as an indication of where qualifications frameworks are being developed around the world. It considers what countries aim to achieve through qualifications frameworks, according to policy documents and literature. It touches very briefly on a few of the conceptual and theoretical debates.

3.1 What are qualifications frameworks?

The starting point in attempting to discuss this question is to answer the question, 'what are qualifications'? Traditionally, qualifications have been seen as signifying that someone has gone through a prescribed process linked to an education or training programme offered in an educational institution or an institution accepted as a training institution. Qualifications have also been linked to official statements that an individual has been accepted to practice in a certain area (such as, as a lawyer, plumber, or teacher). Reformers of qualifications systems over the past 30 years, including the advocates of qualifications frameworks, have suggested the need to sever the link between the institutions in which individuals obtained education and training and the qualifications obtained. The Organization for Economic Cooperation and Development (OECD, 2007, pp.21-22) provides the following definition of 'qualification':

> A qualification is achieved when a competent body determines that an individual has learned knowledge, skills and/or wider competences to specified standards. The standard of learning is confirmed by means of an assessment process or the successful completion of a course of study. Learning and assessment for a qualification can take place during a programme of study and/or workplace experience. A qualification confers official recognition of value in the labour market and in further education and training. A qualification can be a legal entitlement to practice a trade.

In official policy documents relating to qualifications frameworks, the word 'qualification' is sometimes used to refer to the sets of formal requirements for awarding a qualification. In other words, the 'qualification' is the statement of learning outcomes and associated requirements for awards. Thus, policy documents or individuals interviewed in the process of this research refer to the 'design of qualifications', or 'how many qualifications have been created'. The 'creation' of a qualification here refers to the official development of a set of requirements for the awarding of the qualification in practice. This notion a 'qualification' seems to be that which is invoked in discussions of qualifications frameworks, and indeed, qualifications frameworks are often explicit attempts to improve the information available in the official documentation which comprises the requirements for the award of a qualification. Qualifications frameworks can then be seen as official ways of regulating and listing the available qualifications in a country/sector/region.

Most countries have historically had formal descriptions of their qualifications systems. Sometimes these have presented in diagrammatic form the main publicly recognized qualifications in the country and how they related to each other. These diagrams may look similar to diagrams of NQFs. Also, most countries have lists of occupations in different sectors of the economy, and in some these are linked to various types of classification and regulatory systems. A publication by the Commonwealth of Learning and South African Qualifications Authority (2008) distinguishes between 'old style frameworks', which are simple graphic representations of the main pathways between qualifications in a country, and 'new style frameworks' that take the form of NQFs. Coles (2007, p. 4) suggests that "NQFs are considered to add value by making explicit the levels

of qualifications thus reducing the scope for differences of interpretation." In other words, the key difference is seen as that NQFs contain specific descriptions of different levels, and qualifications are designated as occupying these levels. Here, the relationship between NQFs and outcomes becomes apparent: NQFs can be seen as attempts to provide broad levels of outcomes, to create levels, on which more specific sets of outcomes, contained in qualification documents, are located. However, not all policies which are described as NQFs operate in this manner. So, for example, the Australian Qualifications Framework has been comprised of a set of qualifications, with no specific descriptions of levels.

Ron Tuck (2007) argues that some countries have qualifications systems which have 'framework-like tendencies'. By this, he means that the links between qualifications are explicit. But, he argues (ibid, p. 4), that the first NQFs introduced had features that were not present in traditional qualification systems—i.e., they were *not* just a more explicit mapping of qualifications:

> The most important and distinctive characteristic of these NQFs is that the qualifications they contain are viewed as being independent of the institutions that offered the programmes leading to the qualifications. In simple terms this means that educational and training qualifications become 'national property' rather than being owned by the education and training institutions themselves.

So, Coles emphasizes the creation of agreed statements of levels as the key innovation contained in NQFs, while Tuck introduces the notion of qualifications are separated from the institutions which offer learning programmes. Tuck then defines NQFs as follows:

> A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. The Qualifications Framework indicates the comparability of different qualifications and how one can progress from one level to another, within and across occupations or industrial sectors (and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework).
> (Tuck, 2007, p. v)

He goes on to suggest that while traditionally in most countries the public has implicit understandings of the relationships between qualifications, a qualifications framework is usually understood to make these *implicit* national levels of qualification *explicit*. Tuck's definition is partially a statement of intention about what it is hoped an NQF will achieve. This appears to be the case with many definitions of NQFs. For example, the European Commission provides the following definition:

> "national qualifications framework" means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.
> (European Commission, 2008, p. 11)

A research report on qualifications frameworks in the Asia-Pacific Economic Cooperation (APEC) area makes suggestions about what qualifications frameworks can contribute:

> 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.
> (APEC Human Resources Development Working Group, 2009, p. 1)

The OECD suggests that:

> A qualifications framework 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 take in 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 have a tighter structure than others; some may have a legal basis whereas others represent a consensus 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 or internationally.**
> (OECD, 2007, p. 7, emphasis added)

These definitions are not empirically derived, but describe what people hope qualifications frameworks *should be* and *should do*. To make matters more complicated, although the terminology used in creating and describing qualifications frameworks is very similar in different countries—including terms such as 'learning outcomes', 'competence', 'standards', 'validation', and even, 'qualification'—in fact, these terms often refer to very different things.

Some researchers have therefore tried to understand NQFs through the development of typologies of different forms of NQF in terms of their purposes, structures and implementation strategies (for example, Raffe, 2003; Raffe, 2009c; Tuck, Hart, and Keevy, 2004; Young, 2005; Allais, 2007a). As Allais, Raffe, and Young (2009) suggest, the idea of a typology of NQFs is important conceptually as it enables researchers to explore the links between a general model of NQF structure and development and the case of their particular country. A typology is also important because it can enable policy-makers to move beyond what the American sociologist C. Wright Mills, described as "**personal troubles**" ("why is my country having so many difficulties in implementing its NQF?") and see such problems as 'public issues' that are common to all NQFs, and therefore explicable even if not immediately solvable. For example, politicians often expect policy-makers to introduce an NQF as an immediate change when all the international experience suggests that the reform of qualifications can only be done incrementally and when many other policies are also in place.

Another way of understanding NQFs is through comparing how they have been designed and implemented in different countries. Some have unfolded slowly as part of an overall reform processes, whereas others have been introduced in order to rapidly change existing systems. Some see educational institutions as the drivers and owners of the framework, while others see the framework as a way of reducing the influence of educational institutions over qualifications. Some introduce new organizations and systems, while others build on existing systems.

Given these complexities, this current study did not start from a specific notion of what a qualifications framework is. Instead, it aimed for a more empirical approach, which began by identifying what different countries describe as the introduction of a qualifications framework, and exploring what this means for the countries, and how it is being carried out.

As reforms linked to education and training programmes, qualifications frameworks are intended to affect curriculum and pedagogy. Understanding NQFs (and hopefully,

designing, developing, and implementing them) involves understanding theoretical and empirical research in these areas. Theories and debates in political economy and economics also have considerable bearing on qualifications frameworks, as they are designed to change the relationship between governments and education and training systems, as well as between education and training systems and labour markets. A few of the conceptual issues raised in the research literature are very briefly discussed at the end of this chapter.

3.2 What do governments intend to achieve through NQFs?

From a study of policy documents it appears as if NQFs are seen as a solution to many of the problems with education and training systems, based on similar diagnoses of problems. Countries or regions are described as being at a comparative disadvantage because of their weak education and training systems, and it seems to follow that a qualifications framework will assist in overcoming these weaknesses (for example Leney, 2009, p. 63). Qualifications frameworks are seen as a specific policy tool that will act as a major instrument for the reform and expansion of educational provision in ways that will raise skills levels, improve labour market productivity, and contribute to economic growth.

Policy documents and other documentation and reports[3] associated with NQFs suggest that they can achieve some or all of the following policy objectives:

- Make national qualifications systems easier to understand and overview by showing how different qualifications of a country relate to each other;
- Enable different types of qualifications to be compared through a common language of level;
- Avoid duplication and overlap of qualifications while making sure all learning needs are covered;
- Improve the transparency of qualifications and qualifications systems through the standardization of all qualifications and the use of explicit learning outcomes;
- Create parity of esteem for technical vocational education and training;
- Integrate education and training;
- Shift education systems from 'supply' to 'demand' driven;
- Increase the relevance (understood as alignment with the needs of the labour market) and flexibility of education and training programmes;
- Improve labour mobility, including:
    - Improving regional integration of economies by reducing barriers to worker mobility;

[3] For example, Bird (1998), Bjornavold and Coles (2007), Cedefop (2009a, 2009b), Coles (2006, 2007), Commonwealth of Learning and SAQA (2008), Donn and Davies (2003), ILO (2004), Isaacs (2001), Klapp (2003), Leney (2009), Lythe (2008), Moore (2009), Nkomo (2001), OECD (2007), SAQA (2000), Sellin (2007), World Bank (2002).

    - Improving the ability of workers from developing countries to find jobs commensurate with their training and experience in other countries, thus increasing remittances sent home;
    - Improving the ability of workplaces in developed countries to quickly understand the skills and abilities of migrant workers, thus more easily reducing labour shortages;
- Increase private sector involvement in education and training;
- Provide a reference for quality assurance, thus contributing to improving quality and accountability, and promoting public and professional confidence in the integrity and relevance of national qualifications;
- Create systems to recognize skills acquired through informal means;
- Create possibilities for credit accumulation and transfer—allowing credit towards degrees or certificates to be acquired over time, from different institutions, and by the accreditation of informal or experiential learning;
- Promote access to education and training, and motivate learners to enroll for further study, by certification of existing skills, thereby raising education levels and strengthening international competitiveness;
- Make it easier for learners to enter or re-enter education systems through more transparent certification, and promote lifelong learning by helping people to understand clear progression routes;
- Help learners make informed decisions on the learning programmes and associated qualifications they want to pursue, by comparing the levels of different qualifications and identifying clear progression routes to their chosen career.

These policy objectives will, it is believed, contribute to achieving two significant development goals:

- Social equity: education and training is a human right, but many people have been excluded from it, or not well served by current systems;
- Economic development: education and skills development are seen as major contributors to solving economic problems or, at the least, as something that governments have control over which could improve their economies, through, for example, attracting investment, increasing the quality and quantity of jobs, improving resilience to change in global markets.

These two policy goals are seen as linked: people who have been disadvantaged by current education systems are the ones seen as in most need of a reformed system which will recognize the skills that they already have, give them an incentive to learn, and provide them with flexible opportunities to acquire the kind of education that will equip them for the labour market, as well as enabling them to continue to learn, and continue to be productive as labour markets change. Thus, it is hoped, social justice and improved economic performance will both be achieved, productivity will increase, and prosperity will increase, creating a virtuous cycle. The key driving force behind the current research is a desire to understand to what extent, and in what conditions, qualifications frameworks can achieve any of these aims.

3.3 A brief overview of the development of NQFs

The origins of an outcomes-based approach to qualifications and curriculum has been traced to occupational psychology in the United States in the 1960s, where it was picked up in attempts to measure teacher competence, based on political pressures as school education came under public criticism (Young, 2009; Spreen, 2001). From there, the idea of

specifying learning outcomes was introduced into vocational education (Jessup, 1991) and emerged explicitly in the 16+ Action Plan in 1984 in Scotland, which laid the basis for a series of reforms that led to the launch of the Scottish Credit and Qualifications framework in 2001 (Raffe, 2003; Young, 2003). In the rest of the United Kingdom in late 1987, influenced by some of the ideas espoused in the 16+ Action Plan, the National Council for Vocational Qualifications was created, to develop "a new system of qualifications that deliver the skills needed by industry" (Phillips, 1998, p. 64). Initially the NVQ framework was envisaged as including all existing vocational qualifications, but what emerged was a new set of outcomes-based qualifications alongside some existing qualifications and replacing others.

These two developments—the 16+ Action Plan in Scotland, and the NVQ framework across the UK—different as they were, are generally seen as the origins of the NQF phenomenon. Influenced by both of them in different ways, by the mid-1990s there were frameworks established or in the process of being established in Australia, England, New Zealand, Scotland, and South Africa.

In the late 1990s and early 2000s, frameworks started to be established in other countries. Much of this spread was in vocational education, often using the British NVQ model as a basis. For example, when the first National Training Agency for Commonwealth Caribbean countries was established in Jamaica, it used a five-level framework based on NVQs. Barbados and Trinidad and Tobago followed suit. Both developments were based on competency-based qualifications developed through "industry driven" processes (Holmes, 2003, p. 98). In some Latin America countries, frameworks of labour competencies were also developed, again influenced by the British NVQs, and competency-based training became a major feature of vocational education in Latin America (Vargas, 2005). In the late 1990s what is referred to as 'the Bologna Process' introduced the ideas of levels and outcomes to higher education reform in Europe.

From about 2005, NQFs were developed in many countries in the Asia-Pacific region, particularly for vocational education. There has recently been a dramatic increase in the number of European countries developing qualifications frameworks following the adoption of the European Qualifications Framework (EQF) by the European Union in 2008; according to Cedefop (2009b), all European Union countries are now signalling that they will develop comprehensive NQFs.

Regional qualifications frameworks are also being designed or implemented in different places around the world, influenced by and influencing the development of NQFs. The European Qualifications Framework for Lifelong Learning was adopted by the European Parliament and Council in 2008. It is aimed at post-secondary education and training, and is described as a 'translation instrument.' This seems to mean that although it is called a 'qualifications framework', it will not be comprised of 'qualifications' *per se*, but will rather be the set of level descriptors which will be used to agree on common 'levels' for qualifications across Europe. The framework has already been influential, leading to most European countries adopting an NQF. The EQF has also been used beyond Europe in the development of NQFs, and is seen as the basis for regional frameworks internationally.

The Caribbean Community (CARICOM) qualifications framework has been developed for vocational education in the Caribbean. This framework is specifically focused on the adoption of competency-based education and training, which was endorsed by the Council for Human and Social Development for vocational training in CARICOM member States since 2002. Adoption of this model included accepting a five-level framework of occupational standards already developed in the region; accepting a process of standards development; and accepting a specific process of training delivery and assessment for certification.

The Southern African Development Community (SADC) Integrated Council of Ministers approved the development of a Southern African Qualifications Framework in June 2005. The focus is on technical vocational education and training as well as promoting the development of qualifications frameworks in individual countries. It is intended to ensure effective comparability of qualifications and credits across borders in the SADC region, to facilitate mutual recognition of qualifications among member States, to harmonize qualifications wherever possible, and create acceptable regional standards where appropriate.

Under the Association of Southeast Asian Nations (ASEAN) Australia Development Cooperation Program, the Enhancing Skills Recognition Systems in the ASEAN project was designed to assist ASEAN countries to keep their skills recognition arrangements under review in order to meet emerging industry and employment needs across the region. A framework of occupational competencies at four levels of certificate has been developed, at the semi-skilled worker, skilled worker, tradesperson/equivalent and supervisor/equivalent levels. A regional qualifications framework has been proposed. The need for a qualifications framework is also being considered for nations within APEC (APEC, 2009).

The Pacific Islands countries are developing a unified register, Pacific Regional Qualifications Register, with the longer-term aim of expanding it to a qualifications framework. Parallel to this is the development of an inventory of technical vocational education and training programmes. The development of this register of qualifications by the South Pacific Board for Educational Assessment has been strongly supported by the following Pacific Islands countries: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu (Lythe, 2008, p. 56).

A transnational framework is being developed for small (population-wise) commonwealth countries.[4] It is defined as a 'translation instrument', and includes higher education and post-secondary technical and vocational qualifications. Various members of the regional qualifications frameworks listed above would also be members of this framework.

Many of these frameworks were predated by conventions or declarations developed through UNESCO (for example, the Lisbon convention and Bologna Process in Europe, the Arusha declaration in Africa), which aimed to ensure that countries recognized qualifications and part qualifications within different regions.

Table 1 provides a brief overview of the development of NQFs, starting with the reforms in Scotland that led to the Scottish Credit and Qualifications Framework (SCQF). The information presented in the table is drawn from research and policy documents listed in the references, as well as consultation with policy developers and consultants; specific sources are not provided in the interest of making the table easy to read.

[4] This includes Antigua and Barbuda, Barbados, Belize, Botswana, Cyprus, Dominica, Grenada, Guyana, Jamaica, Lesotho, Maldives, Malta, Mauritius, Namibia, Papua New Guinea, Samoa, Seychelles, Sierra Leone, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Swaziland, The Bahamas, The Comoros (non-Commonwealth), The Gambia, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu.

Table 1: A timeline of qualifications frameworks

1983	The Scottish *Action Plan* (*16-18s in Scotland: An Action Plan*) introduced outcomes-based, portable, 'institutionally versatile', modules for vocational education.
1985	Establishment of Scotvec.
1986	Review of Vocational Qualifications established in the UK which recommended the competence-based NVQ framework. Review in New Zealand suggests 'achievement-based' awards for school system.
1987	*Australia Reconstructed* report: emphasis on the notion of skills and the role of education in making Australia more productive and competitive internationally, exposing providers to competition, establishing recognition system. National Council for Vocational Qualifications established in the UK.
1988	First NVQs awarded in the UK.
1989	Scotvec extended modularization to Higher National Certificates and Diplomas.
1990	New Zealand Qualifications Framework created, with aim of being fully operational by 1997, and phasing out all existing qualifications. First officially titled National Qualifications Framework.
1991	SCOTCAT (Scottish Credit Accumulation and Transfer scheme) launched for all higher education in Scotland. Publication of Gilbert Jessup's *Outcomes. NVQs and the Emerging Model of Education and Training.*
1993	Malaysian National Skills Qualifications Framework (occupational qualifications only).
1994	National Council for Standardization and Certification established in Mexico.
1995	Australian Qualifications Framework established. South African Qualifications Authority Act passed, aiming to phase out all existing qualifications by 2002. Competence framework initiated in Chile.
1999	*Higher Still* introduced in Scotland: 'unified system' of academic and vocational awards for the 16-18 age group. Ireland passes Qualifications Act. A White Paper in New Zealand signals major changes to the framework. Bologna Declaration signed, through which 29 (now over 40) European countries agreed to start aligning their higher education systems.
2000	Singapore National Skills Recognition System.
2001	Scottish Credit and Qualifications Framework officially introduced. Mauritius Qualifications Authority Act passed. Maldives National Qualifications Framework established. New Zealand Register of Quality Assured Qualifications created, incorporating the NZQF. Review of South African NQF commissioned. Brazil competence-based training system initiated.

2002	Qualifications framework established in France. Chile starts competence-based training activities through a national project named Chile Qualifies.
2002-2006	Frameworks under development in Fiji, Samoa, Singapore, Vanuatu, Hong Kong SAR, Maldives, Tonga.
2003	Frameworks established in the Philippines and Ireland. East European and ex-Soviet States join Bologna Process. Belgium initiated Flemish Qualifications Framework development. Germany initiated Qualifications Framework development. First journal of research articles on NQFs (special edition of the Journal of Education and Work).
2004	Latvia start Qualifications Framework development.
2005	Vanuatu qualifications framework adopted. Work started on Qualifications Framework in Finland, Malta, Norway, The Netherlands. Consultation started on European Qualifications Framework.
2006	Work on Papua New Guinea National TVET Qualifications Framework, Albania Qualifications Framework, Czech Republic, Montenegro, Romania, Poland started. First two frameworks (Scotland and Ireland) self-certified against the Bologna framework.
2007	Malaysian Qualifications Framework adopted. Expansion of Maldives Qualifications Framework to incorporate technical and vocational qualifications. Frameworks being developed in Andorra, Armenia, Belgium (French), Bosnia and Herzegovina, Croatia, Georgia, Iceland, India, Lithuania, Pakistan, Sweden, Switzerland. OECD report on qualifications systems published. Colombia initiates competence-based training.
2008	The European Qualifications Framework for Lifelong Learning agreed. Levels established in Viet Nam for vocational qualifications, effectively establishing a framework. Albania Qualifications Framework adopted. New Qualifications Framework developed in Denmark. Frameworks being designed in Austria, Bangladesh, Bulgaria, Italy, Lichtenstein, Turkey. Cyprus and Ukraine decided to develop an NQF. South African NQF substantially changed through new legislation.
2009	Following two years of tests and trials by the Qualifications and Curriculum Authority, the new Qualifications and Credit Framework was approved for England, Northern Ireland, and Wales.

Table 2 provides a picture of which countries are involved in developing NQFs, and their stages of development. Countries are located by region according to the stage of development of their framework. The intention here is to give a very 'broad brush stroke' picture of 'the state of the art'. As NQFs are constantly under development, some countries may have already changed since this was written, but it is hoped that the table below gives some indication of international development of NQFs.

The stages of development in the table below, according to which countries are categorized, are defined in very broad terms. A detailed examination of any one particular country would probably lead to debate about the best classification, as well as about the categories themselves. However, the table, while certainly open to contestation, provides a preliminary indication of which countries are involved in the development of NQFs or related policies.

Five stages or types are distinguished, merely for the purpose of this overview table. These relate roughly to the categories suggested by Deij (2009). However, the table below refers to 'established' NQFs as opposed to 'implemented', as in some countries implementation is rather incomplete, but nonetheless an NQF has been officially established. The fifth category accommodates countries in Latin America, as the experience of competence frameworks has bearing on NQFs. Our category 3 includes Deij's (ibid) 'conceptualization stage', and 'design stage'. The types or stages are as follows:

1. **Established.** The NQF has been made official through formally announced policies or legislation. Structures exist or have been set in place to fulfil the various roles associated with the NQF. There are qualifications on the framework.

2. **Developing and implementing**. The country is in the process of developing policy and structures through which the NQF will be implemented.

3. **Planning and/or designing**. The country is exploring what the NQF should look like, how it should work, and what the roles of various role-players and stakeholders should be.

4. **Considering**. The country is considering implementing an NQF.

5. **Competence framework or competency-based training system**. The country has established or is establishing competency-based training in different levels and covering various qualifications. This includes the development of mechanisms to identify competencies and standardize them as well as recognizing prior learning. This usually occurs in a competence framework with different levels and areas, and does not necessarily imply a move towards a full NQF.

In order to provide an overview at a glance, sources of information here are not provided. They include many of the texts in the reference list, but information was also obtained from consultants and experts. The information is highly provisional, and the table is meant only to provide some indication of trends.

Table 2: A tentative overview of NQFs internationally

	1. Established	2. Developing and implementing	3. Planning and/or designing	4. Considering	5. Competence framework
Sub-Saharan Africa	Botswana, Mauritius, Namibia, South Africa	Lesotho, Seychelles	Angola, Ethiopia, Kenya, Nigeria, Rwanda, Zambia	DRC, Ghana, Madagascar, Malawi, Mozambique, Swaziland, Tanzania, Uganda, Zimbabwe	
Americas & the Caribbean	OECS	Barbados, Canada, Honduras, Jamaica, Trinidad and Tobago	Antigua and Barbuda, Chile, Colombia, Grenada, Guyana		Brazil, Costa Rica, Dominican Republic, El Salvador, Guatemala, Mexico Nicaragua, Panama
Asia (South & East) & Pacific	Australia, Hong Kong SAR, Malaysia, New Zealand, Philippines, Samoa, Singapore, Sri Lanka, Vanuatu	China, Fiji, Maldives, Pacific Islands, Papua New Guinea, Thailand, Tonga, Viet Nam	Bangladesh, India, Pakistan	Afghanistan, Bhutan, Brunei, Cambodia, China, Japan, Laos, Macau, Mongolia, Nepal (has NVQs), Republic of Korea	Indonesia
Europe & central Asia	England, France, Ireland, Malta, Northern Ireland, Romania, Scotland, Wales	Albania, Belgium Flanders, Bosnia, Czech Republic, Estonia, Georgia, Kosovo, Lithuania, Montenegro, Portugal, Slovenia, Turkey	Andorra, Armenia, Austria, Belgium French, Croatia, Cyprus, Denmark, Germany, Greece, Hungary, Iceland, Italy, Norway, Poland, Russian Federation, Serbia, Slovak Republic, Spain	Azerbaijan, Bulgaria, Kazakhstan, Kyrgyzstan, Latvia, Luxembourg, Macedonia, Switzerland, Ukraine, Uzbekistan	
Middle East & North Africa		Tunisia	Algeria, Egypt, Jordan, Morocco, United Arab Emirates	Iraq	

3.4 Some issues raised in the literature

It is difficult to conceive a large-scale national education and training system that does not have qualifications. Historically, a qualification, such as a degree, diploma, or certificate, has been seen as a token or evidence of sustained study for a designated period in a designated area. But over the course of the twentieth century, qualifications have taken on increasing significance, leading to the intense activity now seen around the world in the development of qualifications frameworks. During the twentieth century, access to livelihoods has increasingly been shaped by access to formal education and training, as signified by educational qualifications (Little, 2000). In the latter half of the century, this became more emphasized, as more and more people started to obtain qualifications. Increasingly, more qualifications are on offer and more money is spent by public authorities on administering qualification systems, and by individuals in gaining qualifications (ibid). Simply in terms of scale, as more people take up qualifications, it becomes more important for them to be understandable, and have relationships with each other.

In countries or sectors of economies where there are surpluses of qualified workers, qualifications become used as screening devices, rather than as indicators of the attainment of skills necessary for the job in question (Shields, 1996). This has led to what Dore (1976) described as the 'diploma disease' (his concern was primarily with the negative effects that this trend had on the nature of education). Increased international trade in education and training has also contributed to a growing focus on qualifications (Holmes, 2003). Related to this is the extent to which, in certain professions and trades and at certain levels, labour markets for key occupations have started to function more globally. At the same time, as Johnson and Wolf (2009b) point out, while trade in goods and services has globalized, international movement by individuals is in key respects more restrained than it was in the nineteenth century, and qualifications often part of the regulatory frameworks controlling such movements.

Policy borrowing is a key feature of the literature on qualifications frameworks. This is not unusual: countries seeking to introduce an educational reform often quote each other's policy documents as a way of attempting to establish the credibility of the idea (Levin, 1998). Fragile states seem to adopt models of education from more dominant states to send signals that they are committed to what is viewed as progress and modernization (Chisholm, 2005). Spreen (2001) argues that recent decades have seen an increase in policy borrowing and sharing, and local policy makers use external interest and the availability of external support to elevate the priority of the particular objectives or programmes in which they are most interested. This means that the influence of external agencies has been substantially greater than the direct value of their relatively small contribution to overall education and training spending (ibid, p. 54). Related to this is the work of international consultants and technical experts. As Edward French argues:

> Perhaps the most supportive aspect of the international NQF movement is the collegial community of insiders and engaged practitioners. There is a small international network of experts who know the theory very well and have participated in the short but intensive history of implementation of NQFs, however varied this has been. In as much as it is possible in a world so full of higher-order abstractions, they speak the same language (French, 2009, p. 58)

Edwards, Nicoll, Solomon, and Usher (2004) point out that the construction of education policy internationally is dominated by several common themes: the need for change is cast largely in economic terms, as the enhancement of human resources; education and training systems are increasingly described as failing; changes in education and training are being required without a significant increase in resourcing from governments; educational reform is promoted through changes in forms of governance; education and training organizations are being required to work in more commercial and market-like ways; and there is an increased emphasis on standards, accountability and testing. Qualifications frameworks seem to play a key role in this approach to reform.

As governments have looked for closer links between the economy and education, qualifications have taken on a new significance (Lowe, 2000). Most research which considers NQFs from the point of view of political economy argues that they are linked to neo-liberal public sector reform (Strathdee, 2009; Wheelahan, 2009; Allais, 2007a, 2007c; Young, 2005, 2003; Spreen, 2001; Phillips, 1998). Young (2003, p. 232) suggests that qualifications frameworks represent an "almost paradigm case of government intervention in a neo-liberal economy", as they are attempts both to gain greater central control and to give greater choice to individuals. In reference to the National Vocational Qualifications in the UK, he points out that the increased emphasis on qualifications by British governments since the mid-1980s was closely linked to marketization policies forcing education and training providers to compete for students (and therefore funds). In other words, qualifications offer an ideal instrument for a government in this kind of context as they appear to serve a dual purpose of providing incentives to individual learners and making institutions more accountable. Similarly Tuinamuana (2003) drawing on the arguments of

Ball (1998), suggests that qualifications frameworks can be seen as part of a new approach to management, which emphasizes efficiency and effectiveness, using techniques appropriated from the business sector. She argues that this new approach to management operates in support of a neo-liberal economic system as education policy is increasingly shaped by economic objectives and business priorities.

In the past, the professional judgement of teachers and lecturers was seen as the basis of standards and the guarantor of progression. With more and more individuals obtaining higher levels of qualifications, particularly in richer countries, there has been increasing emphasis on developing more explicit criteria, and more transparent ideas of what actual competences qualifying learners have.

Although Coles (2007, p. 7) suggests that qualifications frameworks involve "defining levels through descriptors that are sometimes written on the basis of learning inputs and sometimes written on the basis of learning outcomes", the main focus in most literature on qualifications frameworks is on learning outcomes. Coles (ibid, p. 22) argues that the intention is "to chart a course from a system with curricula, assessment methods and qualifications that are based on inputs of content, teacher-time and norm-referenced assessments to a criterion-referenced system based on agreed learning outcomes". Coles (ibid, p. 3) suggests that NQFs are intended to make qualifications more "user-oriented", which, he argues, means weakening the control of education and training providers over qualifications.

The 'shift to outcomes' (Cedefop, 2008) is widely (if largely uncritically) supported internationally, and represents a real change in how qualifications are thought about. This may relate to the fact that many qualifications frameworks are only for technical vocational education and training and competency-based approaches have long been prevalent in many countries in technical vocational education and training (Comyn, 2009)'. However, many qualifications frameworks including higher education are also based on learning outcomes, and Cedefop (ibid) suggest that the learning outcomes approach is starting to take hold in higher education as well as in school systems.

Traditionally 'qualifying' denotes a process of learning as well as the completion of a formal, institutionalized assessment procedure (Fuller, 1999). The 'shift to outcomes' is an attempt to create qualifications which are not linked to specific learning programmes or institutions. Specifications for the award of qualifications are developed, which include statements of the outcomes which must be achieved in order for an individual to be awarded the qualification. Such qualifications, it is hoped, can then be awarded to anyone who can demonstrate the appropriate competencies, whether or not they have attended an educational institution. If this shift is implemented, it has important implications for ideas about knowledge and skills in education and training, as well as ideas about managing and delivering education and training. It is generally agreed, for example, by both supporters and critics of NQFs that they shift power away from educational institutions and towards other stakeholders, particularly employers. It is also generally agreed that the radical nature of this shift is not always clear to those involved (Cedefop, 2008; Allais and Young, 2009; Chakroun, 2010). What is *not* agreed is what the effects of this are likely to be, and whether it is likely to have positive or negative results.

Advocates suggest that a learning outcomes approach can increase access to education by making entrance requirements more fair and transparent, and because individuals can be awarded certificates based on what they already know (Jessup, 1991). Learning outcomes are also seen as linked to what are described as better pedagogical approaches (Cedefop, 2008). Researchers who support this move argue that qualifications frameworks represent 'new notions of knowledge', and a 'new hierarchy' in which "education providers are no longer the leaders and standards-setters, and content (or inputs) is no longer the starting point" (Commonwealth of Learning and SAQA, 2008, p. 44). This is captured in a process known as 'designing down', illustrated in the figure below (ibid):

Figure 1: Designing Down

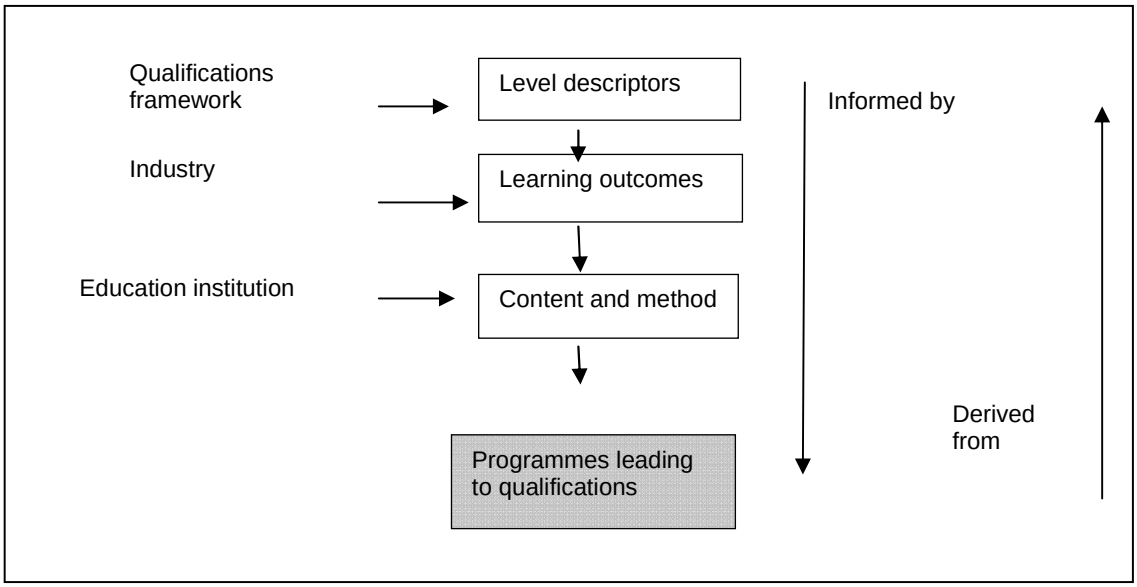

Figure 1 indicates an approach similar to that of competency-based training, but extended beyond vocational and/or workplace-based training to other areas of education and training systems. In this diagram, and in the body of the report which contains it, qualifications frameworks are seen as shifting power over qualifications towards employers, and away from educational providers.

However, there is considerable criticism of this approach. Researchers have shown that when the attempt is made to achieve precision in the specification of learning outcomes (or competences), as in the case of National Vocational Qualifications in England, definitions of outcomes become narrow and ultimately trivial. Guthrie (2009, p. 25), in a largely sympathetic review of competency-based training in Australia suggests that:

> … the assumption that human capabilities can be unequivocally described and accurately communicated by means of language is unfounded. So, at best, written competency standards are rough and ready, though useful, guides, and we should be wary of assuming that actual realities of what competence is are reflected in the words used to describe them. Therefore it is not the words that are important but what they *mean*, and the extent to which what they mean is widely *understood*.

Wolf (1995) provides detailed empirical evidence and theoretical arguments to show that the specification of outcomes and assessment criteria, as well as assessment on the basis of assessment criteria, were unsustainable in the English NVQs. She also demonstrates (Wolf, 2002) how the qualifications created through the NVQ framework were seen as undesirable not only by parents and young people, but also by employers, the very constituency they were primarily aimed at. Allais (2007b, 2007c) explores the same problems in the South African NQF. She argues that outcomes-based education undermines the need for specific expertise in the selection and sequencing of knowledge and skills which are essential to curriculum design, and that in the absence of strong professional associations and strong educational institutions, it leads to very varied standards. Other researchers have argued that NQFs designed according to an outcomes-led or competency-based approach are built on flawed epistemological foundations, and that although they

seem appealing, in practice they are based on misunderstandings about the nature of knowledge and skills.[5]

Wiliam (1996, p. 304, cited in Weeden, Winter and Broadfoot, 2002, p. 32) argues that 'standards' are socially constructed, rather than something precisely measurable:

> Examination results are social facts. Like bank notes they depend for their value on the status that is accorded to them within a social system. As foreign currency markets have found out to their cost, it is not possible to create comparability by fiat. Similarly, all attempts to define 'equivalence' independently of the social setting in which they are created have failed, and indeed are bound to fail. Two qualifications are comparable only to the extent that there are people who are prepared to believe that they are comparable, and trust awarding institutions or bodies equally.

Fuller (1999, pp. 14-15) suggests that:

> …….qualifications gain their worth from the institutional and symbolic meanings they convey between social groups including qualification recipients, parents, friends, and other users such as employers, educational institutions, and occupational and professional associations. These meanings are historically and socially constructed through the use of qualifications in everyday life and through their role in helping to pattern social relations and social reproduction. It follows that perceptions of the value of particular qualifications may alter over time as their meanings are negotiated or disputed.

In other words, the value of qualifications relies crucially on the trust placed in providers and awarding institutions—trust that is built up over time, and cannot simply be established through regulation or decree. Allais and Young (2009) suggest that qualifications are proxies for what people 'know and can do' and therefore are better seen as mediators of different parts of the education system and between education and employment than as drivers of educational reform. However, there is a serious problem where there is little trust in providing and awarding institutions, as may be the case in many countries, and because providing institutions in one country or region may not be known in another country or region.

As already discussed, researchers have also pointed out that while qualifications frameworks are generally described in terms of learning outcomes, the term 'learning outcomes' is interpreted in widely different and sometimes incompatible ways (Bohlinger, 2007; Brockman, Clarke and Winch, 2008; Cedefop, 2008; Coles, 2007).

In his comprehensive overview of qualifications frameworks internationally up to 2005, Young (2005) argues that all countries implementing frameworks have faced problems, and points out that qualifications frameworks have been the subject of a number of reviews, evaluations and critiques. Allais, Raffe and Young (2009) argue that qualifications are not separate factors alterable independently of the other ways in which education and training systems and economies are linked. It is perhaps not surprising therefore that introducing NQFs has had unintended (and often unwelcome) consequences as well as leading to some of the changes that were intended. They suggest that key unanswered questions include: What is involved in changing a qualification system which is closely linked to institution-based teaching and learning programmes to a qualification

[5] For example, Allais (2003, 2007a, 2007b), Allais et al. (2007), Donnelly (2005), Ensor (2003), Gamble (2002, 2004a, 2004b, 2005), Hall and Woodhouse (1999), Morrow (2001), Muller (1996, 1998, 2000a, 2000b, 2001, 2004), Shalem, Allais, and Steinberg (2004), Taylor (1993, 2000, 2002), Wolf (1993, 1995); Young (2001, 2003, 2005, 2007a, 2007b, 2008).

framework which typically expresses qualifications in terms of learning outcomes that are not tied to any specific learning processes or programmes? Can qualifications frameworks drive reform? Can learning outcomes or competency statements ensure that education and training systems meet the requirements of the economy? What is at stake in introducing an outcomes-based or competency-based qualifications framework? What might the losses and gains be? Can qualifications frameworks support changes in economies and education and training systems, and improve the linkages between the two?

The current research contributes to answering these questions. It attempts to provide empirical evidence about how qualifications frameworks have been designed, developed, implemented, and used, as well as how successful they are.

Chapter 4: Summary of the case studies

These short summaries provide very brief information on the development of qualifications frameworks in each of the countries in the study. The summaries do not provide analysis or discussion, and, of necessity, do not offer a comprehensive account of developments in each country. They are intended to help the reader of this report to have a sense of how qualifications frameworks have developed in each of the countries, in order to better understand the discussion and analysis which follows in the remainder of the report, where more details about various aspects of the frameworks are provided. The full case studies are available at www.ilo.org/skills (Australia, Bangladesh, Botswana, Chile, the English NVQs, Lithuania, Malaysia, Mauritius, Mexico, New Zealand, Scotland, South Africa, and Sri Lanka) and at www.etf.europa.eu (Russia, Tunisia, Turkey). The five case studies on the first qualifications frameworks are also available in an ILO Working Paper (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009).

The summaries are presented in roughly chronological order in terms of the period of implementation of the respective frameworks. Brief contextual information is provided about each country, to highlight the very dramatic differences in the countries which are implementing NQFs. This includes GNI PPP (gross national income calculated according to purchasing power parity) per capita;[6] United Nations measured Gini coefficients[7] (which provide a measure of income inequality, with 0 representing perfect equality, and 100 absolute inequality); and each country's ranking on the list of 182 countries on the Human Development Index (HDI) of the United Nations Development Programme.[8] Additional specific contextual information is provided in some cases. Other than those mentioned directly above, the sources for all information cited in the summaries are the country case studies. Where analysis is provided, or assertions made, these are derived from the case studies, which can be read in full on the website.

The NVQs in England, Wales, and Northern Ireland

The United Kingdom is a unitary state consisting of four countries: England, Northern Ireland, Scotland, and Wales. An island country, it occupies roughly 244,820km^2, and has a population of over 61 million. It is one of the biggest economies in the world, with GNI PPP per capita of USD 36,130, and a Gini coefficient of 36. It is ranked 21 on the HDI. Its history as a colonial power as well as its economic success has meant that its education and training system has influenced many other countries in the world.

The United Kingdom has generated several qualifications frameworks; this study focuses only on the National Vocational Qualifications (NVQs), despite the fact that they did not constitute an NQF *per se*, because of their enormous influence on subsequent frameworks in other countries. The NVQs were launched in England, Wales, and Northern

[6] http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf accessed 25th November 2009.

[7] Except for Mauritius, for which the United States Central Intelligence Agency rating is used, and Scotland which does not have a separate rating from that of the United Kingdom.

[8] This is based on a wide range of indicators which can be found at www.hdr.undp.org, accessed 30th October 2009.

Ireland,[9] but not in Scotland, in 1987, as a framework for rationalizing was what described as a 'jungle' of existing vocational qualifications. The NVQs were not intended to be the basis for a comprehensive NQF for all qualifications, but successive governments were committed to using them to replace all other **vocational** qualifications, especially those which involved government funding.

The NVQs originated in a 1981 New Training Initiative, which claimed to introduce 'standards of a new kind', and a Review of Vocational Qualifications which reported in 1986. The Review was partly a response to the fact that government wanted a basis for accrediting the learning of young people who had participated in a recently launched Youth Training Scheme. Related to this was an awareness of the limitations of the existing system of vocational qualifications which had developed at a time when many jobs required few skills and little knowledge. Many occupational sectors had little training available or qualifications which could be obtained, few existing qualifications had any links with each other, and many vocational qualifications were not available at lower levels. Also, the government of the time felt that education and training providers had too much power, and that they 'monopolized' provision, and that trade unions had too much power in the apprenticeship system. Introducing qualifications not linked to specific institutions or awarding bodies, through specifying competencies or outcomes to be acquired, was seen to provide government with a mechanism to tackle these perceived problems.

NVQs replaced the previous 'occupational specialization' approaches to designing qualifications with a generic method known as *functional analysis*, which was applied to all occupations and sectors. Originating in occupational psychology in the USA in the 1960s and the earlier ideas of scientific management, functional analysis attempted to develop statements of competent workplace performance from sets of individual 'elements of competence' and their associated 'performance criteria'. These 'elements of competence' (they later became known as 'occupational standards') were then grouped together into 'units of competence'. Each NVQ was made up of a number of related 'units of competence'.

The NVQs were the first national attempt to base vocational qualifications on the idea of competences or outcomes that were independent of inputs. They remain, over 20 years later, the most widely known, widely copied and most heavily criticized model for a vocational qualifications framework in the world. The NVQs are still used in the United Kingdom, although the original NVQ model has been changed many times, and they are being replaced by the Qualifications and Curriculum Framework that is currently being introduced. Approximately 12 per cent of the workforce in the United Kingdom now have a National Vocational Qualification. However, it is difficult to estimate the proportion of NVQs that are obtained via government funded schemes which make them a requirement. Successive attempts have been made to reform NVQs in response both to the criticisms of researchers and the complaints of employers.

Scotland

Scotland is a small country which occupies 78,772km^2 of the north of the island of Great Britain. It has a population of just over 5 million, with a per capita income of USD 39,680.

[9] For ease of reading, the remainder of the report will refer only to the NVQs in England, or the English NVQs, without the addition of Northern Ireland and Wales.

The Scottish Credit and Qualifications Framework (SCQF) was formally launched in 2001 as a comprehensive framework of 12 levels, consisting of three sub-frameworks for different sectors of the education and training system. The idea of a comprehensive framework emerged in the mid-1990s; the SCQF can be seen as the culmination of a series of preceding reforms starting in 1984. When the SCQF was launched in 2001 much of its architecture was already in place or at an advanced stage of implementation: most mainstream Scottish qualifications were outcomes-based, albeit with varying and typically loose interpretations of outcomes. Most were unitized. Most were placed on a framework of levels, with mainly minor differences across types of qualifications in the boundaries between levels and the ways they were defined. Most were based on a concept of credit, again with relatively minor variations in definitions and metrics. There were well-established quality assurance systems.

The SCQF is intended to accommodate all qualifications and assessed learning in Scotland. It aims to support access to learning and make the education and training system more transparent, and to become the 'national language' of learning in Scotland. It is a voluntary framework, led by a partnership which initially comprised two higher education bodies, the Scottish Qualifications Authority (SQA) (the main awarding body for school and college qualifications), and the Scottish Government, and later included the colleges (multi-purpose institutions which, along with the universities, are responsible for most public, institution-based, vocational and general post-school education). Qualifications in the framework must be credit-rated, which means that each unit must be described in terms of a volume of learning (credit) at a given level of the framework. This in turn requires that units and qualifications are expressed in terms of learning outcomes, but the framework does not impose a narrow concept of outcome or competence. The SCQF has a 'loose' design, although it embraces sub-frameworks which are more tightly specified. The framework was intended neither to establish new qualifications nor to overhaul existing ones.

It is at an advanced stage of implementation, at least as measured by the proportion of learning that it covers. The SCQF has linked the school and college qualifications awarded by the SQA and university degrees, the sub-frameworks owned by its main partners, but it has been slow to accommodate other qualifications, and evidence of *direct* impact on objectives such as increased access and transfer is limited. However, it is *associated with* positive developments in access, progression, and transfer; it has contributed to a more transparent, flexible system; and, above all, it has retained the support of all sectors of education and training. These achievements have enabled the SCQF to assume an almost moral authority among NQFs and to become a source of lessons to others.

New Zealand

New Zealand is a small country (268,680km^2) in the South Pacific Ocean. Its population is slightly over 4 million (the third smallest in the OECD) and it has the fourth smallest economy of the 30 OECD countries. It is ranked 20 on the HDI, with GNI PPP per capita of USD 25,090 and a Gini coefficient of 36.2. It is a small, isolated country with a low population density. It is heavily dependent for its economic progress on exports, still largely agricultural.

Although currently unemployment is very low, in the late 1970s and early 1980s, unemployment was relatively high, reaching 17 per cent for young people aged between 15 and 19 years. The economic problems of this period were an important part of the context leading to the implementation of the New Zealand NQF. In the 1980s and 1990s in New Zealand there was significant economic restructuring and moves towards a less regulated economy. These moves were designed to improve efficiency and promote enterprise through public sector finance management aimed at greater provider accountability and higher levels of user fees. The NQF was located as a key part of these reforms. It

represented an attempt to use outcomes-based qualifications to introduce more efficiency and greater marketization into the provision of education and training at all levels and in all learning areas.

The New Zealand Qualifications Framework was launched in 1991, following a series of educational reviews and reports that date well back into the 1970s. It was the first attempt to introduce a unified comprehensive **national** qualifications framework of 8 levels. The idea was that all forms of education and training would adopt a common system of measuring and recording learning, based on 'unit standards', which were part qualifications which contained learning outcomes and other specifications, and against which awards could be made. However, this original vision did not come to fruition, due to, amongst other reasons, resistance from universities and other groups, especially those involved in upper secondary education.

In some areas of vocational education, progress in developing unit standards and new qualifications was made, and in some areas the new NQF-based qualifications took hold; however, in many others they struggled to win the hearts and minds of users. The New Zealand Qualifications Authority could not convince the universities to adopt the unit standard model and the then government would not force them to. In 1994 the New Zealand Vice-Chancellors' Committee withdrew the university sector from the NQF altogether. Concerns about its implementation in schools led to a series of changes. By the mid-1990s, a stalemate had developed between various agencies involved in the implementation of the NQF, and progress implementing the NQF was limited. In 1999 a new government confronted the problem by broadening the framework. This led to the creation of a 'register of quality assured qualifications', which includes the unit standard-based qualifications as well as more 'traditional' qualifications. The Register, launched in 2001, now provides the structure that brings together all approved qualifications available in New Zealand. All qualifications must be described in terms of course objectives and learning profiles. Institutions do not have to adopt assessment against outcomes or unit standards in the way these were first envisioned and the New Zealand Qualifications Authority delegates the responsibilities for accrediting programmes to different agencies such as the New Zealand Vice-Chancellors' Committee. Recent governments have also adopted a policy approach that has a greater emphasis on investing in educational institutions, and do not control funding rigidly by learner enrollments, although there are clear attempts to steer provision in specific directions of perceived national interest.

Australia

Australia is a vast dry island-continent, 7,617,930km^2 in size, with a population of almost 22 million, mostly concentrated in large cities on the coasts. It is a land of immigrants, with about one quarter of all Australians born overseas. Australia has a strong economy, with GNI PPP per capita of USD 34,040, and is ranked second on the HDI, with a Gini coefficient of 35.2.

The Australian Qualifications Framework was introduced in 1995 and implementation was phased-in over five years. Australia has a comprehensive framework comprised of three sub-frameworks: one for secondary schooling, one for vocational education and training, and one for higher education. This encompasses all post-compulsory qualifications in Australia which includes senior high school certificates, vocational education and training qualifications and higher education qualifications. The framework consists of qualification *types*. Actual qualifications linked to specific institutions are then listed in sector-specific registers. The Australian Qualifications Framework is often portrayed as a relatively 'weak' or 'loose' qualifications framework because it does not have regulatory functions over the three sectors, nor many of the features of other NQFs, such as a taxonomy of learning outcomes, explicit levels, and a measure of volume (or time) of learning. The Australian Qualifications Framework does not play a direct role in accrediting qualifications or in quality

assurance, and accreditation and quality assurance processes are different for each sector. State government accreditation bodies are responsible for the senior school certificates, and a National Quality Council for vocational education and training is responsible for endorsing national training packages that are developed by industry skills councils. Universities are self-accrediting, while non-university providers must be registered by their state government and each qualification they offer must be accredited separately. However, there is currently a policy trajectory towards national accreditation and quality assurance arrangements for all sectors.

While there is one single qualifications framework, there is a strong division between the different sectors of the framework. Vocational education and training qualifications are based on competency-based training, with specifications of required competences or outcomes in 'training packages', while higher education qualifications and senior school certificates are based on syllabus or input models. The decision to develop a national system for all vocational education qualifications was a key driver shaping the Australian Qualifications Framework. There is no similar objective within the existing Australian Qualifications Framework for higher education or senior secondary qualifications in the different states. The vocational education and training sub-framework has much greater regulatory functions than the rest of the framework. When the national vocational education and training system was established in the 1990s, business and unions helped shape the structure and governance of the system, and the nature of qualifications as competency-based. Thus, industry interests shaped the structure of the Australian Qualifications Framework as far as it applies to vocational education and training. Besides creating an 'industry-led' training system, an important driving rationale of reform of vocational education and training has been to create an open, competitive training market. The 'training packages', which are similar to the English NVQs, were a key component of this: they were introduced to function as a regulatory mechanism against which all providers, public and private, should operate.

Despite the apparent indifference of most universities to the Australian Qualifications Framework, the universities' peak body has been influential in shaping the structure of the NQF and in maintaining the sectoral differentiation between vocational education and training and higher education by ensuring that its qualifications are clearly differentiated from vocational education and training qualifications on the framework.

The Australian Qualifications Framework Council is currently undertaking the final stages of consultation to shift from a relatively weak qualifications framework to a stronger one, including ten levels with a level descriptor for each. This will introduce far more prescription, and is based on an attempt to bring greater national coherence across the three sectors, and to facilitate student transfers, pathways, and credit transfer between education sectors. The Australian Qualifications Framework's limited success in achieving these objectives is one of the problems the current proposals are trying to solve.

South Africa

Situated at the southern tip of Africa, South Africa occupies 1,219,912km^2, with a population of over 47 million people. The notorious apartheid system created one of the most unequal and racially segregated societies in the world. Although by UN classification a middle-income country with GNI PPP per capita of USD 9,780, good resources, well-developed infrastructure, and strong financial, legal, communications, energy, and transport sectors, South Africa is only 129 on the HDI, and has a very high Gini coefficient of 57.8. Deeply-entrenched poverty among the majority of the population coexist with high levels of economic wealth and academic achievements among a minority. Forty-five per cent of South Africans live below the nationally determined poverty line, and unemployment levels are extremely high (between 25 and 45 per cent).

The NQF in South Africa was introduced in 1995 as an ambitious attempt to address the educational, social, and economic problems caused by apartheid. Apartheid was not just a political process of disenfranchising the black majority; it restricted most of them to intentionally inferior 'bantu education', and systematically closed off or distorted their participation in the economy. Education and training policy was central to apartheid. It was used to reinforce lack of democracy, as well as social and economic inequality, by destroying and restricting access to education and training, by providing poor quality education and training to most black people, and by controlling the content of syllabuses to reflect the interests of the apartheid state.

The South African NQF aimed to replace all existing qualifications in the country with a set of new qualifications and part qualifications (called unit standards) designed by new, stakeholder-based structures, and expressed in the form of learning outcomes. This was intended to ensure the overhaul of all learning programmes and curricula. At the same time, it was hoped to lead to new provision and new institutions, as well as to many individuals obtaining qualifications based on knowledge and skills that they already had. Models from Australia, England, and New Zealand were influential in the design of the South African NQF.

South Africa initially developed a single comprehensive framework of eight levels which was supposed to be the basis for the development of new outcomes-based qualifications to replace all other qualifications in the country. New qualifications and unit standards were developed and registered on the framework, but old qualifications linked to specific providers were also registered, resulting in a framework of nearly 8000 qualifications.

The NQF was widely supported by many stakeholders. But despite its unquestionably worthy goals, its implementation has been fraught with problems. Shortly after implementation got underway, disagreements and criticisms emerged, and a lengthy (seven year) period of policy reviews ensued. At the same time, implementation continued, largely funded by donors, including development of the new outcomes-based qualifications and unit standards according to the original model, but also accommodating existing qualifications in one single framework (which can thus be described as a 'register of qualifications' similar to that in New Zealand). The policy review was recently terminated by splitting the NQF into three separate but linked frameworks—one for higher education, one for schools and technical vocational education and training, and one for trades and occupational education. The new NQF has ten levels. The first two of the sub-frameworks were to be under the Minister of Education, and the third under the Minister of Labour. The outcomes-based model has been largely abandoned, although many outcomes-based qualifications remain on the framework, and some are still being developed. Most of the outcomes-based qualifications and unit standards have never been used. Nonetheless, the language of learning outcomes was still used, and there is still a single set of level descriptors. Very recently, things have changed again. In May 2009 the single Ministry of Education was split into a Ministry of Basic Education, and a Ministry of Higher Education and Training. All aspects of training, including for trades and occupations, are being moved to the latter ministry, and the Quality Council for Trades and Occupations was launched by the Minister of Higher Education and Training in February 2010. The Minister of Basic Education has introduced changes to the school curriculum, and recently declared that outcomes-based education is officially dead in South Africa. What effects this will have on the NQF remain to be seen.

Mexico

Mexico, at the South of North America, covers almost 2 million km^2, and has an estimated population of 109 million. The economy of Mexico is the 11^{th} largest in the

world, with GNI PPP per capita of USD 14,270. Mexico has a Gini coefficient of 48.1, and is ranked 53 on the HDI.

Mexico does not have an NQF, but has many years experience in the development of a Labour Competence Framework which shares aims and characteristics with many NQFs. The framework was envisaged as the basis for qualifications in technical vocational education and training as well as workplace-based training, but so far has mainly been used in the latter, and there mainly for assessment of prior learning. Educational institutions have continued to develop their own standards. The framework has five levels, and originally had 12 horizontal divisions, but this was later changed to 11, and then later again to 20.

The framework has been developed through two different projects, both of which were broadly concerned with vocational, technical, and workplace training as well as broader human resource development. The first project began in 1994, through the Secretariats of Labour and Social Provision and of Public Education, and funded through a World Bank loan. Influenced strongly by the English NVQ model, a key part of this project was the Labour Competence Standardization and Certification Systems, which aimed to create a transparent set of labour competence standards which, it was hoped, would lay the foundations for a future reform in both technical upper middle education, and workplace-based training. The National Council for Standardization and Certification of Labour Competence (CONOCER), was created, with broad stakeholder and inter-departmental representation, to establish an integrated unitary framework of 12 competence areas and five levels, to develop the labour competence technical standards with which to populate this framework, and to develop an assessment and certification system and the regulatory framework for awarding bodies.

The framework was designed in 1995. Lead bodies, including employers, workers, and sector experts, produced labour competence technical standards, based on the functional analysis approach of the English NVQs. Awarding bodies were accredited by CONOCER to verify the quality of assessment centres where candidates were to be assessed against standards. From 1996 to 2003, the Standardization System registered 601 labour competence technical standards or qualifications. Mainly low level qualifications were developed. From 1998 to 2003, 256,282 certificates were issued against these qualifications. Of these, one qualification generated 29.7 per cent of the certificates, and 80.7 per cent of the issued certificates corresponded to only 26 qualifications. Most of the qualifications remained unused, and many that were used were linked to specific government-driven training projects. Although the overall project included a focus on educational institutions, in most instances the standards developed did not relate to their courses, and they developed their own standards. Pilot projects were commenced in seven priority industries, and tourism and electricity reported some gains in terms of learners achieving certificates.

After the project ended there was an impasse from 2003 to 2005, and the Labour Competence Standardization and Certification Systems almost collapsed, partly due to lack of finances, and partly because of contestation between government departments about the status of CONOCER. This caused a serious problem with certification. In 2005 a new project began, funded by the Inter-American Development Bank. CONOCER was reorganized. This time the emphasis is on ensuring that the Labour Competence Framework relates to educational institutions as well as human resource development strategies in companies, and that stakeholder participation is improved. The grid has been changed to include 20 sectors. There is a stronger sectoral focus in implementation, with ten strategic sectors identified, although so far there is poor industry participation in many of them. From 2006 to 2009, CONOCER issued 121,598 certificates on 128 labour competence technical standards (20 per cent were based on the older standards). Both projects of which the Labour Competence Framework was a component have seen many different formulations of the competence standards. The problem of unused qualifications persists. Most recently there is an attempt to broaden the notion of standards in the qualifications,

and an emphasis on what are described as 'demand-oriented standards'. The first project was highly complex and contested, with different components led by different arms of government. The complexity of the project with so many different participant interests became more difficult to manage as time went by. The second project is led only by the Secretariat of Public Education. In 2008 the Mexican government decided to relaunch CONOCER with a new approach, which is described as working closely with enterprises and producing demand oriented standards.

Chile

Chile is a country in South America occupying a long, narrow coastal strip 756,950km^2 in size, with a population of 16.6 million. It has had sustained levels of high economic growth for 20 years, along with high levels of inequality, with a Gini coefficient of 52. An upper middle income economy, GNI PPP per capita is USD 13,270. It is ranked 44 on the HDI. Inequalities in income distribution are attributed to the low salary level of the unskilled working force, who have limited access to education and training. Chile has an intensely privatized education and training system.

Chile has very recently announced the intention of developing a comprehensive NQF. However, it has many years experience in the development of a National System for the Certification of Labour Competences which shares aims and characteristics with many NQFs, and was the focus of this research, although the developments towards the new NQF were also considered.

Competency-based training has been the focus of most reforms of vocational and workplace-based training in Chile for many years. In this context various attempts have been made to develop a framework of competencies. The World Bank played a major role in financing and supporting various reforms, and other international agencies such as the Inter-American Development Bank and the German Technical Cooperation (GTZ) were also influential. The OECD has been an influential voice through a series of educational reviews and recommendations. In 1999, a non-profit privately-owned corporation called *Chile Foundation* attempted to introduce the approach of the English NVQs. They were particularly impressed by the idea of recognizing experiential learning. Professionals and stakeholders were trained, unit standards were developed using the functional analysis approach, and assessment was conducted through pilot projects. Individuals were assessed to be inspectors in the construction sector, electricians, or plumbers. However, poor linkages persisted between education and training and workplace training, as well as between training and the workplace.

In 2002 the *Chile Qualifies* programme was launched, which aimed at setting up a continuous training system that would link with the formal technical vocational education and training system. Set up in the Ministry of Education, but linked to other ministries, and with a number of small regional teams, the programme involved all key role players. The institutionalization of the National System for the Certification of Labour Competences was a key component of the *Chile Qualifies* programme, and the *Chile Foundation* continued to play a role in this regard. To date, there are around 30,000 workers who obtained certificates through the Chile Foundation pilot project, although their certificates have not been recognized by the formal education and training system because of legal complications. After an eight-year process, the National System for the Certification of Labour Competences obtained legal status in 2008, and is in the process of becoming operational.

Workplace-based training in Chile is coordinated under the National Service for Training and Employment (SENCE). Originally set up as a funding agency, SENCE works through brokers, allocating money for courses. However, the certificates obtained from these courses are not always recognized by the formal education and training system. It was

hoped that the National System for the Certification of Labour Competences would solve this problem by providing a basis for certification. Initially problems with its legal status prevented this from happening. SENCE has now started to use the competencies in its financing of training and assessment. Unfortunately, the *Chile Qualifies* programme has had poor evaluations and is unlikely to continue or be institutionalized.

The Framework of Labour Competences was originally envisaged to apply to technical vocational education and training as well as workplace-based training, but has been mainly used in the latter, and with a focus on assessment of existing skills. Chile also has a framework of qualifications for the mining sector, with 9 levels in theory, but 5 levels for which qualifications have actually been developed.

Recent commissions and government structures have new proposals and plans for creating linkages between secondary vocational education and the world of work and the rest of the training system, consolidating a system of competences relevant to market demands, and evaluating and recognizing experiential knowledge. In the meantime, a qualifications framework has been set up in the mining sector.

Through the *Chile Qualifies* programme, an earlier attempt was made to create a comprehensive NQF. A feasibility study was conducted, and various investigations and plans made from 2003 to 2004. Later, in 2007, the Australian Department of Education, Science, and Training was contracted to provide recommendations on the implementation of an NQF. A major recent driver has been the Quality Assurance Framework set up in 2006 for higher education, with a focus on participation in the European processes, specifically the Latin American Project to implement the Bologna Process agreements—in other words, to align Latin American higher education with European higher education. However, the idea of the Labour Competence Framework is also seen as an important component of the proposed NQF.

Malaysia

Malaysia is a federation of states with a total surface area of about 329,750 km^2 and a population of about 28 million. It is classified as a middle level economy, with GNI PPP per capita of USD 13,740, ranked 66 on the HDI. Unemployment is low at about 3.7 per cent. Income disparities are relatively wide, with a Gini coefficient of 37.9. This is related to a substantial informal economy, and a large and mostly low-wage migrant worker population. The case study argues that there has been a tendency for industry to use low wage, low skilled labour as a substitute for investments in skills and technology transfer.

Malaysia established an official national qualifications framework in 2007. At the same time the Malaysian Qualifications Agency was established to manage the framework and its associated mechanisms. These developments, however, followed earlier developments across higher education, technical and vocational education and training, and the workplace training or skills sector.

Malaysia has a framework of eight levels for all qualifications excluding school qualifications. This consists of three sub-frameworks: a five-level skills framework, for workplace-based or short-term workplace-focused training, known as the National Occupational Skills Standards; a framework for vocational and technical qualifications awarded in the state polytechnics and community colleges; and a framework for higher education qualifications. The National Skills Qualification Framework was introduced in 1993. This was based on a five-level skills certificate framework, which was to merge into the National Occupational Skills Standards system for the skills sector. These qualifications are described as outcomes or competency-based. Mainly low levels of qualifications are awarded, and there is limited opportunity to move up the education and training system with them. In 1996 a National Accreditation Board was established for higher education,

with responsibility for regulating the standards of private higher education institutions (colleges and universities), which had increased in number following the liberalization of markets and increased public investment. School qualifications, which are excluded, have many variants, associated with different types of schools, quality, status, and which pathways they lead learners to, and are ostensibly at a higher level than some other qualifications which are on the framework.

The NQF relates to four types of providers—universities and colleges, polytechnics, community colleges, and skills centres. Funding and administration for these providers has been through three systems—those for universities and colleges, polytechnics and community colleges, and skills centres, respectively. Responsibility for the funding and administration of the skills centres is located in the Ministry of Human Resource Development, and for universities and colleges, and polytechnics and community colleges across separate divisions of the Ministry for Higher Education. A range of professional associations issue their own credentials and overseas qualifications are issued by some providers. As a consequence there have been parallel developments towards qualifications frameworks in Malaysia.

The qualifications in each of the three sub-frameworks are placed on a common set of levels, but the linkages or relationships between them are relatively weak at this stage. The institutions which provide them are quality assured through different agencies, there are different processes for developing qualifications, and there are different assessment and certification systems. The NQF in Malaysia is strongly driven by the higher education sector. For higher education, the focus of the NQF is to extend the 1996 quality assurance system to the public providers. However, the government also has the more extensive and ambitious agenda for the NQF of establishing an overall framework that covers qualifications across all three sectors and the relations between them. Like many other NQFs, it represents work in progress.

Mauritius

Mauritius is an island of 1,864 km^2 situated in the Indian Ocean, with a population of just under 1.3 million. It has a Gini coefficient of 37, and is ranked 81 on the HDI. An upper middle-income economy, it has GNI PPP per capita of USD 12,480, and unemployment is around 10 per cent.

The Mauritian NQF was created in 2001 through legislation that created the Mauritius Qualifications Authority, in the context of increased unemployment, skills shortages, and perceived failures in the education and training system. It was influenced by NQFs in New Zealand, Scotland, and South Africa. The NQF is a comprehensive, loose framework in which each sector (schooling, technical vocational education and training/workplace learning, and tertiary education) is separate, and wide latitude is given to each sector. Mauritius has a framework of ten levels, in which school qualifications, technical vocational education and training and workplace qualifications, and higher education qualifications are located in three separate sub-frameworks.

However, the NQF was also intended to introduce more specific changes to technical vocational education and training. Ensuring a separation of registration and provision, on the one hand, and the development of outcomes-based qualifications on the other, were the two key aims for technical vocational education and training. Previously, the Industrial and Vocational Training Board (IVTB), the main provider of technical vocational education and training in Mauritius, was also responsible for the registration of private technical vocational education and training providers, and managed a training levy. The Mauritius Qualifications Authority took over the function of registration of providers, and a Human Resources Development Council was created to manage the training levy. The Mauritian Qualifications Authority, however, does not have a role in schooling or higher education

with regard to registration of providers, curriculum development/programme approval, assessment and certification, and assessment. Schools are managed by the Ministry of Education, and examinations take place through a separate body, the Mauritian Examinations Syndicate. Higher education falls under a Tertiary Education Commission.

The Qualifications Authority is responsible for the generation of qualifications and unit standards (part qualifications based on specified outcomes) within the technical vocational education and training/workplace learning sector. This was intended within a competency-based training model, to give industry a central role in defining its required competencies. Industry Training Advisory Committees were created for this purpose, and it was anticipated that these qualifications would replace the existing qualifications as well as create qualifications and unit standards in areas that had previously not had formal qualifications. According to the Qualifications Authority 66 qualifications have been generated, although public information is only available on about 20 of these qualifications and 476 unit standards. None of these qualifications have been used by educational institutions or employers, and there is no designated awarding body for them. In the technical vocational education and training sector, the IVTB and many private providers continue to offer the National Training Certificate that predated the qualifications framework. This qualification has a specified curriculum, and is assessed and certified through the Mauritian Examinations Syndicate or the relevant international body. The IVTB continues to play a role in quality assurance for private providers that offer the National Training Certificate. There are also polytechnics for higher level technical vocational education and training provision, but they are managed under a specific structure set up under the Ministry of Education and Scientific Research. This structure may be merged with the IVTB in the future.

The Qualifications Authority works with the key bodies to reach agreement on level descriptors and the definition of qualifications, and coordinates a process of ensuring that all qualifications are located on the NQF, although individual providers make decisions about equivalence with regard to access and mobility of students.

Botswana

Botswana is a relatively large (582,000 km^2) sparsely populated country (about 1.7 million) in Southern Africa. Botswana's economy is often described as one of the most successful in Africa, with excellent growth dominated by diamonds and GNI PPP per capita of USD 13,100. However, unemployment is high, between 30 and 40 per cent, and 30 per cent of the country live below the poverty line. Botswana is ranked 125 on the HDI, and has a Gini coefficient of 61.

The NQF in Botswana was created specifically for the technical vocational education and training sector. In 1998, the Botswana Training Authority was created through a Vocational Training Act, following a 1996 GTZ-funded project to improve technical vocational education and training. This act gave the Botswana Training Authority the mandate to develop the Botswana National Vocational Qualifications Framework (BNVQF) and to facilitate training relevant to the labour market. Implementation of the BNVQF started in August 2004, after a four-year capacity building and staff development programme (March 2000 to July 2004).

The design of the framework was influenced by NQFs in New Zealand, South Africa, and the United Kingdom. The key concept was the development of unit standard-based qualifications; in other words, qualifications consisting of parts which could be separately awarded, and which were defined through learning outcomes or competences. The intention was that these new qualifications and unit standards would be the basis against which all provision would take place. The BNVQF was designed with three levels of qualifications, divided horizontally into 12 fields which were further divided into 64 sub-fields. Task

teams were constituted for 15 economic sectors, and stakeholders were trained in how to design unit standards. Workplace operations were to be the context for setting outcomes statements, broken down into specific outcomes and performance criteria for purposes of assessment. In practice task teams drew on existing curricula as well.

The development of unit standards to populate the framework has been slow, and uptake of those that have been developed even slower. By the end of 2008, 124 training providers were registered by the Botswana Training Authority, probably accounting for most providers in the country. However, most of these providers do not offer courses based on the newly developed standards. These providers are formally described as 'approved', instead of 'accredited'; the former is supposed to be a precursor to the latter. Neither the Botswana Confederation of Commerce, Industry, and Manpower (BOCCIM), which administers an extensive number of training programmes, nor the government-run vocational colleges, have adopted the unit-standards based qualifications. They both instead have continued to offer their own qualifications. Out of the 643 programmes offered across the 124 institutions under the BNVQF, only ten programmes comply with the unit standards specifications. The most used unit standards are 'generic' ones, like using computers and learning about HIV/AIDS, with no direct workplace link. Although no formal evaluation or tracer studies have been conducted, individuals interviewed felt that where courses have been conducted and unit standards awarded, they have not led to jobs or further study, the former because of a lack of available jobs, and the latter because there is no articulation between the vocational qualifications framework and the rest of the education system. However, in two instances, employer organizations who participated in the development of curricula and formulation of unit standards felt that the qualification acquired by employees was relevant to the workplace.

Given the vast nature of the country, and the fact that donor funds are no longer available for this purpose, the Botswana Training Authority's development of institutional quality assurance has been very slow, as visits to institutions are difficult and costly. There is some indication that Botswana is now interested in the development of an overarching NQF to link the vocational framework with the rest of the education system.

Sri Lanka

Sri Lanka is an island 65,610 km^2 in size, in the Indian Ocean about 31 kms off the southern coast of India. It has a population of around 20 million, with GNI PPP per capita of USD 4,460, and a Gini coefficient of 41.1. It is ranked 102 on the HDI.

Sri Lanka established an NQF for technical vocational education and training, known as the National Vocational Qualifications Framework (NVQF), in 2005, through two Skills Development Projects supported by the Asian Development Bank, the first of which started in 2002. This followed initial proposals made in the 1990s, as part of attempts to deal with youth unemployment, a mismatch between education institutions and the labour market, and limited career development opportunities for youth. The NVQF is located in the Ministry of Vocational and Technical Training, in a statutory organization called the Tertiary Vocational Education Commission.

Sri Lanka previously had a National Skills Standards and Trade Testing system, which was largely focused on the construction sector and was limited to four grades, the highest of which was the tradesmen category. This system was created based on the English NVQs, through a World Bank project but with British Council assistance. Technical vocational education and training was delivered through different providers based under 11 different ministries. Curriculum design, training processes, and assessment varied from institution to institution. It is believed that this is in part what has caused training not to meet industry needs, and which motivated the current reforms.

The new system is called the National Vocational Qualifications System. It attempts to bring coherence through a single set of standards and curricula, as well as a single set of agencies overseeing technical vocational education and training. There is a seven-level NVQF which so far has competency standards for 45 qualifications, based on 63 skill standards which were developed between 2006 and 2009. These have centrally-developed curricula which contain specified learning outcomes. Teacher and learner guides are also centrally-developed, and assessment procedures are specified. The majority of provision, 90 per cent, is through Vocational Training Centres under the Ministry of Vocational and Technical Training, and these Centres have been the focus of the implementation of the NVQF so far. Private and non-governmental organization sector vocational training centres have also been registered and accredited to provide NVQF courses within the NVQF.

The National Vocational Qualifications System includes specifications for testing and certification, through the Tertiary Vocational Education Commission and other associated government agencies for the registration of vocational training institutions, quality management and course accreditation systems, curriculum and trade testing instrument development facilities, and assessor training and registration. As part of the same broad reforms, a University of Vocational Technology has been established, and is currently being developed, although it has also started with its first intake of students. This is intended to ensure that there are pathways to higher education for students from technical vocational education and training, as they are unable to enter the conventional universities.

There is a strong emphasis on increasing the accountability of education and training providers to government, as the vast majority of them are government institutions. It is envisaged that the NVQF will play an important role in managing resource allocation to these institutions.

The NVQF builds on existing systems and practices in technical vocational education and training in Sri Lanka, but attempts are being made to make formal training more reflective of industry requirements, as well as standardizing formal training delivery, as these have been problem areas in the past. It is seen as a way of improving the quality of teaching and learning processes through the development of curricular materials (plus other capacity building inputs), and specified assessment procedures. It is hoped that it will provide a basis for the strengthening of accreditation mechanisms, ensuring greater accountability from providers, and improving rigour and relevance of assessment.

Turkey

Turkey is located in South Eastern Europe and South Western Asia. Its total surface is 783,562 km^2, with a population of 71.5 million, and GNI PPP per capita of USD 13,770. It is 79 on the HDI, and has a Gini coefficient of 43.2. Following a series of economic crises, unemployment is high, around 15 per cent.

The NQF in Turkey dates back to a technical vocational education and training reform process in the 1990s supported by the World Bank through which occupational standards intended to link both formal and non-formal training to the labour market were developed. This was coordinated by the *Turkish Employment Agency* (ISKUR), an organization under the Ministry of Labour and Social Security responsible for the provision of public employment services. Stakeholders (state, employers, and employees) were involved. Through the closure of the project in 2000, a draft law for the establishment of an Occupational Standards Institution was prepared. This was followed by an impasse, with debate about the location of the proposed institution. Finally in 2006 the Vocational Qualifications Authority was established under the same Ministry, with wide stakeholder representation.

An NQF primarily focused on vocational qualifications is now being developed through the development of occupational standards in different sectors. Eight levels with level descriptors have been adopted, based on the EQF. The long-term intention is to develop a comprehensive framework but the current focus is on vocational qualifications, with professional qualifications explicitly excluded. To date standards have mainly been developed at levels between two and five, and one qualification has been developed. The Vocational Qualifications Authority envisages that the full range of qualifications will start to be awarded in about five years' time.

Systems for testing, assessment, and certification as well as for the accreditation, authorization, and auditing of education and training institutions and testing and certification institutions are being designed. There is a strong focus on the creation of an accreditation system. Currently, educational institutions conduct assessment and issue certificates, with the approval of the Ministry of Education. The *Confederation of Turkish Tradesmen and Craftsmen* also currently plays an important role in assessment and certification, and awards certificates after the successful completion of examination conducted by its Chambers. This body has a wide network and plays an important role in the provision of practical training through its constituents (Occupational Federations, Tradesmen and Craftsmen Union of Chambers). Under the new system, it is envisaged that these functions will all be conducted separately, by institutions accredited for the specific purposes. An educational provider accredited to conduct assessment as well as to train would not be able to assess the students that it trained. Accreditation will be controlled by two institutions: the Vocational Qualifications Authority and the Turkish Accreditation Agency, which is an organization under the Prime Minister's office created in 2000. Accreditation by institutions with multilateral recognition agreements through the European Accreditation Association would also be valid. It is envisaged that assessment centres will be created. There are currently very few accredited institutions to conduct testing and certification activities.

The qualifications framework design is a voluntary one. Institutions will apply for accreditation for training, assessment, or certification of the qualifications developed on the framework on a voluntary basis. It is hoped that in the long run the NQF and national education and training system will be integrated and that both will award certificates for the same qualification(s).

Lithuania

Lithuania is a small country (65, 200km^2) with a population of about 3.36 million, in the northern part of Central and Eastern Europe. It was part of the Russian Empire from 1795 to 1918, independent until 1940, and incorporated into the Soviet Union from 1940 to 1990. It was restored as an independent state from 1990, but now has to deal with legacies of the former Soviet centralized economy, with highly centralized human resource planning, as well as the challenges of a rapid transition to market economy. GNI PPP per capita is USD 18, 210, and the Gini coefficient is 35.8, while ranked 46th on the HDI.

Lithuania's agrarian history, as well as the history of its incorporation into the Russian Empire and Soviet Union, are described as both having created conditions which led to weak and low status technical vocational education and training. The manner in which the transition to a market economy was handled further undermined trust in education and training institutions and eroded the value of qualifications in the workplace.

The NQF in Lithuania is in a preparatory stage. Design started in 2006 through a project of the European Social Fund, initiated by the Lithuanian Labour Market Training Authority. A team of experts was constituted to examine existing qualifications, develop conceptual documents, design standards, and prepare pilot versions of occupational

standards in the sectors of construction and hospitality. The process is described as a top-down, highly regulatory one.

In January 2008 a National Authority of Qualifications was established through amendments to legislation on technical vocational education and training. The intention was that it would be the central organization with responsibility for implementing the NQF. It was created as an independent agency, separate from the ministries, in order for it to oversee all aspects of qualifications at all sectors and levels. The initial focus was on vocational education. However, the government which came into power in 2008 abolished the National Authority of Qualifications in the same year, and transferred some of its functions to the Ministry of Education and Science. This was described as reducing bureaucratic arrangements and saving costs, and has centralized control over provision of education and training as well as quality assurance in the Ministry. The Ministry has delegated the implementation of the NQF to two subsidiary institutions, the Centre for the Methodology of Vocational Education and the Centre for the Evaluation of the Quality Studies of Higher Education. These are institutions that have played important roles with regard to curriculum design, coordinating assessment, awarding qualifications, and accrediting providers.

One of Lithuania's historical legacies is an absence of civil society institutions, with weak trade unions, weak networks of employers, and little trust in public institutions. An NQF is seen to be a mechanism which can build trust in institutions and social partners. At the same time, participation and partnerships are seen to be necessary in order to make the NQF work.

The Bologna Process is playing an important role in structuring of degrees and other qualifications in higher education. The three highest levels of the framework very closely correspond to the Bologna framework (bachelor, master, doctor) and are designed exclusively for higher education qualifications. The designing of the NQF in Lithuania has also been strongly influenced by the process of implementing the EQF and the general processes of integrating into the European Union (Lithuania became a member in 2004).

A decree to introduce the NQF has been prepared. It has been accepted by the Ministry of Education and Science and is currently with the Ministry of Social Security and Labour. It is hoped that it will be passed in 2010. The proposed framework has eight levels, with additional sub-levels at level 6. There is some concern that even if a comprehensive NQF is created, in practice it will split into vocational and higher sub-frameworks, with little communication between them. It is unclear how the development of the NQF will proceed after the decree has been issued. The next step is the design of occupational standards. However, the detail is unclear, largely because of two other ambitious and strategic projects that are in the pipeline: the implementation of a national modular vocational education and training system and the introduction of the European Credit Transfer System in higher education.

Tunisia

Tunisia occupies 163,610 km² in North Africa. It has an estimated population of just over 10.3 million, and GNI PPP per capita of USD 7,070. It is ranked 98 in the HDI and has a Gini coefficient of 40.8. Tunisia is an export- and tourism-oriented country, in the process of liberalizing its economy. It has had economic growth as well as relatively high levels of unemployment.

The NQF in Tunisia is a recent initiative of the Ministry of Education and Training, as part of attempts starting in 2007 to create what is described as a knowledge economy and a culture of lifelong learning. A major objective was to replace the existing occupational classifications. The focus is on higher education and vocational training. A framework of

seven levels has been proposed, but this may change to an eight-level framework based on the EQF, as aligning with Europe is a key concern in several employers' organizations in Tunisia. The new framework is designed as a classification of qualifications, based on previous classifications of employment, and it is envisaged that the new framework will have a regulatory role in the labour market.

The process of developing the NQF has been supported by the European Training Foundation (ETF) through a regional project involving several other Mediterranean countries, and has built on other reform processes, particularly competency-based approaches to curriculum reform supported by the World Bank, the EU, and French, Canadian, and German aid. A national working group consisting of key ministries, key industry role players, and trade unions, was created to oversee processes. A smaller team based in the Ministry of Education and Training, and supported by technical assistance from the ETF, started on initial work. In 2007 and 2008 there was a focus on design and conceptualization, starting with clarifying terminology, identifying levels of activity corresponding to the realities of the workplace, identifying qualification descriptors for each level of employment independently of the existing system of qualifications, and planning for the recognition of non-formal learning and developing standards. This was followed by periods of consultation and discussion with a broader representative group including other ministries. This process is described as difficult: stakeholders did not always feel equipped, in some instances unions saw the proposed NQF as threatening existing collective bargaining agreements, and participation from other ministries was not always consistent.

A law on vocational education and training passed in 2008 introduced the NQF. A decree was passed in 2009 introducing the NQF design, but the structures which will implement it are still under design and construction. The framework has seven levels, but may be changed to eight. The NQF is referred to as a **Classification** of Qualifications, rather than a **Framework**, as the focus is on rationalizing and improving the existing occupational classifications through level descriptors and learning outcomes.

A high-level stakeholder-based commission under the Council for Human Resource Development will be created, and charged with the governance of the NQF. There is currently debate about the main roles of this structure as well as its composition. The intention is to obtain international expertise to do further planning. In the higher education sector it is envisaged that a national authority for evaluation, quality assurance, and accreditation will be created in 2010 under the auspices of the Ministry of Higher Education. This would build on recent reforms in higher education which introduced a quality assurance system.

The NQF is located as part of a broader set of public sector reforms focusing on improving efficiency and effectiveness, with an emphasis on results-based budgeting and the decentralization of education and training. In the technical vocational education and training sector, this is reflected in pilots that have been established in 15 sectors. They are driven by centres established in each sector, which each have autonomy, a detailed plan of action, and a focus on partnerships with sectoral federations. They are working with French counterparts for expertise and support.

It is hoped that the new framework will have qualification descriptors that will increase transparency, thereby improving information flows in the labour market. There is also emphasis on improving the quality of education and training institutions. There is considerable donor funding and support involved. There is a strong emphasis on consultation and social dialogue, although at the same time there is an emphasis on moving the processes as fast as possible.

Bangladesh

Bangladesh occupies 144,000 km^2 in South Asia. It has a large population of slightly under 150 million, making it the most densely populated country on earth. GNI PPP per capita is USD 1,440, the Gini coefficient is 31 and it is ranked 146 in the HDI. It has a large informal economy. Illiteracy levels are high. It has a very high proportion of the population working as migrant workers in other countries, making it very dependent on remittances back to Bangladesh. It is believed that the value of remittances could be dramatically increased by increasing the skills levels and qualifications of workers.

A national technical and vocational qualifications framework (NTVQF) is currently under design in Bangladesh, having been initiated in 2008. This is part of a broader programme aimed at strengthening technical vocational education and training, with an emphasis on the introduction of competency-based training. (The ILO is implementing this programme with the Ministry of Education and in coordination with the Ministry of Labour and the Ministry of Overseas Workers, and in partnership with the European Union.) This project is aligned to the national strategy for poverty reduction and is complemented by other donor-supported projects. The initiative follows donor-funded studies and reviews which took place between 2000 and 2007.

Bangladesh has a large and complex technical vocational education and training sector, with many government ministries, private, and non-governmental institutions involved. Various agencies, including different government organizations, currently conduct short-term training courses for 'exporting manpower'. There are few industry-managed training establishments. It is hoped that a single framework for technical vocational education and training will bring coherence to this sector.

Prior reforms have included the formation of a National Council for Skills Development and Training in 1979 and the introduction of National Skills Standards in 1985 under the aegis of this Council. This was intended to ensure industry leadership of the technical vocational education and training sector, but was unsuccessful in part due to the lack of strong mechanisms for industry input. Five qualifications were developed, of which the lowest has been the most offered, followed by those on the two levels above. Although attempts were made through curriculum development processes to consider workplace needs, it was felt that these qualifications had no direct relationship with workplaces, or acceptance in workplaces, or relationship with levels of the workforce.

A draft new framework has been proposed, through the technical assistance of the donor-funded project. The proposed framework for technical and vocational education consists of six levels, with an additional two pre-vocational levels, making it effectively an eight-level framework. There is a loose correspondence between these levels and existing qualifications. New qualifications are under development, with the aim for the framework to be the basis for the development of qualifications and competency standards. The framework includes post-secondary qualifications, up to diploma level. The intention is for the new qualifications to be offered in formal education and training, as well as workplace training, in both the formal and informal economy, and all training provided by public and private organizations, whether officially recognized or not.

New institutions have been proposed, in particular, a National Skills Development Council, to replace the National Council for Skills Development and Training. It is hoped that the new Council will have a higher profile than its predecessor, as it has greater representation from relevant ministries and other stakeholder groups, to ensure that it is more effective. This body will oversee and monitor all skill development initiatives in the country, including the NTVQF, although direct responsibility for the new framework will rest with the Bangladesh Technical Education Board (BTEB). Existing institutions will have their roles changed, including the BTEB, which currently has a broad range of functions, including conducting assessment and awarding certificates for the institutions

that are affiliated to it, which are the main formal providers of technical vocational education and training. A key new role will be the management of processes to develop industry-related competency-standards. Standards development is currently taking place through technical assistance of the ILO project. It is also envisaged that the BTEB will revise its curriculum development processes to link with the emerging network of industry skills councils. It will also acquire additional personnel for its expanded responsibilities, including the establishment of a regional presence through a network of new regional government offices.

There is extensive involvement of government agencies, and less involvement from industry at this point, but attempts are currently being made to involve industries in the processes of defining skills levels and generating competency statements. Processes have been established to involve a range of stakeholders.

Russia

Russia is by far the largest country on earth—17,075,200 km^2, with a population of about 142 million. GNI PPP per capita is USD 15,630, while the Gini coefficient is 37.5. Russia is ranked 71 on the HDI. It has the legacy of a centrally-planned economy.

The Russian NQF is currently under development. The framework has nine proposed levels, based on the eight levels of the EQF plus a level for postdoctoral qualification. The first three levels are supposed to be obtained through training or education, and the hope is that qualifications up to the highest levels can also be obtained through both routes. So far standards are being developed for initial and secondary technical vocational education and training.

The ETF initiated a technical vocational education and training policy reform project in 2005, which included the possible implications of an NQF. A sectoral qualifications framework established in the catering sector had positive evaluations, and led to the creation of the employer-led *National Agency for the Development of Qualifications*, created by the Russian *Union of Industrialists and Entrepreneurs*. An NQF was conceptualized with a broad range of bodies involved, including both the state and private sector. A recommendation document has been produced but has not yet been officially approved. It uses the EQF levels, with the further ninth level for an additional type of doctorate as mentioned above. It is intended to establish a transparent system of descriptors of qualification levels. The intention is to involve employers in the process of developing educational standards and programmes as well as assessment. This is seen as part of ensuring appropriate curricula, but also shifting to a regulatory mode which focuses on outputs instead of inputs. Current proposals include the establishment of 500 new certification centres and institutions to support lifelong learning.

Russia currently has a *Unified System of Occupational Classifications and Information Coding*. This is intended to coordinate three other classification systems: the *Russian Classification of Workers' and Employees' Occupations and Wage Grades*, the *Russian Classification of Occupations*, and the *Single Qualifications Reference Book*. This system falls under the jurisdiction of the Ministry of Health and Social Development. At the same time, there is a Russian Classification of Professions, which deals with educational qualifications. This is the jurisdiction of the Ministry of Education and Science.

One of the aims of the NQF process is to try to bring these sets of documents and issues together, but this has proved difficult and complex so far. For example, bachelor and master have been introduced to the educational classification, but they are not reflected in the classification of labour qualifications. In addition, the documents are in use currently, and are in fact constantly under development, despite the many criticisms which are made about them, and the view that they are outdated and inappropriate. It is hoped that the

creation of an NQF, with a set of level descriptors, will enable the rationalization of these various classification systems, and make the relationships between them clear. At the same time, Russia is trying to fit in with European developments, particularly the Bologna Process.

There are currently various processes leading to the development of an NQF. These processes are not coordinated with each other. There is the process of creating educational and occupational standards, correlated with international standards, driven by the Federal Institute of the Development of Education working with the Russian Union of Industrialists and Entrepreneurs. At the same time, a *Unified System of Classification of Occupational Qualifications* which conforms with sectors of the economy is being developed by the Centre of Development of Occupational Qualifications of the Higher School for Economics. Thirdly, the Institute of Labour and Social Insurance is working with the Ministry of Health and Social Development to develop new elements in the system of occupational qualifications, among which are occupational standards. These processes may be at odds with each other, and an ongoing problem is lack of working relations between the Ministry of Education and Science, and the Ministry of Health and Social Development. The case study describes an impression that the NQF is seen by some stakeholders as imposed or imported from elsewhere.

Chapter 5: Why do countries introduce NQFs?

Despite the considerable differences which can be seen from the summaries above, the 16 countries in the study had similar official reasons for introducing qualifications frameworks, and these are very much in line with the literature discussed in Chapter 3. On paper, official aims of qualifications frameworks are similar, in some cases identical, although with differences of emphasis. What follows is a discussion of the various problems policy makers and stakeholders in the 16 countries hope to solve through the introduction of qualifications frameworks, as well as the more specific goals they have for their frameworks. In all countries in this study, what is referred to as technical vocational education and training, or vocational education and training, or workplace-based training and skills development, was a particular concern.[10] In some instances frameworks are only focused on these sectors, and in others they include (and are driven by) other sectors, but technical vocational education and training and workplace-based learning are still a key focus area.

5.1 Improving the communication of qualification systems

The most general goal of the introduction of a qualifications framework is the creation of a nationally accepted single framework of qualifications, which makes qualifications in the country (or educational sub-sector) easier to understand. This could include improving the communication of existing qualifications as well as reducing its complexity: in other words, trying to avoid duplication and overlap of qualifications while making sure all learning needs are covered. This objective of NQFs is sometimes described as increasing or improving the *transparency* of qualifications systems. However, as the notion of 'transparency' is also used to describe specific goals with regards to individual *qualifications*, the term 'communication' is preferred here.

Most countries have some kind of official grid of qualifications, but many of the countries in the study have come to qualifications frameworks through a view that they are plagued by a 'bewildering proliferation of qualification titles', a 'jungle of qualifications', or poor public understanding of qualifications. They want it to be clearer how different qualifications relate to each other. This issue emerged in nearly all the case studies, with a particularly strong emphasis in Bangladesh, Botswana, Malaysia, Mauritius, the English NVQs, Russia, and Sri Lanka. (It is notable how different these countries are, for example just in terms of population size, and hence the number of institutions offering education and training programmes).

This aim can be seen as a part of improving the communication of national qualifications systems. In Botswana and Mauritius, the role of private and overseas providers is emphasized as causing problems. In Botswana, the problems are described as lack of coordination at national level which causes misunderstandings about qualifications; duplication amongst providers; and lack of clarity of relative value of different qualifications, especially foreign awarded. In Mauritius the problem was primarily seen as one affecting higher education, although the 'jungle of qualifications' was seen as contributing to the low status of technical vocational education and training qualifications.

[10] This does not mean that qualifications frameworks necessarily include a technical vocational education and training focus, as the literature shows many which are higher education focused.

The lack of clear certification pathways was seen as contributing to lack of clarity about the relative value of different qualifications. There was confusion about qualification nomenclature: for example, it was not clear exactly what 'diploma' meant, and what the relationship was between a Higher Diploma and an Advanced Diploma, as these titles were designated by each individual institution, and in some instances based on norms from other countries.

In Sri Lanka, it was argued that the technical vocational education and training sector was historically fragmented, with around 300-odd vocational training centres operating in the country under the management of 11 ministries providing courses of differing quality, using differing levels of training equipment and facilities, differing training approaches, and attempting to meet the different needs of urban and rural youth. The creation of a single national framework was seen as the first step in creating a nationally-managed system, and thus creating a point of convergence, and increasing efficiency. In Australia as well, the vocational education and training sub-framework of the Australian Qualifications Framework was seen as important in creating national coherence.

In some countries (Australia, Malaysia, Mauritius, New Zealand, Russia, South Africa, and Tunisia) creating a single accepted national grid of qualifications is one of the explicit goals of the NQF. In others, the introduction of an NQF is part of an attempt to regulate the use of nomenclature for qualifications, such as regulating what a term like 'diploma' is allowed to mean within the country, and whether or not it can be used in relation to qualifications at different levels. In Malaysia the specific focus was on the creation of a single structure for all higher education qualifications issued by public and private universities and colleges, because the rapid expansion of private provision had led to a multiplication of qualifications, and complex and contested accreditation procedures. Lithuania, Russia, and Tunisia have occupational frameworks which include qualifications, occupational levels, and various other aspects of related labour market regulation. Because these documents attempt to capture the various possible positions and levels in a wide range of sectors of the economy, they tend to be long and elaborate. Countries hope that an NQF will enable a simplification of such frameworks. In Botswana, Sri Lanka, and Tunisia, a single classificatory framework for all qualifications is seen as something that can play a coordinating role for other related reforms.

The idea of a national framework is frequently linked to separating qualifications from institutions. One reason for this type of separation is the desire for individuals to be able to obtain a qualification without having to attend a learning programme at a specific institution; another is to create 'national' qualifications whose value is the same regardless of the institution attended. The idea of separating qualifications from educational institutions was most strongly argued for in South Africa; the case study quotes a policy document which argued that the NQF would "remove the obsession with institutional learning as the measure of a person's worth, because national qualifications will be blind as to where the learning takes place" (Human Sciences Research Council 1995, p. 15).

5.2 Improving the transparency of individual qualifications through learning outcomes

Improving the 'transparency' of individual qualifications is something most countries in the study emphasize. The perceived problem is that current qualifications do not provide sufficient information to employers or to education and training institutions about what the bearer of a qualification knows and can do. The hope is that when each qualification has clearly specified outcomes associated with it, qualifications will be more transparent. This is in turn intended to achieve a range of objectives, discussed below.

5.3 Reducing the 'mismatch' between education and the labour market

In most of the cases in the study, mismatch between educational provision and labour market needs is seen as a major problem (Botswana, Chile, the English NVQs, Lithuania, Mexico, New Zealand, Russia, Sri Lanka, Tunisia, and Turkey). In New Zealand, it was felt that poor information about the skills and abilities of qualification holders contributed to credential inflation, particularly during periods of high unemployment. It was argued that this occurred because credentials tended to serve as simple selection devices rather than indicating exactly what skills potential recruits have obtained and because lack of useful information about the abilities of qualification holders reduced the level of trust employers had in educational qualifications; this in turn, it was argued, led to employers demanding credentials far beyond those that were necessary for particular jobs. In Lithuania, relationships between industry and vocational education and training institutions are described as conflictual, with both sides making accusations about each other.

A key aim of many of the qualifications frameworks is to improve employers' understandings of what qualifications mean. Chile and Mexico, in their development of Labour Competence Frameworks, hoped to create a 'meeting point' between education and training and the workforce. In Tunisia, similarly, it is hoped that the classification of qualifications based on learning outcomes will ensure that training institutions and labour market role players 'speak the same language'. Ensuring that employers trust qualifications, and know what it is that they are getting when they employ a person who holds a particular qualification, is an aim in many of the countries, and the issues are the same as those about transparency discussed above. In particular in higher education in Tunisia, it is felt that historically qualifications have had a rather indirect relationship with the labour market, and were seen as very broad stepping stones or levels of achievement. This is changing with the liberalization of the economy and increased levels of unemployment of higher education graduates (caused by dramatic expansion of higher education without changes in the labour market). Now policy makers believe there is a much stronger desire on the part of employers to know *exactly* what competences bearers of higher education qualifications have acquired. While historically qualifications have always provided this information to some extent (such as, that the bearer is qualified to be a nurse or plumber in a particular country), policy makers in most of the countries in the study hope to achieve far greater levels of specificity. This, it is believed, will assist employers in making employment decisions as well as in training and human resource planning. So, for example, in Chile and Lithuania policy makers hope that outcomes/competencies will support management in companies and institutions to aligning human resources processes and systems.

National qualifications frameworks are seen as a way of ensuring that employers are involved in qualifications design, thus ensuring that qualifications are of the right standard (this was arguably less of a focus in Scotland, and in South Africa the initial framework was designed to represent a broad range of stakeholder interests, and not only employers). In all the countries in the study there is an explicit argument that ensuring that industry representatives drive the process of specifying learning outcomes, competencies, or occupational standards through a qualifications framework will ensure that qualifications are relevant and of high quality. For example, government in England, Wales, and Northern Ireland hoped that because employers 'owned' the new vocational qualifications, they would take responsibility for using them to assess their employees, and would use them in recruitment and placement of employees. In Chile, it was hoped that by involving employers in setting labour competences, the abilities, attitudes, and knowledge required by people to be employed and contribute to the competitiveness of the companies would be identified. Policy makers in Turkey hope that the qualifications framework will promote the acquisition of certificates reflecting possession of knowledge and skills really needed in the labour market. In Mexico, in the second attempt to develop the Labour Competence Framework, very specific indicators have been set in this regard, including that students should need less time to find employment after graduation; that the type of employment

found by students after graduation should be more compatible with their education and training; that there should be less time spent between jobs and more time employed in each job; starting salaries for those assessed as competent should be higher than those without certificates; and employers should be happier with graduates from competence-based training programmes.

In nearly all the countries in the study, many previous attempts had been made to involve employers in education and training, including setting up sub-structures such as Sector Councils to involve industry in setting standards. In addition, many countries describe their technical vocational education and training systems *prior* to the introduction of a qualifications framework as competency-based or based on occupational skills standards. Chile is a striking example. The military government introduced a strong emphasis on individual choice and market models in all aspects of the education and training system. It completely decentralized vocational secondary schools, and expected them to work with local industries in order to develop appropriate competency-based curricula. After democratization, the basic thrust of these reforms remained intact, although there was more emphasis on the regulatory role of the state. The decentralization of vocational schools became seen as a problem—it had not achieved labour market linkages with local industries, but led to a highly diverse and fragmented system. The democratic government introduced a curriculum reform which was national, but also based on labour competencies. This was followed by a GTZ-supported project which again used labour competencies, developing occupational profiles through an analysis of labour market and workplace requirements, in consultation with industry, commerce, trade unions, employers, academic institutions, and public organizations. This was followed by the attempts at developing labour competence frameworks, and most recently, an NQF.

Bangladesh similarly has introduced competency-based curricula, and structures to ensure the involvement of industry in its technical vocational education and training system in prior reforms. In Tunisia the NQF is seen as building on existing competency-based training reforms, while in Sri Lanka, past reforms were seen as unsuccessful, and it is hoped that the NQF will now succeed where they have failed. The case study on Sri Lanka cites several decades of donor-assisted projects, including the Asian Development Bank, the World Bank, the United Nations Development Programme, the GTZ, and the Canadian International Development Agency. It is argued that these reforms introduced some improvements but failed to make technical vocational education and training or tertiary education more responsive to the labour market, or more efficient and effective, partly because they were reflective of the work and technological practices of the 1980s, and were predominantly construction sector-oriented while other emerging and important industrial sectors were not accommodated. It is believed that the introduction of the NVQF, with the specification of visible and comparable outcomes, will now ensure both labour market responsiveness and efficiency and effectiveness.

Nonetheless, nearly all case studies suggest that the lack of employer involvement is a key reason why qualifications do not meet employers' needs. Why the existing systems have failed to ensure industry input is not always clear, although nearly all the case studies cite lack of willingness of industry to participate. The case of Mexico is particularly stark, as the aims for the second version of the Labour Competence are very similar to the goals for the policy which is being replaced (although more specific). Countries seem to believe that the introduction of an NQF will enable them to succeed in involving industry, where in the past they have failed.

Policy makers interviewed in the various countries, and official documents analyzed, argued that curricula were irrelevant or outdated, not meeting learners' or employers' needs. In most countries the main emphasis was on the perception that educational provision did not meet the needs of the labour market. In Botswana a slightly different angle on this was presented, where it was felt that the curricula for different vocational courses did not meet the demands of the economy because some were developed outside

the country for altogether different needs—in other words, that international qualifications may not be relevant to local conditions.

It is difficult to understand the nature and extent of this problem, as research-based evidence for it was not cited by any of the individuals interviewed or accessed by the researchers. This is not to suggest that there are no problems: clearly there are. Many employer representatives interviewed in the case studies reiterated the view expressed by policy makers. What the case studies did not manage to uncover, however, is specific evidence of the specific problems. This is clearly a complex area, as employment patterns are affected by a range of factors. For example, in Lithuania, although all types of education and training are described as inadequate for the purposes of the labour market, from 2001 to 2007 there was a decrease in unemployment for all groups. For bearers of higher and post-secondary qualifications unemployment fell from 8.4 per cent to 2.1 per cent; for those with general upper secondary and vocational education from 19.7 per cent to 5.1 per cent; and for those with vocational lower secondary or primary education from 23.6 per cent to 7.3 per cent. Of course these figures say more about the general state of the labour market than the appropriateness or otherwise of education and training programmes. But they are included to indicate some of the complexities of this issue—as conditions in labour markets often seem to be stronger determinants of employment patterns than the nature of education and training programmes.[11]

In Malaysia industry representatives interviewed felt that many graduates from tertiary education lacked relevant skills, and that the quality of education and training is variable; however, private rates of return for tertiary level qualifications are strong, and staff from universities, colleges, and training sectors said their graduates are readily employed, although employment of humanities graduates is seen as lower, especially by industry. The reputation of providers, as well as linkages with industry at an institutional level, is said to be key in this process, and at higher levels, there is a strong preference for graduates from overseas universities. In addition, many stakeholders interviewed in Malaysia argued that demand for skills below a professional level is not strong, because of what they described as historical approaches of low wage, low skill industries, the presence of immigrants who are prepared to work in these conditions, and the weak regulatory framework for work conditions. In Mauritius employers interviewed prior to the introduction of the NQF were mainly happy with the skills levels of their workforces. In Tunisia, on the other hand, there has been a dramatic increase in enrolments in higher education, with no concomitant increase in job possibilities, and consequently, a dramatic increase in graduate unemployment.

5.4 Credit accumulation and transfer

Improving the transparency of qualifications is hoped to improve possibilities for credit accumulation and transfer. Many of the countries were concerned about the lack of comparability of qualifications from different educational institutions, and NQFs are hoped to be the basis for developing systems of credit accumulation and transfer. For example, in Bangladesh, Botswana, Lithuania, South Africa, and Turkey, policy makers were concerned that qualifications from different providers are differently valued. In Malaysia this was an issue across private and public higher education institutions. Increasing the transparency of qualifications is hoped to improve progression pathways within education and training—across different institutions and geographical areas, and across different sectors of the

[11] See de Moura Castro (2000) and Wolf (2002) for discussion of this problem.

education and training system. This point is mentioned in all case studies, and the term 'seamlessness' is popular in describing the aims of qualifications frameworks.

In the countries where vocational frameworks are being introduced, the focus is obviously not on pathways with the rest of the education system, but only between education and training institutions within technical vocational education and training, as well as, in some instances, between workplace-based training and formal technical vocational education and training provision. In some countries, transfer between school and technical vocational education and training is seen as a focus (Bangladesh and South Africa), while in many others movement between vocational education and higher education (or technical higher education) is the priority (Chile, Lithuania, Scotland, and Sri Lanka). In Chile, Lithuania, and Malaysia, an issue of major concern is the transition between workplace-based training and technical vocational education and training. In Malaysia, for example, the qualifications framework has three separate sectors: for higher education, for vocational and technical education, and for skills. Although they are all placed on a single national framework, there is currently very poor articulation between skills and the rest of the education and training system. The case study suggests that this is partly because the skills qualifications are very low level. It is also suggested that because they are based only on skills standards, they lack theoretical or knowledge basis. A difficulty here is that the qualifications are subject to two sets of demands. On the one hand, they are designed to meet industry needs, and industry seems to be relatively happy with them. On the other hand, they should have relationships with other qualifications, but this does not work well, because of the low levels of qualifications and the lack of theoretical knowledge. This issue is also a serious concern in Lithuania although the language used there is continuing training versus vocational education. In Lithuania there are also problems in the relationships between university and non-university higher education institutions. In many of the countries studied, it is believed that there are unnecessary obstacles for people who want to move from technical vocational education and training to higher education. In many countries creating progression pathways from technical vocational education and training to higher education is seen as a way of increasing the status of the former. In Tunisia aligning secondary education with technical vocational education and training is seen to be a key challenge.

5.5 Recognition of prior learning

One of the major aims for all countries is the recognition of competencies, knowledge, skills, and abilities that have been acquired outside formal education and training systems. Countries hope that qualifications frameworks will provide a basis for recognizing a wide range of learning achievements, whether in education and training or informally at work or in the community. Different countries use different terms, with perhaps the most widely used being recognition of prior learning. All countries see the lack of such recognition as a problem. It is seen as creating inefficiencies in education and training (through forcing learners to complete courses unnecessarily) and creating inefficiencies in the labour market (because employers do not know what skills potential employees have). This is described as leading to serious wastages of skills within economies, as well as exacerbation of inequality.

In some countries the emphasis is on the creation of new systems and mechanisms to recognize competencies (Chile, Mexico, and Turkey) whereas in others, there is more focus on trying to ensure that the systems which are used to recognize competencies on the basis of formal education and training are the *same* as those used to recognize competencies acquired in the workplace or in the course of life (New Zealand, South Africa, and Turkey). However, in Turkey there is the hope that the new system will extend to the formal education and training system. In Malaysia the emphasis is mainly on recognition for access to education, while in Chile, Mexico, and Turkey the emphasis is on recognition of competencies for labour market entry and movement within the labour market. In Turkey in

particular there is an argument that assessment systems need to be created and funded by government, for the benefit of industry. In Lithuania, a key issue is a perceived lack of motivation for adults to learn in the workplace and informally. It is assumed that this is because such learning is not certified, and it is hoped that certifying non-formal learning will encourage people to learn at work.

5.6 Access

It is hoped that increasing the transparency of qualifications, thereby enabling the recognition of prior learning and creating credit transfer and accumulation mechanisms, will make it easier for learners to enter or re-enter education and training. It is in this regard that qualifications frameworks are seen as a key vehicle for increasing access (Australia, Bangladesh, Botswana, New Zealand, Scotland, and South Africa), firstly through recognizing skills and knowledge acquired in the workplace and outside of education and training, and secondly through removing what are seen as unnecessary legal or regulatory blockages between existing types of provision. This is seen as necessary to encourage or enable lifelong learning. Related to access, in Lithuania the NQF is seen as a vehicle to motivate individuals to study.

5.7 Quality assurance systems and new regulatory, assessment, and certification mechanisms

In most of the case studies, NQFs were seen as integral to quality assurance systems. A key hope here is that a qualifications framework can be a point of reference external to education and training institutions that provides the basis for quality assurance, for both self assessment by individual institutions and evaluation by external agencies. This, it is hoped, will lead to user confidence in the system, and, where appropriate, provide the basis for government funding. For example, in Lithuania a qualifications framework is seen as necessary to ensure a systematic approach in designing, providing, and awarding qualifications, which in turn are seen as necessary for effective quality assurance. In most countries, the link between qualifications frameworks and quality assurance is assumed to be through regulatory bodies, which will check up on provision against specified standards. This is then linked to changing assessment, certification, and other regulatory mechanisms and systems.

In some countries (notably Chile and Malaysia) qualifications frameworks (the Labour Competence Framework in the former country) have been introduced as a regulatory response to highly marketized systems. In other cases, notably in Australia, England, Wales, and Northern Ireland, New Zealand, and indirectly in South Africa, qualifications frameworks are seen as part of creating markets in the delivery of education and training. This seems to be an emphasis in the emerging frameworks in Russia, Sri Lanka, and Turkey as well. In Turkey it is emphasized that compelling providers to compete against each other will increase efficiency and quality.

In many countries, there are attempts to use the specification of standards to develop what are seen as more flexible assessment systems. In New Zealand and South Africa strong arguments were made against the use of examinations. Outcomes-based qualifications were seen as a mechanism to enable assessment to be site- and workplace-based, as it was believed that they would ensure that all assessors would assess to the same standard. In Sri Lanka, an emphasis on decentralized assessment is intended to ensure greater flexibility and convenience for applicants. In Turkey there is a very strong notion that the qualifications framework will enable the separation of assessment and provision. Here, the proposal is for the development of an accreditation system for institutions which conduct assessment. It seems paradoxical, though, given the arguments for increasing the role of industry in general, that both Turkey and Lithuania seem to be moving *away* from a

centralized assessment model whereby the Chamber of Industry and Commerce plays a major role in the assessment system.

Linked to reforming how education and training are delivered and regulated are attempts to change governance systems. Consider, for example, the governance of education and training in Malaysia. Schools are under the Ministry of Education. Polytechnics and colleges are publicly owned and administered, under the Ministry for Higher Education. Higher education has public universities as well as a large number of private universities and colleges, including branches of overseas universities, and a number of internationally sponsored institutes, also under the Ministry for Higher Education, but through a different division. The Skills system is under the Ministry of Human Resource Development. Respondents in the case study stated that there were considerable overlapping responsibilities of different ministries and agencies for qualifications, and little coordination amongst them. The NQF was introduced primarily to attempt to change these relationships.

Some of the countries also seem to want to change certification systems. This issue is most clearly addressed in the proposed system in Turkey, where institutions will have to apply for accreditation in order to issue certificates. Interestingly, the countries in the study start from very different points with regard to certification, ranging from very centralized systems, such as in Mexico where all certificates are processed through the Ministry of Education, to very decentralized ones, such as in Botswana, where all certificates are issued by individual educational institutions. Certification is the one issue which is least directly addressed in official statements of NQF aims. This is interesting because it is clearly an issue that policy makers want to tackle, and in most instances, they want to de-link qualifications and assessment from providing institutions, which implies the need for new certification mechanisms.

5.8 Reforming delivery of education and training

The changes to assessment, certification, and regulatory mechanisms which are associated with NQFs are seen in many of the countries in the study as part of reforming how education and training are delivered. Increasing the flexibility of education and training, and shifting to what is described as ‘demand-led’ systems are key desires here.

In many of the countries, policy makers suggested that centrally-specified curricula, centralized state delivery mechanisms, and institution-linked qualifications all prevent education and training from meeting the needs of the economy. In relation to the management and delivery of education and training, policy makers argued that educational institutions are rigid and inflexible, with rigid and unreasonable entrance requirements, and inflexibility in terms of how courses are offered. Inflexibility may refer to access criteria (Bangladesh, Botswana) or lack of responsiveness to short-term needs of industry (Mexico, Russia, Turkey) or it may refer to the approaches delivery of education and training which make it difficult for working people to attend (Lithuania). Many of the countries feel that the traditional notion of qualifications linked to specific institutions, specific learning programmes, and specific durations of study, limit flexibility. Thus, ‘time serving’ is quoted as a problem to be solved by qualifications frameworks in most of the studies. Related to this is a desire in many countries to shift to what is described as ‘learner-centered’ pedagogy, which countries also believe can be achieved through the introduction of qualifications frameworks, perhaps through outcomes or competency statements. This is seen as linked, in certain countries, to centralized delivery systems, and decentralization is seen as a solution. In addition, governments that run centralized training systems seem to feel that they do not have sufficient control over what actually happens in training centres. This paradox is seen as one which can be solved through a framework of outcomes or competency-based qualifications, because, it is believed that this will offer a mechanism for

decentralizing provision, increasing competition, *and* ensuring accountability of providers for funds that are given to them (by governments, industry, or individual students).

According to the case study on Turkey, policy makers, specifically in the Vocational Qualifications Authority, believe that industry does not always need students to complete full technical vocational education and training programmes. Often, it is argued, industry is in urgent need of qualified people and cannot wait for them to complete their formal education and training; it is claimed that in many cases the needed qualifications can be acquired through short-term courses. This time (and quality) gap between the world of work requirements and the education and training system is therefore an important area in which it is hoped the NQF can shape change. This issue can be seen in Australia, Botswana, New Zealand, and South Africa, where NQFs were designed to enable learners to gain credit for parts of qualifications (referred to as 'skills sets' in Australia and 'unit standards' in the other three countries).

5.9 Improving parity of esteem for TVET and skills qualifications

In all countries in the study, to differing degrees, it was seen as a problem that technical vocational education and training (TVET), workplace-based or skills qualifications tend to have a lower status than school and university qualifications. In all countries, the hope was that a clearer understanding of what the bearer of a qualification is competent to do (the transparency aim discussed above) will raise the status of qualifications, particularly of vocational and skills-based qualifications. This is in most cases based on a notion (sometimes implicit) that the public perceptions about qualifications are irrational, and due to prejudice, and therefore, can be changed through greater transparency. The low status of TVET is a concern in nearly all the countries, where it is seen as a fall-back option for learners for whom all other routes have been exhausted. In Lithuania, it is argued that workplace-based training is even more stigmatized than formal TVET. Countries hope to 'attract' students to TVET (Bangladesh, the English NVQs, Lithuania, Scotland, and South Africa) by placing vocational qualifications on a framework, thus demonstrating their equivalence to other, more desired qualifications. In Malaysia stakeholders hope that the NQF can create parity of esteem between academic and vocational qualifications and make the skills sector a viable alternative route to higher education. Similarly, in Lithuania, it is hoped that the NQF will raise the status of TVET, by showing that the knowledge and skills are on equal terms with academic education. This, in turn, it is hoped, will help to get more motivated and skillful young people to choose TVET.

5.10 Increasing private sector financial contribution, especially for TVET and skills training

Many of the case studies (with emphases in Bangladesh, Botswana, Chile, Lithuania, and South Africa) cited systemic and protracted lack of funding for TVET as a key problem. Some of the countries (Bangladesh, New Zealand, and Russia) explicitly hope that the introduction of a qualifications framework will encourage industry to invest in education and training, thus reducing expectations of government. The idea seems to be that because the system involves industry, industry will be more interested in investing. In New Zealand there was also considerable focus on increasing individual user fees, and this seems to be the case in the emerging framework in Russia as well.

5.11 International recognition and labour mobility

A major reason for introducing qualifications frameworks is countries' attempts to relate to international systems, and to participate within what are described as globalized labour markets (although of course the latter notion is highly contested from various perspectives in the literature of political economy and economics). This becomes a self-perpetuating policy cycle: as more countries have developed frameworks, and as regional frameworks such as the EQF have come into existence, policy makers seem to feel under increasing pressure to have a framework in order for their national qualifications to fit in internationally. Even the 'early starters' had a strong sense that a qualifications framework will make it easier to indicate its equivalence to international qualifications where this was required. This was a particularly strong feature of the rationale for the NQF in Mauritius, where there are large numbers of people that migrate, particularly to Australia, Canada, and Europe, and according to the case study, reportedly large numbers of people that migrate to Mauritius. However, it is also a strong rationale in Bangladesh, with its large number of migrant workers sending remittances home. Remittances are also a concern in Sri Lanka and Tunisia. In Botswana it is believed by policy makers that Zimbabwean workers in the construction industry are hired instead of Botswana workers because their qualifications are seen as better (although the case study also acknowledges that they are prepared to work for lower wages). All European countries in the study are attempting to fit their qualifications to the EQF, and a national framework is seen as a key step in this process. Many non-European countries are also hoping to align their systems with the EQF; Chile and Tunisia stand out here. A less explicitly mentioned issue, but one which nonetheless appears in some of the studies, particularly Australia, Malaysia, and New Zealand, is the desire to earn foreign currency by attracting foreign students (who in most countries pay much higher fees than local students). International benchmarking is seen as an important part of this process.

The notion of a nationally accepted framework is in many cases linked to other aims discussed below, such as improving transparency, the creation of a set of national standards (as in Bangladesh, Botswana, Lithuania, Russia, South Africa, Sri Lanka, Tunisia, and Turkey), or standardizing the use of academic load or credits in defining qualifications (as in Malaysia). In the attempt to resolve these and other issues, qualifications frameworks may become part of the regulatory frameworks that increasingly control movements of individuals.

5.12 Broader goals

The literature on NQFs generally suggests that countries hope that by achieving the above objectives, NQFs will improve social cohesion and assist people who have been marginalized to obtain qualifications or gain access to educational programmes, as well as promoting access, and motivating learners to get more skills by certification, thereby raising education and training levels and strengthening international competitiveness, and enhancing lifelong learning. These broader goals were mentioned in many of the countries in the current study. Perhaps the strongest example here is South Africa, which had very ambitious hopes for its qualifications framework, regarding it as a key transformative instrument to enable dramatic change in education and training as well as in the labour market and the economy and society more broadly.

Many of the countries come to qualifications frameworks through an analysis of skills shortages. This is linked to the notion of relevance discussed above: the idea is that education and training systems are not producing the appropriate levels of skill in the workforce. So, for example, in Malaysia industry representatives argued that most workforce entrants are people who either have no post-school qualifications, or have basic level skills qualifications. Similarly in Chile a high proportion of the adult labour force has few years of schooling and no qualifications. An explicit goal of the *Chile Qualifies*

Programme, which included the further development of the fledgling Labour Competence Framework, was developing 'human capital'. Most of the countries in the study hope that a qualifications framework can play a role in raising skills levels in their countries.

In most of the countries, TVET reform is seen as key to social and economic reform. Youth unemployment is a particular focus. Increasing the relevance of TVET to industry as discussed in the previous section is obviously a key issue here. Reforming TVET is linked with problems in school systems. For example in Mauritius, low levels of throughput in schooling are seen as a major reason for improving TVET to provide an alternative progression pathway for young people. In many of the countries the poor quality of private provision was cited as a problem, and it was argued that private providers did not have the resources and long-term perspective required; in Chile this problem was described as particularly stark given the high levels of marketization of the education and training system.

Paradoxically, although NQFs are supposed to be policies which allow industry to lead TVET, in many instances governments are not happy with industries' approach to training, or the types of investments that are made, and hope that NQFs will assist them to shift existing practices within industries. They want to encourage employers to invest in education and training (thus reducing strains on public spending), but they also want to shape the nature of industry and employment in their country, which they believe they can do through shaping the type and level of skills acquired by the workforce or potential workforce. In Mauritius, Malaysia, and Tunisia there is a strong focus on building a 'knowledge economy', understood as the idea that economic value will increasingly come from knowledge-intensive work, and less from physical production. In Tunisia policy makers hope that an NQF can be part of a cycle of creating better jobs, and ensuring that individuals have higher levels of skills for these jobs. These countries hope that an NQF can facilitate this through improving the culture of training and raising standards of education and training. It is thus hoped that NQFs will increase the productivity and competitiveness of industry through a flexible and globally employable workforce. Some of the countries specifically target increasing their share of the global labour market through better-qualified workers (Bangladesh, Sri Lanka, and Tunisia). It is also hoped in the case of Sri Lanka that the NQF will enable greater alignment to national development goals.

Some countries explicitly mention the reduction of unemployment and poverty as goals for their NQFs (e.g. Botswana), while others have broad statements of socio-economic goals (e.g. South Africa). As already discussed, most countries link NQFs to increasing access, and hope that in this way the framework can contribute to greater social inclusion. In South Africa this was specifically linked to the redress of past discrimination. Policy makers in Bangladesh hope the framework can improve chances for upward economic and social mobility, and in Botswana it is hoped that the qualifications framework will reduce unemployment by equipping learners with relevant skills. In Mexico the original Labour Competence Framework, as well as the broader project through which it was introduced, hoped to influence employment and employability of people, the levels of productivity and competitiveness, and the rational use of the resources invested in human capital development. In South Africa one of the explicit goals of the NQF is to contribute to the full personal development of each learner and the social and economic development of the nation at large.

An ambitious general goal of NQFs, but also one that is mentioned explicitly by all countries in the current study, is the idea of promoting lifelong learning. For example, the Scottish Credit and Qualifications Framework aims "to help people of all ages and circumstances to access appropriate education and training over their lifetime to fulfil their personal, social and economic potential". In some cases (such as Botswana, Chile, and Tunisia) lifelong learning is simply specified as a general aim of the qualifications framework (possibly indicating a more rhetorical/symbolic approach to this issue). In others, lifelong learning is linked more specifically to the other aims of qualifications

frameworks. For example, in Russia and Malaysia, enabling learners to transfer from one site or sector of learning to another is seen as enabling lifelong learning. In other countries, is seen as the key to enabling lifelong learning, as it is believed that in this way learners will be able to access education and training more easily.

5.13 Differences in goals for NQFs

There are some important differences revealed in the case studies in terms of what countries aim to achieve through the introduction of an NQF.

The case studies in general do not make a clear distinction between the operational objectives and wider objectives. However, there are differences of emphasis in some of the countries. For example, the case study on the English NVQs suggests that a key driver for their introduction was an attempt by the government to achieve greater control over public expenditure by colleges and Awarding Bodies and to shift power over the provision of TVET towards employers, reducing power of trade unions over apprenticeships. In Botswana and Sri Lanka, a focus on provider accountability is very evident, where developing better mechanisms for controlling government expenditure in TVET institutions seems to be a driving goal of government. In Turkey, separating provision from assessment seems to be a key issue. Achieving modularization is a particular focus in Lithuania, as is attempting to develop social dialogue and strengthen the capacity and role of various stakeholders. A driving force in Malaysia has been to extend the existing higher education quality assurance model, which was implemented in the private sector, to the public sector.

Another way of understanding the difference in goals of the various countries is in terms of their relative ambition. There are significant distinctions in emphasis in terms of what is expected of qualifications frameworks, perhaps linked to different expectations about how much specificity can be provided through qualification documentation. Although the term ‘transparency’ is used in all the countries in the study, in some instances, the focus is more on the transparency of the qualification system as a whole—what has been described above as the communication function of qualifications systems. For example in Scotland, the emphasis seems to be on improving understandings of the various qualifications on offer. Mauritius talks similarly about qualifications being readily understood by the public, while Malaysia emphasizes improving public understanding of qualifications, establishing greater clarity of information about qualifications, and facilitating evaluation and comparison of qualifications. In other words, the development of a simplified framework of qualifications with a nationally agreed nomenclature is supposed to make it easier for employers (and others) to understand which qualification fits where, thus to some extent improving their understanding of graduates. These countries seem less ambitious with regard to what a qualifications framework can achieve in this regard.

In other countries, stronger claims are made, and there are greater expectations from qualifications frameworks with regard to making individual qualifications transparent. The Labour Competence Framework originally introduced in Mexico, for example, hoped to provide greater information to employers by providing individuals with qualifications certifying what they were competent to do, and to ensure transparency between educational and training institutions and the productive sectors of the economy. Similarly, in the original NQFs in New Zealand and South Africa, and in Bangladesh, Botswana, Sri Lanka, and Turkey strong claims are made about the role of learning outcomes in *ensuring* ‘transparency’. Similarly, the New Zealand Qualifications Authority proposed providing all learners with an individual record of their learning, which would show *clearly* what learners had achieved and could do. In Lithuania it is hoped that standards can ensure coordination between education and the labour market, thereby enhancing the transparency of qualifications (access to processes of designing, provision, and recognition) as well as information for individuals about the content of qualifications as well as pathways.

These differences can be understood in relation to some of the typologies of qualifications frameworks proposed by researchers in this area, mentioned in Chapter 3. For example, Raffe (2009c) distinguishes between **communications frameworks,** which takes the existing education and training system as a starting point, aiming to make it more transparent and easier to understand; a **reforming framework**, which takes the existing system as its starting point but aims to improve it in specific ways such as by enhancing quality, increasing consistency, filling gaps in provision or increasing accountability; and a **transformational framework,** which takes a proposed future system as its starting point and defines the outcomes-based qualifications it would like to see in such a system, without explicit reference to existing provision.

Another difference is that some countries tried to use NQFs to create a break with previous policies and systems (for example, New Zealand and South Africa) while others have focused on more incremental reform, with Scotland being the most quoted example in this regard. In some of the countries, NQFs are described as aiming to build on previous reforms which seem to be generally regarded as successful (for example, the previous competency-based training reform in Tunisia), whereas in many others, they are attempting to introduce a new reform because previous reforms are seen as unsuccessful (such as in Bangladesh and Sri Lanka).

A final difference worth pointing out is that some countries aim to develop frameworks for specific economic sectors which are identified as key to the economy, with the long-term aim of a national framework. Tunisia and Turkey are described as adopting this approach. Other countries aim for more comprehensive reform in the short-term—for example, New Zealand and South Africa.

5.14 International influences and the development of NQFs

Based on these case studies as well as the broader literature review, policy borrowing and international organizations seem to be at least in part playing a role in the international spread of this discourse. There are important differences between the very early starters, which developed their frameworks as a result of internal reforms, and the more recent frameworks, which are much more influenced by international models and pressure. The only two frameworks in which policy borrowing is not mentioned as an explicit factor in the countries' decision to adopt a framework as well as in its design, are the first qualifications frameworks, Scotland, and the English NVQs. These two frameworks have been particularly influential in other countries, with the Scottish framework offering encouragement about the possibilities of an NQF, and the English NVQs being used more directly as a model. Australia, Botswana, Chile, Mexico, South Africa, and Sri Lanka were explicitly influenced by the NVQs in England, in terms of the specific approach to designing competency-based qualifications. Most countries mention the Scottish framework as influential, and some have used its level descriptors as a basis for their own; in addition the Scottish Qualifications Authority has played an advisory role (for example in Chile and Mauritius).

As frameworks have emerged, they have also started to influence other countries. The New Zealand NQF has been influential in Botswana, South Africa, and Sri Lanka, and in some instances unit standards from New Zealand were adapted for local use. While the Australian NQF *per se* has not been particularly influential, the Australian competency-based training model has played a major role in the development of qualifications frameworks in many countries, including Bangladesh, Chile, Lithuania, South Africa, and Sri Lanka. The South African NQF has been influential in Botswana and Mauritius. Policy documents relating to the qualifications framework in Bangladesh suggest that its designers drew on models being developed in the Philippines, Sri Lanka, and Vanuatu.

Many of the newer qualifications frameworks explicitly describe influences from the EQF. In some cases, such as Bangladesh, Lithuania, Russia, and Turkey, level descriptors were based on or directly copied EQF levels. European countries are particularly influenced by the EQF, but the Bologna Process is also a driving force, more broadly than Europe, as it seems to be a key factor influencing current developments towards an NQF in Chile, and has played a major role in reform of higher education in Tunisia.

In both Lithuania and Russia some stakeholders, particularly in educational institutions, were quoted as seeing NQFs as 'yet another foreign reform', and something imposed on the country from the outside. Nonetheless, the experts involved in the design of the NQF in Lithuania insist that it was designed according to their needs, and not according to international models, nor responding to international drivers.

Although Malaysia explicitly considered models of NQFs in other countries (Australia, New Zealand, Scotland, England and Wales), it seems of all the countries in the study (other than the two initial cases) to be the least directly influenced by policy borrowing.

Donor and development agencies seem to play important roles. For example, according to the case study the idea of an NQF was not known in Bangladesh prior to its introduction through a donor-designed and ILO-implemented project. The role of the ETF is strongly mentioned as an influencing factor in Russia and Tunisia. The GTZ is a particularly interesting case, given that competency-based training is not a feature of German technical vocational education and training, but GTZ is described as supporting competency-based training reforms in Botswana, Chile, and Sri Lanka, and has been involved in developing the new framework for trades and occupational qualifications in South Africa. World Bank loans funded the development of the Labour Competence Framework in Mexico and an initial competency-based reform for the construction sector in Sri Lanka (in both cases drawing on the English NVQ model). The European Social Fund sponsored the development of the NQF in Lithuania. The Asian Development Bank Funding for proposed reforms in the technical vocational education and training sector incorporating the establishment of an NVQ framework is described as an important external impetus in Sri Lanka, and the report on Sri Lanka mentions that the Asian Development Bank has funded similar work in Laos, Thailand, Viet Nam, and other Asian countries. European Commission funds were the major source of the development and initial implementation of the South African NQF. The OECD is seen as particularly influential in Chile. Some of the countries cite the role of consultants from specific countries suggesting the use of their models; for example, an Australian consultancy proposed that the Australian model could work in Chile. The Tunisian case study describes the role of the European Union, World Bank, and French aid in the development of a competency-based vocational training system. Nearly all the developing or middle-income countries in the study (but most noticeably Bangladesh and Sri Lanka) have long lists of donor organizations which have played similar roles in supporting the reform of technical vocational education and training, with a particular focus on competency-based education. All of this is consistent with what was found in the broader literature on qualifications frameworks, discussed in Chapter 3, and considered again in Chapter 9.

Chapter 6: NQF design

What kinds of structures and institutions are created to establish NQFs? Are they new structures, or are existing organizations tasked with new responsibilities? What are the different models of NQFs and how do countries choose among them? What are the links between the goals listed for qualifications frameworks and the ways in which they are being designed? This research hoped to understand the impact of NQFs, but was faced with the fact that many frameworks were in the very early stages of development. In these cases, researchers were asked to get policy makers to explain *how* the NQF was going to achieve its objectives, as well as what kinds of indicators they would use for success, and what their systems for monitoring and evaluation would be. As shown in the country summaries in Chapter 4, countries appear to be doing rather different things under the name NQF or competence framework. However, Chapter 5, *Why do countries introduce NQFs?* suggests that the goals and aspirations across the countries are rather similar. How can this apparent contradiction be understood? The following section explores how frameworks have been designed in the different countries, looking at the institutional arrangements as well as the design of the actual frameworks.

6.1 Key NQF structures, institutions, and systems

In many of the countries NQFs are introduced with and through the creation of new institutions, although in some, existing institutions have developed NQFs, and in some, existing institutions are given new roles in order to implement NQFs. In some instances new institutions are built through old institutions, which means that they have existing institutional capacity, institutional memory, and hopefully, trust and credibility in the countries. The creation of new institutions is sometimes linked to attempts to shift control of qualifications away from educational institutions, but may also be linked to the fact that previous state institutions are not seen as successful, or simply that new functions are being introduced. Involving stakeholders and creating social dialogue is described as important in some of the studies, and new structures may be part of attempts to achieve these goals.

Qualifications Authorities

Many, but not all, of the countries created new Qualifications Authorities to design and/or implement and manage qualifications frameworks. They vary substantially in their extent in terms of operations, size, and capacity.

Malaysia, Mauritius, and Scotland have organizations called ‘qualifications authorities’ whose authority does not extend to the whole education and training system. The Scottish Qualifications Authority covers most education and training other than higher education. The qualifications authorities in Malaysia and Mauritius have a sectoral focus. In Malaysia, the Malaysian Qualifications Authority handles higher education as well as technical vocational education and training but not the skills qualifications. It is also responsible for quality assurance of higher education and technical vocational education and training. According to the case study, it is staffed primarily by people with higher education expertise and interests, and is focused on the higher education sector. Skills are under the Ministry of Human Resources Development, and formally governed by a National Vocational Training Council. This is a tripartite body with an industry representative as the chair, and it formally accredits all providers of skills qualifications. The qualifications are standards-based. For a skills qualification to be included in the overall register of qualifications attached to the Malaysian Qualifications Framework, it must be accredited through this system. In Mauritius, the Mauritian Qualifications Authority has some role with regard to the framework as a whole (mainly in relation to level descriptors), but its powers are basically in overseeing the development of outcomes-

based vocational qualifications, and accrediting technical vocational education and training providers. The Scottish Qualifications Authority is primarily a regulatory and awarding body. It is responsible for regulating school qualifications, the qualifications from mainstream college provision, and all Scottish Vocational Qualifications. It is responsible for overseeing qualifications, curriculum, and assessment in most secondary education and technical vocational education and training. This Authority is one of the partners in the development of the Scottish qualifications framework, and predated the framework. The framework itself does not have a large institutional bureaucracy; instead, it has a Quality Committee which is responsible for maintaining the Scottish Credit and Qualifications Framework guidelines, ensuring consistency in the process and criteria for admitting qualifications and learning to the framework, and aligning the SCQF with other national and international frameworks.

In Russia a Qualifications Authority was created, but it is not clear what its scope of authority is, or how it relates to other relevant authorities. In Botswana, a statutory authority was created, the Botswana Training Authority, through a Vocational Training Act in 1998. It was given the mandate to develop a framework and coordinate training. The Botswana Training Authority registers providers. Certification happens through training providers, and not the Botswana Training Authority.

In Turkey a Vocational Qualifications Authority has been created to oversee standards and qualifications development, testing and certification, and accreditation. This is envisaged to take place through a system of delegating work in these three areas to specific institutions and organizations. However, while the Qualifications Authority is primarily responsible for authorizing institutions to develop standards and qualifications, it is intended that the authorization of testing and assessment will be done *both* by the Qualifications Authority and another agency, the Turkish Accreditation Agency. This is discussed further on under accreditation arrangements. In Chile there is a new structure which is intended to include the Ministry of Labour, the Ministry of Economy, the Ministry of Education, the Workers' Central Union, and the employers' organizations.

In Tunisia the NQF governance is through a Council on Human Resource Development. The Ministry in charge of vocational training remains responsible for the standards of training, assessment, and certification. In Bangladesh, whilst there is no plan to introduce a new qualifications authority, the legislation of the Bangladesh Technical Education Board will be amended to explicitly refer to their role and responsibilities in relation to the NTVQF.

Sri Lanka is one of the few countries not to have created new structures, although the functions of existing organizations have changed. The existing Tertiary and Vocational Education Commission, the main statutory body in the technical vocational education and training system, with responsibility for registering institutions, has been given the role of managing the NVQF.

Structures to design competency standards or outcomes-based qualifications

In many of the countries, new structures have been created to develop competency standards or outcomes-based qualifications. Mainly this has been for technical vocational education and training qualifications, although in South Africa new stakeholder-based structures were created to design *all* qualifications. A key focus in all of these countries has been the attempt to get industry to lead these processes, as the point of this move is to create industry-specified standards which are not linked to specific educational institutions or curricula. Some countries have a greater emphasis on contractualization—government agencies or even a non-government agency (as in the case of Chile) contract organizations or institutions to develop standards. Other countries have a more centralized process where

qualifications authorities or government agencies set up representative structures or task teams for this process, although even here, in practice much of the work is contracted to consultants, and the stakeholders tend to play a ratifying role. Structures with names such as National Industry Advisory Councils (Sri Lanka), Industry Skills Councils (Bangladesh), or Industry Training Advisory Committees (Mauritius) have been established in most of the countries (in some instances, replacing similar structures which are seen to have not functioned well). In other countries (e.g. Botswana and South Africa) more temporary structures were created, envisaged not to have a life beyond the design and development of specific qualifications and unit standards.

South Africa created 12 National Standards Bodies—stakeholder-based bodies, which were given responsibility for overseeing qualifications and unit standards. Under each National Standards Body a large number of Standards Generating Bodies were created. The Standards Generating Bodies were comprised of representatives of experts and interest groups.

In Turkey one of the two key functional departments of the Vocational Qualification Authority is the *Department of Occupational Standards*. This department is responsible for deciding on methods for Occupational Standard development, and for monitoring of organizations accredited for developing occupational standards. The development of standards will be sub-contracted to institutions which could include formal and non-formal training institutions, authorized certification institutions, or industry organizations and institutions who conduct personnel certification. The idea is for standards to be based on job requirements. In Lithuania too it seems as if a sub-contracting approach may be adopted.

In Mexico technical groups of expert workers and technicians were established by the National Council for Standardization and Certification of Labour Competences (CONOCER). In a fairly similar model, Bangladesh is attempting to implement what is described as the UK/Australian approach to competency-based training, where learning outcomes are developed by industry bodies based on the functional analysis of occupations or jobs. The curriculum section of the Bangladesh Technical Education Board will develop learning and assessment materials, which will require endorsement by the new Industry Skills Councils. In Sri Lanka the process is a government-led one, with attempts to involve industry. Qualifications are developed by a team of trainers and industry specialists who have undergone special training in the specified techniques and the documentation systems.

Accreditation, assessment, and certification arrangements

As discussed in Chapter 5, in many of the countries the NQF is seen as part of improving the delivery of education and training through a greater emphasis on accreditation mechanisms and processes. This is often linked to proposed changes in assessment systems. The hope is that the outcomes-based qualifications or competency standards will be a benchmark, against which institutions conducting assessment or providing education and training can be contracted and evaluated or quality assured. NQFs are also seen as a tool to change regulatory functions and relationships with regard to quality assurance and assessment. For example, in Mauritius, the Industrial and Vocational Training Board (IVTB) was both a state training provider and a quality assurer of private provision. The Mauritian Qualifications Authority was introduced partially to remove the latter role from the IVTB.

The Turkish NQF is being created through a double accreditation mechanism. The Vocational Qualifications Authority will conduct accreditation of institutions that want to teach, assess, or issue certificates. But institutions will also have to be accredited by the Turkish Accreditation Agency, or by accreditation institutions that have multilateral

recognition agreements by the European Accreditation Association in order to be eligible for the Vocational Qualifications Authority authorization process. The Turkish Accreditation Agency is a public entity with administrative and financial autonomy and it is a related organization of the Prime Ministry. It started its operations in 2000 and conducts accreditation of laboratories, accreditation of certification agencies, accreditation of personnel certification agencies, and accreditation for public and private enterprises. It is hoped that this 'double' filtering will increase quality and recognition of certificates. Informal communications between the Vocational Qualifications Authority and the Turkish Accreditation Agency try to build common understanding.

In Turkey and Lithuania, assessment as a function is envisaged as being handled through the accreditation of institutions. Separating assessment from teaching and training through accreditation systems is a major focus of the Turkish NQF. Nonetheless, there still appears to be centralized mechanisms for establishing test item banks, for the supervision of testing and certification activities, and for the development and update of test item banks. Interestingly, in Turkey and Lithuania, the move towards an accreditation-based system involved a move away from existing industry-led systems. In both these countries, Chambers of Trades and Industry currently have considerable roles with regard to assessment and certification. In the envisaged accreditation-based systems, these institutions would compete alongside others to obtain accreditation to conduct assessment.

In Sri Lanka there is more of an emphasis on using an NQF to improve accountability of state providers. Visible and comparable outcomes are seen to be the key mechanism in this regard. It is believed that this will make the technical vocational education and training system more resilient and managed by objective measures and fact-led decision-making. Assessment is centralized in the sense that instruments are centrally-developed by one of two national institutions, but it will be conducted by individual assessors, who will be trained, assessed, and registered.

In some countries accreditation and quality assurance mechanisms are not based on outcomes-based qualifications or competency standards, and have a far greater focus on more traditional aspects, which have come to be referred to as 'inputs', such as curricula and duration, qualification of staff, research outputs, and so on. This is the case in most countries with regard to higher education, and can be seen in Malaysia, where the NQF is higher education dominated, and the implementation of the NQF has been primarily through the accreditation and quality assurance of higher education. A key focus of the NQF and the creation of the Malaysian Qualifications Authority has been the extension of the existing quality assurance, which was only aimed at private provision, to all higher education institutions. After the liberal economic reforms of the 1980s, a huge private sector sprung up, which was very unregulated, and had many small providers with minimal facilities and unqualified staff. So quality assurance and accreditation were introduced. However, poor quality has also been perceived to be a problem in the state sector. In addition, industry and the public sector have favoured foreign qualifications, which has been both symptomatic of poor quality and exacerbated it. Thus, the quality assurance regime was later extended to the public sector. As is increasingly the case in many countries, higher education is also an 'export' good, in the sense that it brings in money, through higher fees for foreign students.

Some countries emphasize the role of accreditation mechanisms in 'opening up the market'. For example, in Mauritius it was argued that accreditation against NQF qualifications will enable a larger number of providers to take responsibility for provision and assessment. Australia, England (with regard to the NVQs), and New Zealand all had an explicit focus of increasing marketization of their technical vocational education and training systems. In Russia there is an emphasis on what is called the 'module-competitive' approach, where competition is increased through providers being contracted to provide modules against standards. In Turkey it is argued that competition is seen as necessary to improve quality. On the other hand, there are also concerns about marketized systems. In

Chile and Lithuania it is argued that competition amongst providers is unhealthy and counterproductive. In Chile, the market-based system is seen as restricting access, and producing poor quality, as private providers are unable to build and develop the technological base necessary for technical vocational education and training provision. In Malaysia and Chile, NQFs were seen more as tools to regulate existing markets. In both cases markets were seen as leading to uneven quality.

The issuing of certificates should be a key issue in relation to qualifications. Surprisingly, with a couple of exceptions, most of the case studies were not able to provide much information in this regard. It seems as if it is an issue which has not been the focus of policy attention in many of the newer NQFs. This could be because existing certification arrangements are going to continue. Some of the older NQFs do seem to indicate evidence of this—in Mauritius, for example, the Mauritius Examinations Syndicate has continued to conduct assessment and issue certificates for most qualifications outside of higher education, including vocational qualifications. In Tunisia, certification currently happens through ministries, with separate systems for higher education and technical vocational education and training, and this is likely to continue. This, though, raises interesting questions about how NQFs are supposed to function, and the nature of change that they are intended (and able) to introduce. Unfortunately, this is not an issue which can be explored here, but could be a useful focus for future research.

6.2 NQF design features

A nationally accepted framework

There is clearly debate and different perspectives about what counts as an NQF, and this issue is given considerable consideration at the end of this report. However, as discussed in Chapter 5, the most basic aim of creating a qualifications framework is to have a nationally accepted framework or grid of levels and/or qualifications and qualification types, sometimes for all qualifications and sometimes for specific sectors. Differences in terminology and the configuration of education and training systems make classification of the scope of the frameworks in the study difficult. Bangladesh and Botswana, for example, call their frameworks vocational, but technical qualifications at higher levels are not included. The vocational sector of the Malaysian framework is specifically aimed at polytechnics and colleges, and includes technical and vocational qualifications, but skills qualifications have their own separate sub-framework. Lithuania and Russia are officially discussing and designing comprehensive frameworks (but excluding schools), but the case studies reflect policy attention being focused on technical vocational education and training.[12] The framework in Turkey is also intended to be comprehensive but is limited to vocational qualifications and possibly even workplace-based in practice. The NQF in Malaysia is interesting as it is higher education dominated. The case study argues that the main reason school qualifications were not included in the NQF is that it has been driven from the Ministry of Higher Education. There is, though, the intention to create more coherence between the different systems.

The exclusively vocational focus of some of the qualifications frameworks in this study (Bangladesh, Botswana, Chile, the English NVQs, Mexico, Sri Lanka, and Tunisia) is

[12] It may well be the case that there is also considerable attention on higher education related to the Bologna Process, but it was not captured in the current studies; this suggests that at the least, qualifications reforms in these different sectors seem to be happening through different processes.

interesting given that other research (for example, Cedefop, 2009a) describes a trend towards the development of comprehensive NQFs in all European countries.

The two design features which are seen as most central in most of the countries are level descriptors and learning outcomes.

Level descriptors

Level descriptors are described in most countries in the study as *the* crucial mechanism to achieve the claims made about qualifications frameworks, with the possible exceptions of Australia, where there have been none, although descriptors are now being introduced, Botswana and Mauritius, where it seemed that there was less emphasis on the role of the descriptors, and in the competence frameworks in Chile, and Mexico, where there was very little mention of descriptors. Level descriptors are seen as a guide for clarifying equivalence and rationalizing qualifications systems. They are also seen as a mechanism to increase transparency of qualifications systems, because they try to provide broad information about skills, abilities, and possession/mastery of knowledge areas, which should apply to all qualifications which are pegged at a specific level of a qualifications framework. They are also seen as the mechanism which will ensure that qualifications are broadly 'comparable', and that equivalent qualifications, which are currently not viewed as equivalent, will be recognized as such.

For example, in Lithuania it is hoped that level descriptors can provide instruments to reference and compare qualifications, for the purposes of human resource management and development. In Russia, it is hoped that level descriptors will be an important mechanism to simplify the existing frameworks for occupations. They are seen as a way of ensuring comparability of qualifications and providing for new transition routes from education and training to work. They are also seen as the basis for new systems of assessment. Tunisia has similar intentions: it is hoped that level descriptors will ensure that decisions are made based on clear criteria and not on prejudices. Level descriptors are seen to facilitate the recognition of prior learning because they indicate broad levels of competency, which, it is believed, can be measured or judged. It is also hoped in Tunisia that the level descriptors will enable comparison of graduates from different programmes. In countries where labour markets are more regulated, level descriptors may relate to salary scales, and policy makers in Sri Lanka and Turkey are hoping that in the long-term the NVQF will be related more directly to salaries.

For those countries which see an NQF as a way of designing new qualifications, level descriptors are seen as the starting point in terms of broad specifications of competencies, from which more specific specifications can be designed. For those countries which want to organize and systematize existing qualifications, level descriptors are seen as the tool which will enable this to be done in a clear, consistent, and transparent manner. In other words, level descriptors are seen as the main mechanism that will create or improve transparency.

What then, do these descriptors look like? The existence of the European Qualifications Framework (EQF) as a powerful force in the world of qualifications frameworks may lead to level descriptors looking similar. Turkey, for example, has adopted the EQF descriptors. In Bangladesh level descriptors drew on the EQF, but with some changes. They are based on 'knowledge, skill, and responsibility', and are linked to very broad 'classes' of jobs. However, other countries have developed their own descriptors. Many countries have a large number of domains or competence areas, and each of these then need to be defined for each level of the framework. Examples in the box below provide further details on some of the specific approaches.

Box 1: Level descriptors in some countries in the study

Six types of descriptors in Tunisia

The Qualifications Framework in Tunisia has six types of descriptors of learning outcomes: Complexity, Autonomy, Responsibility, Adaptability, Knowledge, and Know-how and Behaviour.

Five 'characteristic generic outcomes' in Scotland

The Scottish level descriptors specify 'characteristic generic outcomes' for each level (except level 1) under five headings: knowledge and understanding; practice (applied knowledge and understanding); generic cognitive skills; communication, ICT and numeracy skills; autonomy, accountability and working with others. They were developed based on pre-existing descriptors for the different sectors.

Eight 'domains' in Malaysia

Malaysia has eight domains of descriptors: Knowledge; Practical skills; Social skills and responsibilities; Values, attitudes and professionalism; Communication, leadership and team skills; Problem solving and scientific skills; Information management and lifelong learning skills; and Managerial and entrepreneurial skills.

Ten types of 'competencies' in South Africa

South Africa (whose level descriptors are still under re-development) has ten for the higher levels of its qualifications framework: Scope of knowledge; Knowledge literacy; Method and procedure; Problem solving; Ethics and professional practice; Accessing, processing and managing information; Producing and communicating of information; Context and systems; Management of learning; Accountability.

Concise and detailed descriptors in Lithuania

Levels are defined not only by competences but also by types of activities. There are concise and detailed level descriptors. Concise descriptors are for general information purpose, qualification levels may be described briefly. A concise descriptor of level includes: characteristics of activities, content and acquisition of qualification, opportunities for further learning and qualification development and types of the recognition of qualifications. Comprehensive descriptors are for the usage for different experts (designers of technical vocational education and training curricula, experts involved in the assessment of competences and awarding of qualifications, experts responsible for the recognition of qualifications acquired abroad, etc). Levels are described comprehensively with detailed indicative characteristics of the level of qualifications. Descriptors of levels are based on two parameters. Each parameter contains three criteria.

Ten 'indicators of professional performance' in Russia

In Russia, ten most important indicators of professional performance were identified to formulate descriptors—work with information, reflection, ability to learn, business communication, responsibility, motivation, setting up goals, independence, ability to teach, breadth of views. The development of the above mentioned indicators from level to level of education makes the main content of descriptors. Descriptors were developed according to the following accepted rules:

- a descriptor at each level has to be independent of other descriptors. Only at the place of transfer to a higher level a descriptor has to correlate with the descriptors of higher and lower levels;

- descriptors have to be defined in the affirmative grammar form;

- they have to be concrete and clear, words with abstract lexical meaning cannot be used ("good", "narrow", "acceptable" and etc.);

- they cannot contain professional slang, they have to be understandable for non-professionals;

- they have to be formulated in a short form to provide clear understanding of the essence of the given level.

As can be surmised from the discussion and text box, in many countries the development of level descriptors is an intricate, complex, and sometimes arcane process. This involved and contested work may be understandable both in light of what is expected of level descriptors and because of the difficulties involved in reaching agreement across knowledge domains which have developed in quite different ways, as well as between knowledge domains and the world of work.[13] Some of these difficulties can be seen in the descriptors in the various countries. For example, in Russia, interdisciplinary knowledge is seen as at a higher level than disciplinary knowledge. This, however, may be contested by many disciplinary specialists. In South Africa, there was much contestation about how relative autonomy in working practices related to educational levels, as individuals with no education or training were argued to be able to work highly autonomously.

The examples cited suggest a conceptual difficulty which some researchers suggest is inevitable: in the process of attempting to reach transparency, the tendency is to provide more and more detail. It is questionable in practice how many employers or educational institutions would have a clear understanding of what level descriptors mean if there are descriptors for each of ten domains, for each of ten levels of qualifications. If in practice levels are understood through the well-known or accepted qualifications placed on a specific level, it may be that implicit understandings of the known qualifications plays a bigger role than the descriptors in developing an understanding of what the level means. A more serious problem is that the descriptors are seen to be the central mechanism for creating transparency, and it is hard to imagine how they can do so when they themselves are so complex.

Outcomes, standards, and competencies

All the frameworks in the study involve learning outcomes or competences. The notion of learning outcomes or competencies is central to the development of NQFs, and it is specifically linked to many of the claims that are made about NQFs. This is another complex area, one of the complexities being, as discussed above, that terms are used in different ways in different countries, and sometimes, different terms are used across countries to refer to what appear to be similar things. Some countries talk about learning outcomes, while others talk about occupational standards or competency standard. Some of the countries seem to use the term ‘learning outcomes’ in rather different ways, while in other instances, ‘learning outcomes’, ‘occupational standards’ and ‘competency standard’ seem to refer to very similar things. For example, in Mexico labour competencies are seen as specifications separate from learning institutions, while learning outcomes are seen as part of education and training. On the other hand, in South Africa, learning outcomes were supposed to be developed separately from educational institutions, and the notion of competency was rejected as narrow and inappropriate (although in practice the qualifications and unit standards developed were similar to those in other countries). The Sri Lankan NQF uses occupational standards *as well as* learning outcomes. This all makes for complicated analysis. In addition, the use of learning outcomes is an issue that is highly contested by researchers, but at the same time, learning outcomes are seen in many countries as the most important reform tool associated with the NQF. Some of these issues are discussed further in Chapter 9. For now, this section provides an overview of how the case studies describe the use of learning outcomes in the 16 countries.

[13] This seems to be in line with international literature; for example, Markowitsch and Luomi-Messerer (2008) describe the complexities involved in reaching agreement on the level descriptors for the European Qualifications Framework.

As discussed above, the specification of learning outcomes or competencies is seen as a key tool for improving the communication function of qualifications systems and achieving greater transparency of qualifications. The idea is that the level descriptors provide broad descriptors of competency at a particular level, and the specific competency standards or outcomes-based qualifications (or part qualifications, such as unit standards in Botswana, New Zealand, and South Africa) provide more specific competencies in specific fields or areas.

The original NQFs in New Zealand and South Africa were designed based on the specification of learning outcomes separate from educational institutions or specific learning programmes and curricula. In Australia, Malaysia and Mauritius, this approach is used for a sub-framework of the national framework; in Australia and Mauritius for technical vocational education and training, and in Malaysia for skills training. The Botswana vocational framework and the Labour Competence Frameworks in Chile and Mexico were designed according to this approach, and frameworks in Sri Lanka and Turkey are also being designed in this way.

The summary of the English NVQs above mentions the notion of 'functional analysis'. As it recurs in many of the other countries, more elaboration on this idea is provided below, drawn from the case study on the English NVQs, which describes the approach to outcomes as having emerged in occupational psychology in the USA in the 1960s and the earlier ideas of scientific management. In the late 1980s in the UK it was seen as a new approach to the design of vocational qualifications, intended to make a clean break with the two main elements of qualification design prior to the 1980s. These were:

- the importance of specifying the amount of time that an apprentice would need (sometimes as long as seven years) to become qualified; governments in the 1980s saw this 'time serving' approach as leaving too much control to the trade unions;
- the **syllabus** as the basis for teaching programmes and the assessment of off-the-job learning; governments opposed this as leaving too much control to the teachers, the colleges and the Awarding Bodies.

Both these features of traditional qualification design were seen by proponents of functional analysis as out-of-date and backward looking. Functional analysis instead begins with the assumption that a statement of competent workplace performance can be identified and described by researchers in ways that are recognized by appropriate employers. It derives from such statements a set of individual *elements of competence* and their associated performance criteria. These *elements of competence* (they later became known as occupational standards) are then grouped together into *units of competence* which are assumed by policy makers to make sense to, and be valued by employers and hence warrant separate accreditation. Each NVQ was made up of a number of related 'units of competence'.

This approach, developed first through the English NVQs, is described as the basis of many of the NQFs in the study. For example, the Sri Lankan study describes the following approach:

> The NVQF is based on units which in turn are clustered into qualifications by occupation and level. The minutest element is the element of competence which is described through performance criteria. The process adopted is functional analysis, supported by DACUM (developing a curriculum) analysis, verification of analyzed results, and finally task analysis.

This is followed by a series of technical requirements. Many countries have similar requirements, although the Sri Lankan model is different to that in Botswana, New Zealand, and South Africa, in that it only allows for the award of whole qualifications, whereas the other countries also award unit standards (part qualifications). In most of the countries there are detailed specifications of what an outcome/standard should look like. In some countries

there may be different approaches, as the functional analysis technique of developing learning outcomes or competencies is not mentioned in any of these case studies, although most of them include a learning outcomes or competency specification approach.

Countries which adopt this approach to learning outcomes in their NQF (the frameworks in Bangladesh, Botswana, Chile, the English NVQs, Mexico, New Zealand, and South Africa, as well as the vocational component of the Australian NQF, the skills sector component of the Malaysian NQF, and the technical vocational education and training sector of the Mauritius NQF) tend to see the specification of learning outcomes or competencies as a central and key mechanism for achieving the aims of the NQF. It is believed that learning outcomes will ensure transparency as well as making standards clear, and providing a clear basis for quality assurance and accountability.

Countries which include higher education in their frameworks are less likely to use this approach, or may use it for the vocational sector only. In Malaysia, for example, while the framework is described as outcomes-based, the case study argues that this is essentially because of the level descriptors. The technical and vocational sector has not adopted skills standards, and uses more broad-based standards which combine knowledge-based curricula with skills standards. 'Input' factors are seen as important in higher education. In Lithuania, the higher education sector is described as hostile to the competency-based approach, although there seems to be broad acceptance of the EQF level descriptors. It seems that they will reject the idea that they must use occupational standards as instruments to guide their decisions about content. Only in New Zealand and South Africa was something similar attempted at higher levels, although there are indications that some of the newer NQFs may make similar attempts.

In Scotland (except for the Scottish Vocational Qualifications, which are similar to the English NVQs), higher education providers and the certification body for schools and vocational education specify learning outcomes. In this approach, learning outcomes are not seen as separate from specific educational institutions; it is educational institutions that specify the learning outcomes of the qualifications that they offer. Similarly, in South Africa, when provider-based qualifications were accepted onto the NQF (initially as an interim strategy, but later accepted as an ongoing process), institutions were asked to describe their qualifications in terms of learning outcomes.

Some countries (Lithuania, Russia, Scotland, and Tunisia) see frameworks as primarily grids of level descriptors on which existing qualifications can be organized, and through which existing qualifications can be understood, but also hope that the frameworks can provide the base for the development of new qualifications, in the sense that sets of qualification specifications will be developed, for which educational institutions can develop learning programmes, or against which assessment and certification bodies can assess and certify. Here the idea seems to be that systems will be created to set standards or outcome statements which will comprise the official qualification requirements, and training providers will then be able to develop training programmes against them.

Another term which is used differently across the different countries is curriculum. Properly understanding the differences would involve far more detailed study in the 16 countries as well as considerably more theoretical analysis of curriculum than is possible in this study. Some of the studies specifically discuss curriculum in relation to learning outcomes. For example, the case study on South Africa describes a model whereby learning outcomes were supposed to be the basis for designing curriculum, and also explains that South Africa has returned to a model of centrally-developed curricula for vocational qualifications, in conjunction with what is described as a retreat from the outcomes model. In Bangladesh, Sri Lanka, and Turkey case studies suggest that curricula as well as learning outcomes/competency standards will be centrally-developed, and indeed in Sri Lanka this is seen as one of the central improvements introduced through the NQF. While some countries see a specified curriculum as creating inflexibilities and therefore not meeting the

needs of industry, Sri Lankan policy makers argue that the variation in quality caused by the lack of a central curriculum is a more serious problem for industry. The Sri Lankan model goes further and provides additional learning materials, learner guides, trainer guides, and so on. Increasing equipment in vocational centres is also stressed. Turkey also sees curriculum development as something which should continue to be done centrally at the level of the Ministry of National Education, based on the standards which have been set through industry-led processes. In Lithuania, the study suggests that the current model of curriculum development, with the involvement of experts under the coordination of the Centre for Methodology of vocational education and training, as well as industry representatives and vocational education and training institutions, will continue, but suggests that in the future institutions will be more tightly controlled than before, as the curricula will be expected to be based on the specified occupational standards. But it points out that it is not clear how the new occupational standards will relate to the existing vocational education and training standards, and if the two will coexist.

6.3 Monitoring and evaluation systems

Very little information was found by researchers about monitoring and evaluation systems with regard to the aims and objectives of NQFs. Only South Africa had developed a specific set of success indicators, but these were developed through an impact evaluation, and not up front. Many of the studies suggest that there are indicators which have been developed for separate institutions and parts of the qualifications systems. Where qualifications authorities have success indicators, they tend to be based on more operational objectives, such as how many qualifications have been registered or developed. This may be because the aims of NQFs are so embedded in other structures and processes that governments and authorities do not envisage separate monitoring and evaluation, or this may have been a weakness of the research design, as well as time allocated to researchers.

Stakeholders interviewed in Malaysia suggested that success indicators could include:

- the number of qualifications that are included in the register and the amount of use made of the register by students, employers and providers;
- graduate and other user surveys;
- the quality of courses and providers as revealed through the audit processes;
- the number of international students who study in Malaysia towards qualifications that are included on the register;
- employer feedback through committees and consultative forums; and
- graduate tracer studies that reveal information about their patterns of employment and salary levels.

Chapter 7: Implementation and use of NQFs

What is involved in developing and introducing an NQF and what are the factors that facilitate or hinder progress? How are the NQFs in the study being used? What are the indications that they will be used? This chapter considers implementation and use in relation to the design features and institutional arrangements discussed in the previous chapter.

7.1 The creation of NQF structures, institutions, and systems

Qualifications authorities

Qualifications Authorities, as new institutions, have had uneven paths of development, and in some cases have come into conflict with existing institutions and agencies.

New Zealand and South Africa created qualifications authorities which were supposed to be in charge of all qualifications in the respective countries. The New Zealand Qualification Authority was to have authority for approving all qualifications provided by degree awarding institutions. However, authority for approving degrees provided by universities has remained with the universities. This means that in New Zealand degrees can be approved by two bodies; the New Zealand Qualifications Authority and the Universities (via the New Zealand Vice Chancellors' Committee on University Academic Programmes). South African Qualifications Authority, created through an act of parliament in 1995 as a completely new independent statutory body under the joint oversight of the Ministries of Education and Labour, has lost most of its powers with regard to setting standards. The large number of quality assurance authorities has been rationalized to three Quality Councils.

Lithuania established and abolished a National Qualifications Authority within the space of a single year. There are proposals for an Institution of Governance of Qualifications and a Centre for the Development of Qualifications at the Ministry of Education and Science, but no single institution that is driving and coordinating the development and implementation of the NQF. There is concern that if a vocational education and training-based institution is appointed, it will be ignored by higher education, and vice versa.

In Botswana, the Botswana Training Authority could be seen as either rather weak or very pragmatic and flexible, as its main work has been to give official approval to providers, and it has done so on their terms, instead of according to its own rules, in the sense that providers continue to offer their own qualifications, and not the newly-developed qualifications from the qualifications framework. According to official policy, this is a short-term ‘stage’, and in the long-term providers will be accredited based on unit standards-based offerings. However, there is no timetable for the introduction of this longer-term approach.

The newness of the Vocational Qualifications Authority in Turkey is associated with some challenges, particularly limited staff capacity as there are only a few subject matter experts. New staff are recruited with due attention on general technical skills and high qualifications, however, capacity building on the specific area (i.e. qualifications) will take time. In Mexico the National Council for Standardization and Certification of Labour Competence (CONOCER), which has had a chequered history, has been changed in various ways in terms of its functions, powers, and governance.

Governance issues

A striking similarity in most of the countries is that NQFs seem to be in tension with existing forms of governance. This may be inevitable, given the introduction of new organizations, and the changes in modalities of governance. A thorough engagement with theories of the state and political economy would allow for analysis of what this means in the various countries, but this was beyond the possibilities of the current research.

The Malaysian case study argues that a central question for all NQFs and especially national qualifications agencies or authorities is the relationship between the distributed 'ownership' of qualifications (by educational institutions or awarding bodies) and their communities of users or trust and the centralized role of the agencies in ensuring consistency in quality and standards, and the relationships between qualifications. Many of the case studies highlight that qualifications, particularly those which relate to university entrance or entrance to professions, are high stakes issues which touch on many power relations in society, and that introducing qualifications frameworks therefore inevitably results in conflicts and disagreements. It is perhaps partly because of this that the incremental approach in the development of the Scottish framework was successful—key educational role-players are described as having, in most instances, been kept on board and feeling that they were in charge of processes. According to the case study, the strengths of the Scottish model are that it built on other reforms; that it was driven by key stakeholders from within the education system, and especially from higher education; and that it was seen as an enabling instrument which could be used by bodies involved in change, but not as an agent of change in its own right. This was aided by the fact that Scotland is a small country and has a small and relatively homogenous policy community.

In many countries existing systems are at odds with the logic of the newly developing qualifications frameworks, and most of the studies emphasize that institutions in each country have a logic of their own, which the NQF may come into conflict with. This is stark in Russia, with the various existing regulatory frameworks in occupations and education and training. Sri Lanka may be an exception, as the NQF is being implemented through existing institutions.

In nearly all the case studies, implementation is described as having been 'hindered' by differences between different government departments or agencies, lack of power of qualifications authorities, overlapping responsibilities, conflicts between different laws and regulations, and changes in government. This may be because NQFs are often discussed with a focus on implementation, and policy design is assumed to be accepted as given. The case studies offer considerable evidence of failures of government departments and agencies to work together or maintain a consistent policy over time. However, 'hindered' has a negative connotation, and implies, as is described in Lithuania, self-interested bureaucracies guarding their own interests. But caution should be adopted here, as sometimes government agencies may 'hinder' with good reason. In South Africa, for example, the case study suggests that some government departments 'hindered' the NQF at least in part because of problems with the original model.

NQFs in some sense depend on coordination between different government agencies, but they are also brought in order to create coordination—a chicken and egg situation. In the case of Malaysia, the NQF seems to be a substitute for coordinated government systems. Malaysia has a formalized and centralized governance structure and culture which is strongly legislation based, with a high degree of institutional separation between Ministries. A major focus of the NQF development processes has been reconciling differences between government agencies, rather than building support of industry and providers. This is reflected in the composition of the Malaysian Qualifications Agency Council, where the largest group of members is from government agencies.

Managing interrelationships between government agencies seems to be a tricky issue in many of the countries. South Africa shows a move from a system jointly managed by the Ministries of Education and Labour to Ministries of Education only. In Mexico, one of the serious problems of the first attempt to create a Labour Competence Framework was extreme difficulties with working across a large number of government agencies as well as other stakeholders and role players. In Botswana the qualifications framework has been housed in the Ministry of Labour and Home Affairs. However, it is with the Ministry of Education and Skills Development that the Botswana Training Authority does most of its business, and it looks set to relocate.

In Turkey, the Vocational Qualification Authority is represented by its president in the Economic Coordination Council of the government. In Tunisia, the location of the framework in the Council for Human Resource Development is seen as a strategic location which will ensure impartiality and that all certification decisions in all ministries are informed by the level descriptors. In Sri Lanka the Ministry of Vocational and Technical Training is the national oversight Ministry for the technical vocational education and training sector.

Accreditation, assessment, and certification structures and institutions

The English NVQs as well as the South African NQF attempted to introduce decentralized assessment with registered assessors. In the former, assessment was initially supposed to be internal, workplace-based assessment, but this came into tension with the output-related funding, and the perceived need to separate assessment from provision. South Africa had registration systems for providers, prior to the introduction of the NQF, but registration could be described as a very 'light touch' system, with very basic information being required in order to register a provider. This was based on the idea that institutions would be subjected to the same centrally and externally set examinations, which then functioned as the key quality assurance mechanism. South Africa tried to introduce an accreditation system that gave greater autonomy to institutions, subject to meeting accreditation requirements. This was linked to the proposed decentralized assessment model. The idea was that the quality assurance bodies would check up on how well providers were training against the outcomes, and also on how assessment was conducted against the learning outcomes. This did not work for various reasons, one being that standards of assessment were far too divergent. Quality assurance bodies were not able to conduct more than a cursory examination of most institutions, given the number of education and training institutions in the country. There has been a return to centralized assessment.

In Lithuania the idea is that learners should be able to be assessed for each acquired competence separately, as and when they choose. It is believed that the NQF will make this possible as it will be comprised of occupational standards. A first step is seen as taking away the 'monopoly' on assessment currently held by the Chambers of Industry, Commerce, and Trades. There is an explicit notion of marketizing the system, by introducing competition. Any institution should be able to prove its capacity to conduct assessment. But, there is as yet no clarity as to who will conduct this assessment and how. The idea was that the National Qualifications Authority would certify institutions who felt they had the capacity, including employers, trade unions, and so on. But, after the abolition of this short-lived authority, this function has reverted back to the Ministry of Education and Science, who have indicated that they want to continue the function of the Chambers of Industry, Commerce, and Trades. What is not clear is how/if this institution will shift based on a competence-model. One industry representative interviewed described the proposed assessment models as bureaucratic and "difficult to control". Industry representatives were particularly concerned about the notion of new models replacing the experience built up in the Chambers of Industry, Commerce, and Trades. The case study also argues that there is a

dearth of competent professional organizations and stakeholders who can "evaluate and award competences and qualifications acquired in different ways, especially in informal and non-formal ways".

In Mexico, where the labour competence framework was primarily linked to assessment and certification rather than teaching, the focus of accreditation was on giving institutions authorization to conduct assessment. The initial idea was that assessment centres should be third party organizations, but after strong pressure it was accepted that educational institutions could be assessment centres. Various problems were experienced. For example, although assessment centres developed instruments according to an official manual, and based on the same labour competence standards, their quality was uneven. Additional guidelines and specifications were produced. Assessment costs were high, although they varied among assessment centres and awarding bodies, and showed some signs of going down.

The case study on Russia indicates that there is a proposal to set up Certification Centres to enable systems of certification independent of educational institutions; it is not clear how developed this idea is. It would seem that governments are less likely to sub-contract certification through accreditation systems, although this has been done in Chile and Mexico, and is proposed in Turkey. The proposals in Turkey are particularly interesting given that the current journeyman and craftsman (sic) certificates are issued through an organization representing industry. The current set-up is seen as unacceptable because the same body is involved in training provision. In Mexico, the idea of separately authorizing awarding bodies, assessment centres, and independent assessors was seen as a way of guaranteeing the impartiality of the assessment-certification process. Awarding bodies must be third-party organizations—in other words, they cannot be education and training institutions. CONOCER was in charge of awarding bodies' external quality assurance, while awarding bodies were responsible for assessment centre's external quality assurance. In Chile there is a strong emphasis on separating training, assessment, and certification, to prevent conflicts of interest, and to ensure an open market among suppliers of assessment services and certification in order to achieve transparency. The idea is that this will be initially financed by the state, later 49 per cent by the state and 51 per cent by private sector.

In some of the older NQFs, certification was not an initial policy focus, and this led to problems at a later stage. For example, in both South Africa and Mauritius the initial design of the NQF did not make explicit who would be designated to issue the new qualifications. In South Africa, some of the new quality assurance agencies in the economic sectors issued qualifications, but many of them did not have the capacity to do so, and certificates continued to be issued by educational institutions. In Mauritius, the lack of a certification agency for the new qualifications is believed to be one of the reasons why they have not been used.

In some of the countries the new accreditation systems, whether for provision, assessment, standards setting, or certification, seem to imply a large amount of contractualization, including contracts for standards setting, contracts for assessment, and contracts for certification, all based on the oversight of accreditation authorities. In other cases, it is not so much a case of contracting as authorizing these functions. In both cases, there are high expectations from accreditation systems and high expectations that accreditation agencies can effectively monitor the various institutions contracted or authorized to conduct the various functions.

Structures and processes to design competency standards or outcomes-based qualifications

Many of the case studies suggest that the processes of developing learning outcomes have not been straightforward. In some the technical specifications of outcomes have been through various reviews and changes. For example, in Mexico various revisions were made when it was felt that the information contained in the element components was not sufficient and not clear enough, above all for users that had to ask someone to translate the standard contents.

Involving industry in the development of competency standards or outcomes-based qualifications is a major goal of NQFs, as well as being a major way in which NQFs are intended to achieve their goals of relevant education and training. It is important, therefore, to note that industry involvement is a key difficulty in most of the countries in the study. Nearly all the case studies cited difficulties in involving employers, and participation was much lower than governments and policy makers had hoped. Involvement of trade unions is an even greater difficulty, with most case studies reporting little or erratic involvement, or problems such as unions being 'silent partners', as the Lithuanian study suggests. In some cases researchers struggled to find union representatives to be interviewed who could comment on the NQFs, indicating that there had been very little involvement.

In many countries, in practice the work of designing outcomes or competency standards is outsourced to consultants. In most of these instances, there are still some processes or structures for 'consultation', but these are subject to the same difficulties, with poor participation. In South Africa, National Standards Bodies, which were created as stakeholder-driven structures to approve qualifications and unit standards in 12 different areas, were the first structures to be changed, as they were largely dysfunctional. The structures established to design outcomes-based qualifications have also been largely abandoned. In Mexico participation in the technical groups was quickly designated to human resources personnel. In some instances individual workers participated in technical groups to develop standards, but not as trade union representatives. Participation of educational and training institutions was very limited. In Sri Lanka, while some individual employers in some sectors participate, employer organizations are generally not active, and many sectors have little employer representation. In Lithuania employers are described as reluctant to invest the required time and energy. In Bangladesh employers are described as reluctant to be involved, although industry engagement is growing in two of the four sectors piloting implementation of the NTVQF. Where work on NQFs is initiated through technical assistance projects, there is always concern about the long-term sustainability of institutions set up to maintain industry involvement. In the absence of these ongoing donor-funded technical cooperation projects, there is always concern about the long-term sustainability of maintaining industry involvement with the responsible government bodies.

In Lithuania, the development of standards was initially to be located under the National Qualifications Authority. Some work was done by a small group of contracted experts through a European Social Fund project. These experts analyzed existing qualifications, designed standards, and prepared pilot versions of occupational standards in the sectors of construction and hospitality. The National Qualifications Authority in its single year of existence attempted to start the development of occupational standards, but, according to the case study, stakeholders did not have a clear understanding of their roles. Similarly with regard to assessment and awarding of qualifications, there is an ongoing lack of clarity about roles and responsibilities. Now, the development of standards and qualifications will be located under the Ministry of Education and Science, and may involve subcontracting experts from business and researchers.

In Bangladesh the case study suggests that most of the representatives in the Industry Skills Councils did not know about the NQF at that time, and were unable to comment on whether the qualification levels in the framework would fit with levels in their workplaces.

In Russia although a main aim was reducing the complexity of existing occupational qualifications, so far the NQF is not used within the classification of labour qualifications, and is not used for making reports or forecasting. Occupational standards developed through the NQF do not have good linkages with the existing system of labour legislations and classification in the labour sphere. Most educational standards continue to be developed with no reference to occupational standards.

7.2 Social dialogue and the role of stakeholders: employers, trade unions, and providers

Most of the qualifications frameworks in the study are very government-led, although government is trying to ensure partnerships especially with employers and trade unions. Scotland is an exception as the framework is led by educational institutions, either directly through higher educational institutions or through awarding bodies. The higher education sector, SQA, Scotland colleges, and government formed a company limited by guarantee and registered charity (the SCQF Partnership) to manage and lead the framework.

In some, such as Sri Lanka, where provision of technical vocational education and training has been centralized through the government, it is described as inevitable that government should lead such an initiative, but this is not seen as contradictory with involvement of other social partners. In others, such as Lithuania, NQF development is described as a 'top-down regulative approach', where the role of social partners may be undermined. There are cases (such as Russia) where the NQF initiative is led by employers' organizations or, in the case of Chile, where a private foundation has been a key driver. In many of the countries there is strong stakeholder support for the NQFs, and a belief that they will achieve their objectives. However, many of the case studies report serious difficulties as well. In some of the countries, employers and trade unions are described as 'passive' or unwilling to be involved, and educational institutions are described as offering 'resistance'. These issues are explored further below.

The case studies on Malaysia and Turkey reflect some positive experiences. Officials interviewed for the Turkish case study argue that the voluntary participation and involvement of stakeholders (specifically the world of work) in the process as one of the strengths of the emerging Turkish qualification framework. Social partners have been represented in the general board of Vocational Qualification Authority and this gives them the opportunity to express their needs and priorities and to set strategies for the system accordingly. It is further suggested that stakeholders have a say at every stage of the process and system is shaped through consensus. The voluntary approach is supported through continuous representation of stakeholders in the Authority's highest and most important strategic decision-making organ. This involvement is described as enhancing the sense of ownership and having a positive effect on the outcomes of the system. Interviewees from the Vocational Qualification Authority emphasize the commitment and consensus on NQF activities both from the industry and from the education and training side. They also emphasized that the education and training stakeholders know what they are supposed to do and there is consensus at the policy (macro) level among these stakeholders. It is hoped that where there are differing views on further details, these can be discussed and mediated through continuous dialogue.

The Turkish authorities interviewed also emphasized that industry was involved in all key structures. Industry and world of work are represented by various institutions/ organizations in the General Assembly of the Vocational Qualifications Authority. The Confederation of Turkish Tradesmen and Craftsmen, one of the largest civil society organizations having the highest level of representation both from production and service sectors with around 4 million registered members, the Turkish Confederation of Employer Associations, the Union of Chambers and Commodity Exchanges of Turkey, and the Confederation of Turkish Trade Unions are among them to name a few. Members of these

institutions/organizations are authorized to take part in NQF-related activities (occupational standard development) by signing the protocols of cooperation with the Vocational Qualifications Authority. There are some sectors that have not been involved. The Qualifications Authority believes this is due to lack of vision, lack of knowledge about the concept of qualification framework, and lack of resources and capacity.

Similarly in Malaysia stakeholders and role players interviewed felt that processes had been consultative, and in general expressed support for the framework. They pointed out that initially there was extreme tension between participants, particularly over the location of responsibility for quality assurance, as well as for jurisdiction over levels and credit values of qualifications, but that this had been resolved. It should be noted, though, that union involvement is very limited, and professional associations seem to be the main stakeholders. This is a problem for the Skills sector, as well as for technical vocational education and training, as many if not most professional associations only recognize degrees. Industry in general has played a minor role in the development of the Malaysian Qualifications Framework, although it is involved in the Skills sub-framework.

Other case studies reflect more difficulties. Mexico's Labour Competence Framework was initially developed through a complex project which attempted to bring all relevant stakeholders and role players on board. In the Technical Education and Training Modernization Project (PMETyC) governance, the Secretariats of Public Education and of Labour and Social Welfare participated, and an Administrative Unit was created in the Secretariat of Public Education, called Administrative Unit of PMETyC (UAPMETyC). It had a Technical Committee integrated by four under-secretaries from three secretariats, and the heads of CONOCER, the Technical Vocational Education National College, and UAPMETyC, as well as a representative of National Financing Entity (the financial intermediary). Just trying to follow the structures and acronyms in the previous sentences can make one confused, so it is no wonder that the case study suggests that this complicated arrangement had many problems, and led to power struggles among persons who had similar levels in their official positions or did not accept authority of others, specially from other Secretaries of State. The case study also points out that the commendable attempt to build a multi-sector and multi-institutional participatory approach was difficult to put into practice. The role of stakeholders was not quite clear among institutions, organizations, and users of the Project. In the second attempt at building a Labour Competence Framework, CONOCER describes the process of convincing enterprise and trade union authorities to adopt the competence approach as a key strategy.

South Africa has also struggled with stakeholder-based processes, after the failed attempt at an extremely inclusive and consultative approach. There was considerable debate about where and how stakeholder participation is useful or appropriate. In general, while stakeholder consultation is very much valued in South Africa, the new structures which have been created are not primarily stakeholder-driven, and there is a greater emphasis on expertise.

In Mauritius, while some employer representatives, particularly those involved in the Industry Training Advisory Committees, were positive about the processes, and felt that the qualifications would be useful, other employers and union representatives had never seen the new qualifications and were not even aware that the process was taking place. Interviewees from one of the unions had not even been aware that work on an NQF was taking place. Other interviewees in Mauritius, including employers and representatives of private providers, stated that while they have been involved in the process it has been very time consuming and lengthy and that this impacts on the extent to which they can offer the process their full commitment. One interviewee is reported as observing that, "I have been to 47 meetings, there are a few qualifications, and it has been two years!"

In Bangladesh industry is mainly not yet involved, although sustained attempts are being made to involve them. A serious problem is the size of the informal economy

compared to the formal. But even in the formal economy, at this early stage in the process, most employers are unaware of the proposed NQF. There are plans to undertake a significant social marketing campaign. In Sri Lanka some of the newly emerging sub-sectors such as the Catering, Personal Services Industries, etc. have subscribed to the NVQ qualifications as they consider subscription to a national qualification improves the image and recognition of the industry. The National Construction Contractors Association and the Construction Chamber through their training arms are actively engaged in promoting training and certification conforming to NVQs. Most other Chambers have not actively pursued a concerted and focused program to promote NVQ among their member firms. Currently relationships built are more with individual firms and not with employer associations. The absence of a networking or relationship building strategy with employers, and Chambers, and other potential users (direct and indirect), is seen as a key shortcoming.

The case studies on Bangladesh, Lithuania, Sri Lanka, and Turkey all argue that more employers would become involved if more information were provided, so that they could become aware of the potential benefits. In Lithuania, industry was described as sometimes resisting the new approach; the case study attributes this to ignorance, as experts who had been involved in the design of the NQF suggest that it is not sufficiently known by the business community. This is a problem as the proposed model of the NQF is dependent on an active and important role of employers and employees in designing qualifications, organizing training, and conducting assessment. Similarly, experts argue that implementation will only work with strong and active participation of professional associations and trade unions, but unions interviewed felt that they had been ignored in the design processes. The existing problem in the system is their lack of participation. This raises the question: are NQFs dependent on this participation, or can they be a tool or process to facilitate it? The case study on Lithuania also argues that social partnerships are not properly conceptualized, and roles not well thought through, and that in many instances, stakeholders are not fully apprised of the broader intentions of government with regard to processes and structures in which they participate. Furthermore, where roles are better conceptualized, stakeholder representatives are government appointed. Expert groups constituted by industry sector on a tripartite basis plan qualifications and provide information on labour market demands and required competencies; however, these groups are often seen as dominated by technical vocational education and training schools. The case study moreover argues that ultimately stakeholders have a limited role according to how the NQF has been designed, and that they will be subordinate to state institutions. One stakeholder interviewed in Lithuania said discussion on the higher education law amendment reminded him of his youth in the communist youth organizations, where dissenting opinions were not permitted. Other people interviewed said it was hard to find the correct balance: the initial processes had a lot of dialogue but no legal clout. Now government is pushing ahead with law in the absence of social dialogue. Some of the stakeholders interviewed, particularly trade unions, felt that the processes so far have been rather rushed, and have underestimated what is involved. There is concern that tasks are delegated to institutions that don't have sufficient capacity or resources, and timelines are unrealistic. Where professional bodies are strong and where there is strong organization in the academic community, this is seen as a potential strength and something that can assist implementation of the NQF.

In Russia there is a very strong role for industry, as the NQF is driven through the Russian Chamber of Industry. A National Agency for the Development of Qualifications has been established in the Russian Union of Industrialists and Entrepreneurs. This agency has developed a model for the development of sectoral frameworks based on the national framework of levels and level descriptors. As mentioned earlier, there is a problem with lack of coordination with other initiatives which are also trying to improve or reform the various classification or regulatory systems and mechanisms.

In some of the countries, trade unionists supported the creation of an NQF, hoping that it would improve their members' ability to access training, get certification for existing

skills, and strengthen their bargaining power. The Tunisian case describes union involvement at certain stages of the process. In many countries unions have not really been involved, and lack capacity, although there are examples of unions being hopeful about what NQFs can achieve. In Lithuania, Malaysia, and Mauritius, private sector unions are very weak, but public sector unions are stronger and feel they could play a role. In Mauritius in most instances unions leaders interviewed had not even heard of the NQF. In Tunisia, with a stronger history of occupational qualifications and regulation, unions have shown some suspicion about the processes of developing an NQF, and some have felt that new classifications may undermine collective bargaining agreements. In some instances this has led to trade unions not participating, for example in the tourism sector. In Sri Lanka there is very little trade union involvement. This is attributed by policy makers as due to preoccupation with bread-and-butter issues, and a lack of culture of tripartism in the country. Unions interviewed had only recently become aware of the NVQF, and were still considering its potential benefits.

It appeared as if in most countries there had not been sustained attempts to conduct informed debates between stakeholders based on labour market research. It could be the case that this kind of process has taken place, but detailed information was not obtained through this research.

The role of educational providers is an area where problems are described in many of the case studies. In many of the countries education and training providers are described as 'offering resistance'. In Sri Lanka, for example, it is argued that institutional traditions and the previous culture of training delivery interfere with the introduction of new systems and measures for quality control and accountability. This is attributed to earlier independence in determining the content and non-accountability for content or quality of training, and internal and external efficiencies not being visible to external third parties. It is also reported that trainers are very concerned that sufficient funds will not be forthcoming to make implementation possible. Some trainers claim that the new curriculum is a straitjacket and is unrealistic given existing resources. The authority in charge of the Labour Competence Framework in Mexico argues that the competency-based approach has not permeated education and training in Mexico because of the rigidity of educational institutions. In Turkey the Qualifications Authority anticipates that there may be resistance from those who it describes as having a monopoly in some sectors for training provision, testing-assessment, and certification. The Lithuanian study suggests that it is higher education providers who are likely to resist working with occupational standards (as happened in New Zealand).

The case study on Botswana argues that private providers are not interested in whether or not learners get employed. They sell courses such as computer literacy courses because there is a demand for them, or because they are easy to provide, even though people who complete these courses do not get jobs. Their concern is to make a profit. The case study also argues that private providers lack resources needed to re-design courses. Adoption of the new Qualifications Framework would inevitably lead to higher costs as they would have to train trainers, buy new resources, and pay for other processes required to meet the Botswana Training Authority accreditation and registration standards. State colleges see no point in abandoning tried and tested methods, and find the unit standards difficult to work with and difficult to interpret. Botswana also attributes resistance from educators to conservatism and elitism.

In New Zealand and South Africa dissatisfaction of providers, particularly in higher education in New Zealand, was a key factor leading to the collapse of the original NQFs. The new NQF in South Africa looks as if it will be much closer to educational institutions, and reflect their concerns more directly. The countries in which providers seem to be the most supportive are Malaysia and Scotland, where the NQFs are driven by either providers or educational agencies such as awarding bodies and quality assurance agencies. These studies also emphasize that 'providers' are not a homogenous body. Some clearly have

more power than others, and they may therefore have different relationships with qualifications frameworks and authorities.

Besides resistance from providers, in many countries weaknesses of providers is seen as a major problem. Here, some of the studies cite the fact that technical vocational education and training receives a very small part of the total education and training budget, and that institutions have been neglected. Facilities are an issue, as well as the capacity of staff.

While some of the case studies describe educational institutions as 'hindrances', in general they do not consider the possibility that the concerns of these institutions may be serious or valid. This raises many questions about educational institutions: Are educational institutions just another stakeholder in education and training systems? Are they just users of systems which should be designed by others? What motivates people who work in educational institutions? What types of arrangements are likely to lead to high quality education? Should policy not be more focused on improving or supporting education and training institutions? These are questions which policy makers and development organizations may want to consider when designing interventions.

7.3 Development and use of level descriptors

How are level descriptors designed, and how are they being used? Are stakeholders involved? In Scotland, where the process has been a lengthy one driven by the key institutions involved in awarding qualifications, the official descriptors may be well understood by these partners. The building of such shared meanings is not possible in cases where descriptors are adopted or developed by less representative groups—such as, where they are designed by a technical expert, as the case study on Bangladesh suggests was the case in that country. In South Africa there was considerable debate about level descriptors, and it was initially felt that they could not be created 'in a vacuum'—independently of specific exemplars. Some felt that the outcome statements for the different specialist areas must be created first, and that the level descriptors should be created from them. Others felt that the level descriptors needed to be the starting point. Qualification design started in the absence of level descriptors, and qualifications were placed on the framework prior to the creation of level descriptors. Drafts of descriptors were argued over for some time, and it was difficult to reach agreement across different educational sectors. In Lithuania, they were designed by a group of experts, through the European Social Fund project that initiated work on the NQF. The descriptors need to be approved by the government. In Chile, they are being designed by experts comprising representatives from government agencies in the *Chile Qualifies* project, and professionals commissioned from a university.

In practice, looking at the countries with longer experience of implementing qualifications frameworks, it is not clear how much level descriptors are actually used, and how much assistance they have provided. From the experience of the older frameworks, it seems as if the allocation of qualifications to levels is likely to be based on the relative power of institutions, as well as already accepted implicit levels within the country. For example, it is unlikely that a vocational college would be able to assert the level of their qualifications against the judgment of university admission officers, unless this was supported by government.

In Scotland, what are known as 'the development partners', (the Scottish Qualifications Authority, which is responsible for secondary and vocational qualifications, as well as higher education institutions), are responsible for placing their own qualifications in the framework. Credit-rating is the name given to the process for admitting other bodies' qualifications. This is seen as involving a 'process of professional judgement ... exercised by those best qualified through experience and knowledge of the discipline, field of study, profession, trade or area of skill' (SCQF, 2007, p.13). The level descriptors, key

instruments in the credit-rating process, 'give broad, general, but meaningful indicators of the characteristics of learning at each level. They are not intended to give precise or comprehensive statements of required learning at each level.' (ibid, p.7). In Malaysia there is an equivalency committee which decides where to place qualifications. However, given that the three sectors differentiate their different qualifications that are located at the same level by the percentage of practical and applied and theoretical learning that is contained in their respective qualifications, it would be difficult to use level descriptors for an exercise such as credit rating of equivalent qualifications across two sectors.

7.4 Use of learning outcomes

As discussed earlier, in most of the frameworks outcomes are seen as a key tool and are linked to many of the goals of NQFs, such as creating transparency and 'demand-led' education and training systems, and others. In some cases, outcomes are seen as a way of describing qualifications that already are part of the education and training system. In others, outcomes and competency standards are seen as the basis for developing new qualification specifications, which, it is hoped, will lead to new learning programmes, and new awards. However, the case studies in this study raise some concerns for this latter idea.

Although developed through stakeholder-based processes, including industry involvement, in many instances none or few of the new qualifications or competence standards have been used, in the sense of having assessment and awards conducted against them, or provision delivered against them. For example, in South Africa, 787 new qualifications were developed, and only 180 have been used, and the awards made against these 180 qualifications represents a tiny fraction of the total awards made in South Africa, despite the original intention that the new qualifications would replace all existing qualifications. Many of the qualifications were seen as very narrow and over specified. In Mauritius none of the new qualifications have been used, eight years after the introduction of the NQF. In Botswana only ten courses have been developed based on the standards. The Botswana Training Authority does not have records of learner numbers in these courses, or numbers of achievements against the standards. However, ten courses from ten individual providers is a very small fraction of total provision, and it is interesting that even government colleges do not use the newly-designed unit standards.

In Mexico, 16 of the 128 standards generated 83 per cent of total certificates; 37 per cent of the total correspond to the level two qualification. Of around 630 labour competence technical standards registered up to 2008, 530 had not had any assessment and certification use. Some higher education institutions that were contracted to develop competence-based educational materials argued that standards were simplistic and there should be an analysis of the needed learning process that precedes performances. An official interviewed in Mexico suggested that the first attempt at introducing a Labour Competence Standardization System had no effect on employer motivation and even less interest from workers. This is attributed to a strong tradition of seniority in job placement and promotion.

The situation with regard to the English NVQs is similar, and Australia and New Zealand also have many qualifications with low take-up, and some which are completely unused. In both the English NVQs and the Mexican Labour Competence Framework, many of the qualifications that have been awarded have been linked to specific government-funded projects or government requirements, and not based on spontaneous or direct requests from industry.

The design of outcomes-based qualifications in some instances seems to affect the extent to which a framework is nationally accepted. The original NQFs in New Zealand and South Africa were both substantially changed, as educational institutions, researchers, and policy makers criticized this approach. New Zealand still uses this approach for some of the vocational and technical qualifications on its register of qualifications, but South Africa has

completely moved away from it. In some countries these qualifications cover the lower levels of higher education, but in most of the countries, the bulk of qualifications, both in terms of the numbers of qualifications on the framework and the numbers of qualifications awarded, are at the lowest levels. In New Zealand, higher education's rejection of the unit standards-based approach was a key factor leading to substantial changes to the framework. Even when there are higher levels within the competence-based qualifications, for example, in Mexico where the NQF has five levels with the fifth supposed to be at the level of a Bachelors degree, there were no actual qualifications or labour competences developed at this level. In Turkey most qualifications designed so far are between levels 2 and 5. This is not necessarily a problem in itself, except where qualifications frameworks are intended as comprehensive, or where policy makers or stakeholders are trying to encourage higher levels of education and training. The Australian study, for example, points out that the use of competency-based training in technical vocational education and training makes movement to higher education particularly difficult. In Tunisia there is concern from stakeholders that the proposal to place training diplomas from levels 1 to 4, and higher education qualifications from levels 5 to 7, simply reproduces the existing divisions.

7.5 Legal status of NQFs

In many of the countries, formal legislation and regulations are important tools to create, manage, and govern NQFs. The existence of legislation may also be seen to serve as a signal to key stakeholders of the value attached by government and its commitment to the NQF.

In Botswana, Mauritius, and South Africa, laws were passed to create Qualifications Authorities, with the purpose of creating an NQF. South Africa later amended this, so that the NQF itself is created through legislation, and the Qualifications Authority and other related bodies have separate legislation. NQFs in Malaysia and New Zealand have a legislative base, and the NQF in Australia is mentioned in various regulations and policies, and can thus be seen as having a legislative base. Interestingly, the NQF in Scotland, widely seen as one of the few successful examples, has been created through voluntary agreement amongst the key role players, and does not have a legal base. In Sri Lanka legislative changes do not so far seem to be seen as necessary.

The Labour Competence Framework in Chile was legalized after a very long process of contestation. The NQF in Tunisia was introduced through a vocational education and training law introduced in 2008. Its design and governance has been defined through a decree attached to this legislation. In Lithuania, it is hoped that amendments to existing legislation will give the NQF legal status. It was mentioned in the 2007 Amendment of the Law on Vocational Education and Training, through which the National Qualifications Authority was established. In so far as the NQF exists through this law, it is a vocational framework only.

Not surprisingly, NQFs regulations have in some countries overlapped or been inconsistent with other laws and regulation of education and training, labour laws, and so on. This was a clear problem in South Africa, and is an anticipated problem in Russia, where the development of the NQF is already at odds with various legal and regulatory frameworks that it is trying to engage with. For example, use of the newly developed occupational standards would be against existing labour law, and getting the necessary legal changes to coincide with each other is difficult. At the same time, the NQF and the new occupational standards contradict the actually existing state educational standards and accreditation requirements.

7.6 Pilots and sectoral approaches to implementation

In an ideal world, policy development would consist of exploratory phases, followed by conceptual discussions and design, piloting and testing, implementation, and reviewing. This is not always possible, though. For example, it is hard to see how a comprehensive NQF could be piloted *per se*. The current set of case studies show the implementation of NQFs to be a much less straightforward process, embedded in other policy processes and structures. In many instances it is not a policy which is designed, tested, implemented, and reviewed, but a policy which builds on, revises, brings together, or modifies existing policies to do with qualifications, regulation of occupations and professions, curriculum policies, and delivery and management of educational institutions. In Scotland and Malaysia, for example, although the formal introduction of an NQF can be seen as a specific moment, the NQFs are so much part of preceding educational reforms that they cannot really be separated out. New Zealand and South Africa have been characterized by reviews and ongoing changes. In Botswana there was some sense of an initial design phase, followed by a capacity building phase, followed by an implementation phase, but there were no pilots *per se*, and there has been no formal evaluation.

The case studies do not report attempts to pilot implementation of NQFs. However, there are some countries, such as Bangladesh, which are starting with sector-based implementation, which could be seen as piloting. A common trend across the case studies, as discussed in Chapter 8 below, is success stories in specific economic sectors. It seems clear even with the newer frameworks that some sectors are more likely to experience successes than others. For example, in Lithuania at the time of writing the case study, employers in the construction industry were trying to attract skilled workers, and therefore trying to improve wages and promising training and further wage increases. This sector, therefore, is seen as one in which qualifications reform may play a useful role.

In Turkey there is a strong sectoral approach to implementation, and specific sectors are described as being likely to succeed because of well-developed, committed, and powerful sectoral organizations. It is hoped that success stories will create constructive competition among other sectors (as industries that have not previously taken part in Vocational Qualification Authority activities start showing interest to the process) but also that they help create awareness and knowledge of the qualifications framework among larger groups thus indirectly contributing to the dissemination efforts.

One of the most cooperative sectors in NQF activities in Turkey is the construction sector as it has been in the process since the 1990s through earlier donor-funded projects and still takes an active part in relevant initiatives. This sector has a need for well-trained and qualified workers. The Turkish Construction Industry Employers' Union (INTES) has taken an active part in occupational standard development process for about a year and they have determined the occupations to be taken to the agenda mostly through a labour market needs analysis (a survey) rolled out to their 125 members, in addition to the medium and long-term investment plans of the government. INTES intends to expand its activities to different stages of the process including testing, assessment and certification and has a target of properly certifying one million people in the sector in the medium-term. It is preparing for the accreditation processes.

Tourism sector organizations in Turkey have also taken an active part in qualification framework-related initiatives since the early 1990's, led by the Ministry of Culture and Tourism. The Ministry is currently involved in occupational standard development in cooperation with the Touristic Hotels and Investors' Association and the Mediterranean Touristic Hotels Association. The Ministry has allocated 20 staff for qualification related activities all coming from (and having experience in) the tourism sector, participated previously to standard development activities and having a good knowledge on real implementation. A consultation process was undertaken in all regions, and reflected different sectoral segments—for example, for hotel trade occupations, information from

hotels with different star ratings have been collected and care is given to gather feedback from all regions of Turkey.

Bangladesh and Russia are also following a sectoral approach to implementation. In Bangladesh, four key industry sub-sectors are targeted and 13 occupations. Four other sectors will be covered in a later project through a different donor (Asian Development Bank). A third project through a third donor (World Bank) will support training activities at the tertiary level. In Russia, different sectors are trying to develop frameworks which fit into the nine levels, although they are also allowed sub levels. The most active sectors are those which are new (florists and ritual services), those which are developing rapidly (catering, information technologies, construction), and those experiencing shortages of qualified employees (aircraft construction, machinery, construction, information technology).

As a broader part of vocational education reform, Tunisia has created pilot projects in 15 sectors for increasing the autonomy of technical vocational education and training institutions. It is intended that the learning from these pilots will then be extended to the rest of the professional education and training system. Since 2006 professional sectoral classification has been in process, where qualification levels are expressed in terms of results of training. Initially repertories of the trades and competences were developed on the basis of analysis of employment.

7.7 Policy breadth

Policy breadth is understood as a range of policies and institutions which work towards the same objectives, or contribute to complementary objectives, or which reinforce and support each other. NQFs are much more likely to contribute to the achievement of objectives if other policies also support the broader aims. This research was interested in whether there are necessary prior conditions which must be met in order for NQFs to play a useful role—for example, the literature review suggested that the existence of strong professional communities of practice is necessary to have a shared understanding of standards. Another interest was which complementary policies seemed to be necessary.

In most of the countries in the study, there seems to be some degree of policy breadth. For example, the NQF in Lithuania is part of the implementation of a modular technical vocational education and training system and linked to the introduction of the European Credit Transfer System in higher education. In Sri Lanka, the creation of new qualifications has been supported by the establishment of the University of Vocational Technology (Univotec) in June 2009, although the Univotec has been established as an entity separate from the traditional University setup and has so far no alignment with the traditional university system. In Malaysia related policies such as a skills levy have worked well with the skills sub-framework of the NQF, despite opposition from industry and a recent reduction in the levy from 1 to .5 per cent because of the current economic crises. In general the money does seem to be spent on training. The *Chile Qualifies* programme was a broad programme involving upgrading of schools, training technical teachers, labour market studies, information systems, and so on, as well as a unit for the Standardization and Certification of Labour Competences. Its main aim was the coordination of the wide range of projects and programmes on offer, and the Labour Competences Framework was seen as a tool in this regard.

However, the case studies did not provide clear indications of necessary prior conditions, or about the appropriate broader policy environment. This could be partly because of the early stage of implementation of many of the frameworks, or because it was difficult for individuals interviewed to separate out causal relationships. The case studies show that the notion of policy breadth is not a simple one with regard to policy implementation. For example, in Botswana there is a raft of policies in relation to technical

vocational education and training reform, youth policy, policy to encourage entrepreneurship and provide loans to small start ups, but none seemed to be particularly successful in their own right. Similarly in Chile, the Labour Competence Framework was not created in a vacuum. The Mexican Labour Competence Framework was introduced as a component of broader reforms, which also aimed at modernizing training programmes to increase their flexibility and relevancy on the basis of labour competence qualifications and stimulating demand for competency-based training and certification to promote private sector initiative and participation in training design and implementation. It seems that too much complexity was created in the attempt to have policy breadth and involve all the relevant role players.

7.8 Other implementation issues

As is much discussed and reported on, the Scottish process can probably be seen as the most incremental process, building on a series of preceding reforms. The New Zealand and South African NQFs, on the other hand, as well as the English NVQs, were attempts to make a 'break with the past', and were therefore designed to be implemented as entirely new systems. In Lithuania implementation was described as initially incremental, led by academics, through what the case study described as an "open, discussion-based and incremental process of implementation". The study suggests that this approach was overtaken by state bureaucracy and a top-down, formal and legalistic approach, which has been exacerbated by hasty and impatient implementation because of a desire to articulate with the EQF by 2012. However, it does not seem as if either phase has had great stakeholder input. NQFs are clearly embedded in power relationships, and this affects implementation. For example, in Tunisia, ongoing dispute about the parity of esteem between vocational or technical training on the one hand, and schooling and higher education on the other is reflected in disagreement between different ministries.

The Sri Lankan model is interesting because it is highly centralized. Treasury is ensuring that institutions comply with NVQF requirements in order to get funding. An executive order of the Ministry of Vocational and Technical Training of 2005 makes it incumbent upon all Vocational Training Centres under the Ministry to be registered with the Tertiary and Vocational Education Council, that courses be accredited where NVQ standards exist, and that all trainees are placed for NVQ assessments. In addition, steps have been taken to ensure the development of centralized curricula and other support materials. It is believed that this highly centralized approach will ensure coherent policies and delivery mechanisms that are responsive to industries' and broader national social and economic development needs.

The Turkish model, on the other hand, is voluntary. However, it may be the case that some '*mandatory'* initiatives are introduced, such as, for example, requiring NQF certification for the award of tenders in areas where health and safety requirements are critical. The Turkish model also builds on a previous history of an Occupational Standards notion. In some cases, there are ongoing reforms that are at odds with the implementation of the NQF. For example, in Lithuania, Chamber of Industry, Commerce, and Trades, with the assistance of the European Social Fund, has been strengthening various approaches to assessment, yet, the NQF proposal is to remove its assessment monopoly.

A potential area of concern is that many countries are very dependent on donor aid and technical assistance. This is specifically mentioned in the case studies on Bangladesh, Botswana, Chile, Mexico, and to some extent in Russia and Sri Lanka. Clearly, many countries feel the need for both financial and human resources in this area, and no one interviewed argued against the value of international technical cooperation. However, some individuals interviewed raised potential concerns about longer-term sustainability, and whether sufficient funds would be available to maintain the systems which were being established. Another concern raised was that solutions sometimes seem to be decided upon

based on practices in other countries, without sufficient local knowledge, and the development of shared analysis of problems and potential solutions.

Chapter 8: Impact of NQFs

8.1 Introductory remarks

This section provides information about and analysis of some of the achievements, problems, and failures that are evident from the case studies. Each researcher looked for evidence of impact according to authorities, stakeholders, and researchers in the country they were researching, and also sought views of stakeholders and role players. Researchers were asked to look for evidence of who is using the various frameworks, and to what effect, in an attempt to gain insight into possible impacts which are not recorded by authorities. Some of the data is drawn from official evaluations, or evaluations of projects conducted by donor agencies. The possibility remains that evidence of successes exists in the countries, but was not found by our researchers.

In most of the case studies, it was too early to say whether or not the qualifications framework would achieve its goals. Nonetheless, some analysis of impact can be made in relation to the five earliest NQFs (the English NVQs, and the Australian, New Zealand, Scottish, and South African qualifications frameworks). NQFs in Botswana and Mauritius have also been implemented for some time, and there are some lessons available. While the Malaysian NQF is new as a national comprehensive framework, it builds on previous frameworks, and thus is drawn on to some extent. The Labour Competence Frameworks in Chile and Mexico have also been under development for some time, and thus analysis of impact and achievements can be made.

Of all the cases in the study, South Africa is the only one to have attempted a formal *impact* study. Various subsequent reports and research suggested limitations with the impact study (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009). A new study of the use and impact of the NQF has been initiated. Scotland has commissioned evaluations of its framework, and evaluations have been conducted in Mexico. As mentioned in Chapter 6, none of the case studies found information about impact evaluation strategies, although there are some monitoring and evaluation strategies for some aspects of the NQFs. Authorities in the countries in many cases did not have clear indicators at the start, or conduct baseline studies against which evaluations could be conducted. There are few, if any, places in which successes and failures of the framework have been brought together in a clear and accessible format for practitioners and policy makers in the countries themselves, or in other countries, to learn from, even in the countries that have been implementing NQFs the longest.

Clearly, in any policy implementation, impact evaluation is complex. NQFs, as discussed above, aim to change education and training systems in a whole range of different ways, in order to achieve desired effects. It may be difficult to measure an NQF's impact on the performance of an education and training system since the concepts and categories used to measure performance may be changed by the NQF itself. What constitutes success is also contested. In some of the case studies, successes were claimed or reported which, on analysis, do not seem to be clear gains. It is also difficult to clearly argue whether or not a change in the right direction can be seen as due to the NQF or to other policy or institutional reforms. For example, the case study on Scotland points out that much of what is perceived as the achievements of the Scottish NQF can be attributed not to the framework *per se*, but to the series of reforms which preceded it, and the sub-frameworks. The case study also argues that there has also been value added by bringing them together in a single framework. Thus, the lessons of the sequence of reforms that preceded the SCQF are part of the lessons to be drawn from the Scottish experience. To add to these difficulties, the aims of some of the frameworks are very high level and ambitious, whereas the frameworks themselves are rather narrowly defined and technical.

Nonetheless, strong claims continue to be made about what NQFs should be able to do. If policy makers in other countries are to learn from the experience of the earlier qualifications frameworks, it is necessary to have some sense of whether they have in fact achieved their objectives, and how. As discussed in Chapter 3 on methodology, this research did not start with one single set of indicators which could be used as evidence of impact. This study does not make any categorical claims or judgements about successes and failures. Nonetheless, where there is little publicly available demonstrated evidence of success, and where authorities were unable to produce evidence of success, this is likely to indicate that there may not be many successes in a particular area. In some cases, evidence of problems is clear—such as where qualifications were not used, or governments instigated policy reviews because they were dissatisfied with policies or policy implementation. In other cases, there is evidence of considerable criticism from researchers and stakeholders. What follows below is a discussion of **achievements and problems** in relation to the aims discussed in Chapter 5.

8.2 Improving the communication of qualification systems

As discussed in Chapter 5, the most general goal of the introduction of a qualifications framework is the creation of a nationally accepted single framework of qualifications, which makes qualifications in the country (or educational sub-sector) easier to understand, and avoids duplication and overlap of qualifications while making sure all learning needs are covered. Most countries in the study seem to have made some headway in this regard, although in all countries, the development of a single nationally accepted framework of qualifications is a work in progress—constantly under change and redevelopment.

The Scottish framework can be described as the most successful in terms of a framework which improves how the qualification system is understood. The framework is described in the case study as having broad acceptance within the educational community, and as having contributed to the development of a 'common language'. How this support is measured is not clear, but there has been no serious contestation, as has been the case in other countries. Although many of its successes are at least partially attributable to prior reforms, the case study argues that it was only when the different frameworks were brought together within a single comprehensive framework that the range of current *uses* of the framework become available. In Mauritius, there seem to be some gains in terms of clarification of nomenclature of qualifications, and relationships between qualifications do seem to be more explicit. The Australian Qualifications Framework is seen as having played some role in controlling the proliferation of new qualifications. The Australian study suggests that bringing different education systems together in a single framework can improve pathways between systems, and highlight where the problems with pathways are. The Australian Qualifications Framework has had the most impact on vocational education and training where it has contributed to the creation of a national vocational education and training system and national vocational education and training qualifications to supersede the pre-existing separate and disparate systems of the eight state and territory governments. There is more contestation over the qualifications themselves, as discussed in the following section.

In some countries, substantial problems have also been experienced in the attempt to create a single national accepted framework of qualifications; the degree of problems seems to be proportional to the 'tightness' of the framework, as well as the ways in which the outcomes-based model are conceptualized. Frameworks in New Zealand and South Africa failed to become nationally accepted, and had to be substantially changed. In South Africa, the framework was entirely changed, and all the associated mechanisms for determining standards and monitoring and maintaining quality have also been changed. The New Zealand framework was also substantially changed, but the original model survived as part of a broader register of qualifications, which is a list of all nationally recognized

qualifications in the country. Both countries have moved from a single model for the whole education and training system to a model with differences for different education and training sectors. The framework in Botswana also has apparently failed to achieve national acceptance. Although it is a government policy, government training colleges do not use it, let alone other providers. The same situation prevails in Mauritius with regard to the new outcomes-based qualifications that were designed for the technical vocational education and training sector.

8.3 Improving the transparency of individual qualifications through learning outcomes

As discussed in Chapter 6, the main mechanism to create transparency in most of the countries is the specification of learning outcomes or competency statements, as well as level descriptors. Official sets of levels have been created in all the countries, and level descriptors in most of them, and there are considerable expectations about what level descriptors can achieve. Little specific evidence was found that level descriptors are useful in making decisions about the location of qualifications on the framework, or about credit transfer, although in the Scottish case they do play a role in course planning and redesign, for credit rating, and for cross referencing. In South Africa, on the other hand, some of the educational authorities are quoted as saying that level descriptors were of no use to them. It seems likely that if there was clear evidence about successful uses of level descriptors, researchers would have discovered it, or had it drawn to their attention, given that level descriptors are described as such an important feature of the design of most of the frameworks in the study, and given that qualifications authorities were interviewed and their reports and evaluations were scrutinized by researchers.

The case study on Australia suggests that while training packages are strongly supported by employer and union industry peak bodies, teachers and some providers express more disquiet. A 2004 national review of training packages called for a ‘new settlement’ as a way of trying to build consensus around technical vocational education and training qualifications. In Malaysia, industry is reported to be relatively happy with the outcomes-based skills qualifications, although the qualifications do not allow much possibility of movement up the education and training ladder, because of their low level and lack of theoretical knowledge. Interestingly, the case study points out that the skills qualifications mainly use the ILO Regional Model of Competency Standards rather than the Malaysian Qualifications Framework, which is seen as offering little to the skills sector.

Although learning outcomes and competency standards are specifically introduced as the key mechanism through which qualifications are to be made more transparent, there are indications in some countries that the reverse effect is the case. In many of the countries, the implementation of outcomes or competency-based approaches seems to necessitate very elaborate and detailed rules and specifications. In South Africa, attempts to create transparency led to so much specification that standards became very narrow and very long—and inherently untransparent. It would be difficult to argue that the registers of qualifications created in New Zealand and South Africa have created transparency, as they are both lists of incredibly large numbers of qualifications—for example, there are 7,960 registered qualifications in South Africa, as well as 10,582 unit standards, or part qualifications. Similarly, in the English NVQs attempts to ensure transparency led to over specified and narrow qualifications. In Botswana, unit standards were seen as difficult to understand. Sri Lanka intends to provide a series of additional documents in addition to the competency standards, including curricula which contain specified learning outcomes.

What follows are more specific discussions on focused issues in relation to the aims which are associated with the desire for increased transparency.

8.4 Reducing the 'mismatch' between education and the labour market

In general case studies were not able to find evidence demonstrating that employers found qualifications easier to use than they were prior to the introduction of an NQF. Qualifications authorities, government agencies, and industry bodies interviewed did not have concrete evidence, evaluations, research, or even strongly articulated opinions that there had been achievements in this regard.

As discussed above, the intention in many of the countries is that once industry is involved in developing qualifications, the standards or outcomes will be more appropriate, more learners will get better jobs, and industry will get the skills that they require. In most countries there is *some* evidence of increased involvement of employers in *defining* qualifications and *identifying* valuable knowledge and skills. In all countries, participation of employers in the processes of identifying skills needs and defining outcomes and qualifications is mixed, with more success in some areas than others. Chapter 7 also discusses the finding that in some of the countries qualifications and unit standards/competency standards have been developed with industry involvement and have not been used—in the sense that no institutions have developed learning programmes against them, no one has been assessed against them, and no one has been awarded them. They are merely qualification specifications on an official framework.

While in some countries the development of new qualifications was claimed as an achievement by the qualification authorities, it is difficult to see how the development of unused qualifications can be an achievement. The studies on the English NVQs as well as the South African NQF suggest that employers seem to prefer the old qualifications, even when industry was involved in the design of the new ones. It seems that even where there is dissatisfaction with existing qualifications, they may be preferred over qualifications from newly-created authorities with no track record. In Mexico it is argued, based on employment patterns, that the new certificates up until 2008 had mainly not been recognized by the labour market, so certificates did not attain the intended "value" in the labour market. Both the productive and social sectors were said to trust certificates from the Secretariat of Public Education rather than those from the new CONOCER, despite the fact that industry was involved in the creation of the latter. New rules have been introduced so that the Secretariat of Public Education can back the competence certificates, in an attempt to promote a large-scale worker assessment and certification process. Sri Lanka also claims the development of new qualifications as an achievement—there are now 90 occupational standards, versus the previous 25. So far nearly 10,000 awards have been made against these qualifications, and it is too early to tell whether or not the problem of unused qualifications will occur, although the authorities are confident that it will not.

There are few specific data in any of the countries that show that qualifications frameworks have improved the match of supply and demand between educational institutions and the labour market, or that qualifications frameworks have raised the qualifications levels of the workforce, or led to more appropriate skills and knowledge being obtained by learners. The Australian study argues that the 'fit' between qualifications and occupations is very loose with the exception of regulated occupations (such as the electrical trades or nursing) where the fit is much tighter. Some limited (small scale) achievements in certification of prior or experiential learning could be seen as contributing to the latter. An officer from the Botswana Confederation of Commerce, Industry and Manpower (BOCCIM) argued that they find it difficult to sell the idea of unit standards to industry because few employers find it easy to translate them into practice. In Mexico,

despite many changes and re-specifications to the design of standards, they were seen as not transparent, and were interpreted in very different ways.[14]

This does not mean that there are no successes or no progress at all. The Scottish framework is used in some occupational and professional areas such as health service and banking, for example to give exemption from qualification requirements. The case study on Scotland suggests that Careers Scotland has to some extent used the qualifications framework to support its work, and that employers and professional bodies have used the framework for recruitment as well as planning and organizing training provision, but so far total activity has been small, and tended to arise out of specific needs. Similar use has been made of it in adult education and in niche areas of provision. In Botswana one employer is cited as having worked with the Botswana Training Authority to develop a specific qualification for their workplace, and being happy with the results in terms of what learners knew and could do after having been through the training programme and awarded the qualification. In Sri Lanka a few employers are reported to have conducted assessment against the new standards, and to have linked these to salary scales.

In the case of the English NVQs as well as the competence framework in Mexico, the new qualifications were used in specific sectors. These 'successes' have been based on strong human resource development policies in the workplace, or, in one of the English cases, strong professional bodies which influence qualification design and maintain examinations based assessment. However, these developments have not been quantified. As discussed above, one company in Botswana felt that qualifications acquired were useful, and a few employers are cited in Sri Lanka as having found the assessment against competency-standards useful. However, it is a negative sign that BOCCIM continues to offer courses to its member industries without accreditation from the Botswana Training Authority. Furthermore, most of the few unit standards which have been awarded in Botswana are generic ones (using computers and knowing about HIV/AIDs) with no direct workplace application. Employer representatives interviewed thought they were not useful, and representatives from the Ministry of Labour in Botswana argued that there is no evidence to suggest that investment in 'core skills' (e.g. computer literacy) assists individuals to find jobs, or reduce their levels of poverty. Similarly, in Mexico, a competence standard for computing is the most awarded, followed by *advising on housing credit, child care in child care centres, training provision face-to-face*, and *training course design and implementation*. What the role of such 'generic' or 'core' skills are or could be in relation to employment is not an issue which this research could explore. It is mentioned here because individuals in Botswana felt that the unit standards awarded against the Botswana NQF did not have value in the labour market, and because if NQFs and competence frameworks are to improve relationships between education and training

[14] Information provided to the ILO by CONOCER in May 2010 updated the findings in the Mexico case study which relates information from 2003 through 2007, and explained three main components of the reform for "A New CONOCER for Mexico" that was launched in 2008: empowerment of sector competence committees to define the Mexican human capital agenda for competitiveness; construction of new mechanisms and instruments to improve education and link education and training more clearly to the world of work; and the redesign of the assessment and certification structure. The new tripartite board of CONOCER includes line ministries in education, labour and economy, representatives of three major employers' confederations, and the general secretaries of three major trade union confederations, thus strengthening social dialogue in the area of training and qualifications. The restructuring is credited with increasing the number of competence certifications issued by CONOCER from 12,000 in 2007 to 60,000 in 2008, and to 80,000 in 2009 in spite of the impact of the economic and financial crisis in Mexico.

provision and labour markets, it seems worrying that the competencies or unit standards directly relating to workplace requirements are not used, and the more generic ones are.

In many countries, policy makers argue that industry will come on board once they realize the value of the competency-based approach. But it seems from these studies as if employers do not behave as policy makers desire/assume they will. For example, by 2002 in New Zealand, 45 per cent of employees were not covered by an Industry Training Organization, the structures designed to ensure training happens in different sectors of the economy. This was either because many employers did not believe that the Industry Training Organization met their needs, or because they relied on the university system to regulate qualifications (i.e. employers had faith in the formal education system, and not the new qualifications, despite them being so-called industry-led). In many instances industry was reluctant to be involved in training that could lead to demands for higher wages. The New Zealand study points out that many firms do not seem to see improving the skill of their lower level workers as part of their competitive strategy and that many areas of the labour market do not require such workers to have high levels of skills; this is probably an issue which applies elsewhere as well. In Malaysia many companies, particularly smaller ones, prefer to employ trained workers or outsource rather than organize training, and individual and worker demand is also seen to be weak—the provision of publicly-funded training places, including those for redundant workers, has been met with weak take-up.

There is some evidence that even where industry does play a strong role, industry-led systems have mixed reactions from employers themselves (who are of course, very heterogeneous in all countries). For example, the case study on Australia cites research suggesting that while those employers who use the technical vocational education and training system report that they are satisfied with the results, some employers, particularly in small and medium enterprises, find the system too complex. The Australian study quotes research showing that employers do not value qualifications in the same way that the technical vocational education and training sector does, and indicating that developers are "not in touch with the need of industry".

The problem of over-specified and narrow qualifications was mentioned above as a problem of lack of transparency. However, it is also a problem for quality, as in Botswana, the English NVQs, and in South Africa, the newly developed qualifications were seen as very atomized, and focused on very narrow skills. The Australian case study suggests that some researchers also find this to be the case in Australia. Both Mexico and South Africa report finding the recurrence of courses of dramatically varied quality and standards being based on the same outcomes. Of course varied quality is not a new problem, or one that is simple to solve; however, this issue is mentioned given that many countries hope that the specification of clear outcomes or competencies will solve this problem.

8.5 Credit accumulation and transfer

With regards to articulation amongst educational providers there is greater evidence of success, although there are also suggestions that qualifications frameworks have in fact reduced learner mobility in some countries. In countries where there have been successes, qualifications frameworks can be seen as playing some facilitating role in improving pathways, although they do not replace institution-to-institution partnerships and multi-institutional arrangements. Again, the Scottish case study claims some successes. The NQF is described as having introduced a common national 'language' to support access, transfer, and progression, possibly strengthening existing arrangements or making them easier to use. The NQF is described as *associated with* (although not necessarily the main causal mechanism in) positive developments in access, progression, and transfer. The framework has provided a tool for creating new pathways between the three main sub-frameworks, although there is no clear evidence on how widely used this is.

The Australian framework has, to a limited extent, provided the basis for dialogue between sectors and been used to underpin credit transfer agreements and pathways. However, the case study on Australia suggests that the Australian Qualifications Framework can be seen as entrenching sectoral divides, because vocational education and training qualifications are output-driven, based on competency-based training, whereas higher education qualifications are based on academic requirements established through shared understandings of syllabuses, processes of learning, assessment, and outcomes. The government is concerned with the limited success of pathways and credit-transfer, and it looks set to introduce changes to the Australian Qualifications Framework. In Botswana, the existence of a framework only for technical vocational education and training is seen as making technical vocational education and training even more isolated, as there are no clear pathways for articulation. Similarly in Russia, although the NQF is only just being developed, there is concern that there will be a growing gulf between those qualifications operating within the NQF (mainly technical vocational education and training) and those outside of it (secondary and higher education).

The Malaysian Qualifications Framework does not assist in allowing or facilitating qualifications to 'talk to each other'. The framework only allows 30 per cent credit transfer between qualifications, and the sub-framework for skills does not allow for any credit transfer within the skills qualifications. Provider representatives interviewed argued that the epistemological and learning practices are too different for credit transfer to be possible, and that this is exacerbated by the educational backgrounds of the learners. Credit transfer is ultimately decided by institutions, and there is very little credit transfer between skills and the other two sectors.

The studies (particularly on Scotland and Australia) show that relationships and arrangements between institutions, as well as trust which is established over time, are crucial to ensure movement of students between educational institutions, whether within a single educational sector (for example from one higher education institution to another) or from one sector to another (for example from technical vocational education and training to higher education). While qualifications frameworks *may* play some role in providing a common language and formalizing these relationships, they cannot replace relationships of trust.

8.6 Recognition of prior learning

Evidence of recognition of existing skills, knowledge, and abilities of workers and potential workers is small scale in most of the countries in the study. The Scottish case study suggests that the Scottish NQF has been used to some extent in the recognition of prior learning, but that this is not quantified, and the Australian and South African studies also provide information about certificates which have been issued for prior learning. Sri Lanka has made 1,950 awards of certificates in this way, and in Chile and Mexico some awards were made to workers and potential workers based on recognizing prior learning. In Chile worker organizations involved in pilots have positive views about the experience, and suggest that workers feel proud of certifications obtained. The assessments were conducted through workplace experts, with no role for training institutions. Technical problems with the legal status of the Labour Competence Framework have meant that the certificates are not always recognized by educational institutions. In Mexico, the cost of assessment was seen as a barrier to the recognition of prior learning, as generally the most disadvantaged people constitute the potential demand of this service. In Chile, while workers were assessed as competent, there are legal complexities around the acceptance of the certificates.

In Botswana, standards were developed for traditional dancers; a group of traditional dancers was assessed, found competent, and given certificates. However, it is hard to see what advantage this gave the dancers, who were already working as traditional dancers, and

were not given access to any other training or educational programmes based on the acquisition of these certificates. Further, this project was government-driven and funded, and very small scale.

In Malaysia the focus is on the recognition of prior learning for access to education and training, and not for certification for other purposes. While there is emphasis given to the recognition of prior learning at the level of rhetoric and policy, there are few concrete policies or institutional arrangements in place. In Tunisia, an approach to validating prior experience has been developed, and a group of trainers, specialists, and professionals has been created to put mechanisms in place. In Russia, while there is a strong emphasis on the recognition of prior learning routes to qualifications in theory, so far the sectoral qualifications frameworks which have been developed insist on formal education qualifications, and the proposed NQF also emphasizes formal education and training routes: there is a table maintaining links between qualification levels and educational levels. The existence of the document can be explained by the fact that the formal education plays a significant role for the Russian population. According to the Russian Law on education a learner can get the state certificate or diploma recognizing his/her qualification only through the formal education.

In Lithuania there is concern that there are no appropriate competent professional organizations and stakeholders who can evaluate and award certificates for specific competences as well as evaluating and awarding qualifications for knowledge and skills acquired informally and non-formally.

8.7 Access

The case study on Scotland suggested that the SCQF is associated with gains with regard to access. Other than that, the studies provide some indirect evidence that NQFs may have led to increased access, in so far as there is evidence of awards based on the recognition of prior learning, as discussed above. The Lithuanian study suggests that the NQF may not solve what is described as one of the current problems of access—that graduates of vocational higher education are required to undertake ‘compensatory’ studies before they can access Masters programmes.

The one area in which qualifications frameworks could play a clear role is where there are legal regulations with regard to qualifications which are demonstrably irrational—in other words, where certain qualifications do not allow access to further learning, even though it can be demonstrated that the individuals have the necessary skills and knowledge. Many of the case studies cited the fact that learners from technical and vocational programmes are often unable to move to higher education. However, the studies were unable to discover whether the problem was an arbitrary qualification requirement, which could be removed through a framework, or a problem with regard to the nature and quality of the curricula of the vocational programmes, which would be far more difficult to solve; neither did researchers manage to find specific evidence that such problems had been solved. In Sri Lanka, an attempted solution to this problem is the creation of a new university specifically for technical education.

Given that most studies suggest fees, and lack of basic education, are key problems with regard to access, it is not clear that qualifications can play a major role in this area. With regard to the fees, in Chile, for example, until very recently, students in technical training got very little assistance from the state, and even today they receive less in loans than those in higher education. This in turn leads to underfunded institutions, and makes it harder for poorer youth to access training and enter the labour market, and creates disincentives for people wanting to follow technical careers. Besides fees, the opportunity cost of not working may be insurmountable; this is specifically mentioned in Mauritius. With regard to the lack of basic education, case studies cited two problems: either learners

lack basic literacy and numeracy, and therefore struggle to access training programmes, or, graduates from training programmes lack the knowledge base that they would need in order to access further education and training. In Bangladesh, the designers of the NQF have offered a solution by creating qualifications at lower levels—called 'pre-vocational' qualifications. However, it is not yet clear who will offer learning programmes that will lead to these qualifications, and who will award the qualifications.

8.8 Quality assurance systems and new regulatory, assessment, and certification mechanisms

Australia and New Zealand succeeded in their aim of creating highly-marketized, competition-based technical vocational education and training systems, and in New Zealand, the accreditation system created through the outcomes-based qualification model was seen as successful in terms of leading to the emergence of new providers. It is important to note that both these countries are wealthy, developed countries, with high levels of expertise and professional provision of training. Also, in Australia, with its strongly marketized model, around 75 per cent of all students and 84 per cent of provision is still through state colleges. It is not clear from the case studies whether the achievement of a marketized competition-oriented system necessarily achieved technical vocational education and training delivery which is higher quality, more efficient, or more equitable, and there is some contestation on this area in the countries. Problems are evident in Australia at the moment, particularly in relation to its international student market, and the government is seeking to tighten regulatory and quality assurance arrangements. Malaysia, on the other hand, seems to be achieving its aim of introducing more regulation for its already highly-marketized system.

Other countries have had more difficult experiences. Experiences in Botswana, Mauritius, and South Africa suggest that the decentralization which countries tried to achieve through the development of outcomes-based qualifications is a risky road, and relying on an accreditation model in the context of weak and uneven institutions is difficult. The South African case study argues that while registration and accreditation processes are important, they proved costly, time consuming, and ultimately ineffective, in the absence of strong educational institutions and more traditional ways of attempting to ensure quality, such as prescribed syllabuses and centrally-set assessments (outside of the university system). A more serious problem experienced in South Africa is a simple lack of provision in many key areas. While the hope was that once qualifications had been specified, provision would emerge, in many cases this did not happen, and provision remains primarily based on those institutions which already existed. In Mauritius, the accreditation system is seen as stifling responsiveness without adding value, as all short course providers have to get their courses accredited—in other words, any provider wanting to develop a short, customized, focused course for a specific short-term process has to go through quality assurance processes which could take some time, even though in nearly all cases courses do end up obtaining the necessary approval.

In Turkey, although there is confidence in the new proposed systems, there are some concerns that there are currently no institutions which have been accredited for any of the key functions, while the new system depends heavily on accreditation. In addition, there is some concern about the capacity of the accreditation institutions, and concern that once institutions and organizations start applying, bottlenecks might occur. There is also a concern that institutions may not want to be accredited to conduct assessment and certification, where revenues from these activities may not compensate costs.

In Chile and South Africa complex governance arrangements emerged from attempts to create quality assurance and accreditation systems, sometimes in contradiction with existing systems. This has been flagged as a possible concern in Russia. Another difficulty of this type of approach, as experienced in Mexico and South Africa, is that institutions and

individuals needed to be certified as competent assessors in order to award qualifications, but their competences had to be evaluated by institutions or individuals which had not yet been found competent, or accredited to perform these functions. Both countries also found that their accreditation systems tended towards bureaucracy, without real impact on educational quality. The case studies of the older frameworks suggest that it is difficult to expect new institutions to assess and certify.

8.9 Reforming delivery of education and training

In Scotland the NQF is associated with more flexibility in delivery, as the development of the NQF was based on previous reforms which focused on increasing flexibility through modularization. The case study reports some tension, though, between the flexibility provided by modularization and the rigidity created by the greater standardization and control involved. The countries which attempted to use unit-standards or competency-standards to create flexibility have a mixed picture. The system in Australia is described as having some successes, but many difficulties and much contestation. The unit standards in Botswana and South Africa were not seen as contributing to flexibility. An employer interviewed in Botswana argued that processes in the workplace change more often than formal standards can accommodate. In South Africa, unit standards became rigid requirements which made educational provision difficult.

8.10 Improving parity of esteem for TVET and workplace-based qualifications

None of the case studies was able to find any specific evidence demonstrating that the status of technical vocational education and training qualifications had improved since the introduction of the NQFs. It is possible that status has improved but evidence of it has not been recorded or researched in the countries; being a matter of perception, status is obviously not an easy thing to research. However, it is likely that changes like greater influx of learners into programmes previously seen as less desirable would have been observed, if they had in fact occurred.

8.11 Increasing private sector financial contributions to TVET

The idea in most of the countries is that through the creation of an NQF, industry can be encouraged to share the cost of technical vocational education and training. In the countries with older NQFs, there is little evidence that this has happened. In nearly all countries, the problems and weaknesses of technical and vocational education and training are attributed to systematic under-funding. This looks set to continue in some of the countries—in Malaysia, for example, the focus is clearly on higher education and professional training, despite the fact that 80 per cent of the workforce is low skilled. The focus seems to be on changed modalities of funding and accountability (and in many instances, doing more with less), rather than injecting new funds into the system, although donors are providing funds for reform at a systemic level. There are indications that new government money may be injected into technical and vocational education and training in Bangladesh, Chile, Sri Lanka, and Tunisia.

8.12 International recognition and labour mobility

The case studies did not provide clear evidence of improved international recognition or mobility because of the existence of a qualifications framework. This does not mean that no evidence exists in these countries, but that officials interviewed, and official and

research documentation which was included in this study did not provide such evidence. Critical readers of earlier drafts of this report were surprised by this and suggested that favourable evidence in this regard should be available in Australia and New Zealand, but researchers in these countries were unable to locate such evidence, despite additional requests and attempts in this regard. The Scottish framework is being aligned to the European Qualifications Framework, and the other European countries are directly basing their frameworks on the European one. Whether this improves mobility and recognition remain to be seen. In Lithuania some experts interviewed were concerned that if the NQF did improve mobility, this could be negative for the country, as it could endanger the national and ethnic identity of Lithuania, and endanger its economic development because more mobile skilled workers will move, thus undermining Lithuania's workforce further. However, a trade unionist representative interviewed had a very different opinion, arguing that increased mobility (via the NQF or the EQF) will help employees improve their socioeconomic status and increase their bargaining power in the field of industrial relations.

For a consideration of recent research on qualifications and international recognition, see Johnson and Wolf, 2009a, Special edition of *Assessment in Education: Principles, Policy & Practice*, volume 16, issue 1.

Chapter 9: Reflections and discussion

9.1 Reflecting on the difficulties

The case studies in this study, comprising many of the countries which are most advanced in terms of qualifications framework internationally, clearly reflect considerable difficulties. In many cases, these difficulties are related to very specific contextual factors, as well as institutional arrangements and traditions in the countries, which this research could not investigate in great depth. What follows is an attempt to reflect on where there seem to be patterns in the problems, and draws also on other research related to NQFs.

Contexts, tensions, and the roles of stakeholders

Raffe (2009b) suggests that NQFs are more likely to be successful if, while attempting to implement the intrinsic logic of the new reforms, they recognize the institutional logics that exist in the countries. The Malaysian case study argues that NQFs are inherently dependent on established institutions, and by drawing on the strengths of institutions, NQFs can be stronger. Other commentators have discussed 'path dependency', and how new policies seldom succeed in breaking a particular country out of a particular path, as education, training, and labour market relations are deeply embedded in institutional, social, and economic relationships and realities. These contradictions are evident in some of the case studies.

For example, the case study on Russia argues that there is a strong culture of valuing formal education, and even regulatory frameworks which specify that qualifications must be linked to formal education and training. This conflicts with the desire to recognize prior learning (although it is obviously important to value education strongly). Similarly, in Lithuania, educational awards are very strongly linked to time spent studying. There is no experience in developing or offering modular-based programmes. While the study on Lithuania suggests that this is a challenge that needs to be overcome, there is much contestation in research literature on the value and possibility of modularization. In addition, in Lithuania there is a history of centralized systems, a command economy, and little social dialogue. The case study suggests that even industry at times argues that government should regulate human resource development with state planning, based on the old central planning models. There are difficulties for employers to be involved in training or supporting technical vocational education and training (TVET) schools unless all employers buy-in to it, as poaching is a concern, and working with TVET schools is an investment in time. (However, poaching is even more likely to be a problem in more free market systems). Similarly, Sri Lanka has a history of a large public sector run economy with centralized systems.

There is a 'chicken-and-egg' kind of problem with regard to stakeholders in many of the countries: the NQF depends on the effective participation of social partners and stakeholders. But the lack of participation of social partners and stakeholders is the problem that the NQF is trying to solve. Furthermore, the definition of 'stakeholders' may be contested. For example, the case studies of New Zealand and South Africa show how bodies set up to administer and develop a qualifications framework, or sub-framework, become stakeholders in their own right—with the accompanying vested interests. This could explain at least partially why qualifications frameworks survive in the context of reviews and dissatisfaction from other 'stakeholders' and 'role players'.

In many of the countries in the study the economy is dominated by the informal economy. The need for qualifications in this context is arguable. The case is sometimes made that recognizing workers' skills, and giving them qualifications will help them move

to the formal economy, but this presupposes that there are jobs in the formal economy to which they can move. Many other policy interventions would be required in order to build the formal economies of countries. On the other hand the OECD (2009) argues that better qualified individuals are more mobile and have more likelihood of succeeding in the informal sector than less skilled individuals.

Some of the case studies suggest that the various aims of qualifications frameworks can be in tension with each other. In Malaysia, for example, industry is largely happy with the skills qualifications, but policy makers feel that learners need pathways to higher levels of skills, and that the current qualifications set-up does not allow this. But improving pathways between TVET and higher education may be in conflict with improving pathways between education and training systems and the labour market. In Scotland, as Higher National Diplomas became more accepted as a route to a degree, they started to lose their character as an exit qualification leading into employment. This is a tension that many countries have to face. Improving the possibilities for progression from TVET to higher education is a major way of improving the esteem with which the former is held in society, and the likelihood that learners will enrol for TVET programmes in countries where it is not well regarded. This is a feature of all countries, even those with highly respected systems of TVET; however, it is likely to be particularly true for developing countries as in the case of South Africa. However, equally important, or perhaps more important, may be changing the conditions, remuneration, and career paths in the working world.

Chapter 5 mentions that some countries see NQFs as ways of getting employers to contribute to the financing of training, assessment, and certification. The difficulties with employer involvement as well as lack of take up of qualifications and competency standards is cause for concern about the likelihood of this being achieved. It is also in contradiction with the fact that employers see NQFs as ways of getting governments to publicly fund assessment systems for the workforce. Another contradiction with regards to financing is that while NQFs are argued to be necessary to increase access to education and training, they are often associated with the introduction of user fees, both for training, and assessment and certification.

There is an inherent tension between the desire to classify and describe all competences and all qualifications versus the desire for simplicity and transparency. Some frameworks end up with thousands of qualifications, and detailed stipulations of occupations and qualifications at all levels leads to very long and cumbersome documentation.

The desire for short courses and responsiveness may be in tension with the desire for more regulation, standardization, and quality in the context of many different providers. While unit standards or competency standards are supposed to lead to flexibility, in some cases they are seen as rigid. The desire for making educational programmes shorter in order to meet short-term requirements of the labour market (described as cost-effective quick start/accelerated short-term employment-oriented training activities for priority jobs) may conflict with the idea of improving quality, and may make it less likely that completing learners will acquire sufficient basis to move up the education and training system. Some countries are mainly using NQFs as a part of developing lower level artisans. This could be part of broader efforts to expand training opportunities, but in some ways appears to contradict the notion of the ‘knowledge economy’.

Learning outcomes

Claims about the role of learning outcomes in reforming qualifications and thereby education and training systems are at the heart of the development of NQFs. It is useful, therefore, to reflect on what light the studies shed on this matter, as well as how other research can explain the relative successes and failures of the frameworks in question. The

study suggests that the problems experienced in some of the countries is linked at least in part to a particular use of learning outcomes.

All qualifications are in some sense concerned with outcomes—because they represent a statement about what the holder knows and can do, and are an outcome of *learning*. Educational 'outcomes'—such as, how many people have qualified to become engineers in a particular year in a particular country, or what the graduation or throughput rate of a particular institution is, or what levels of mathematical ability are obtained by school students—are obviously of concern to all governments. And all NQFs seem to work with the notion of learning outcomes, albeit in different ways. But, as described above, in many instances NQFs attempt to use outcomes in a very specific way, as providing an exact and transparent description of occupational competences, and at the same time, providing an exact and transparent basis for the development of learning programmes, for the conducting of assessment, and for evaluating educational quality.

Many of the current studies (as well as other studies on NQFs and competence-based assessment)[15] show that when outcomes are used in this tight manner, and when very many expectations are placed on outcomes or competence statements, they tend to proliferate over-specified, detailed, unwieldy, narrow documents which are supposed to be the basis for assessment. The very length and complexity of the standards makes them unintelligible to anyone other than those involved in standards design. This is often the reason for qualifications not being used at all. Where they are used, it leads to narrow forms of assessment and fragmented learning experiences. In theory the problem of over-specification could occur in any area or practice which is regulated by performance statements. But the specific problem within education and training is the structure of educational knowledge. Researchers have also demonstrated how a rigid separation of outcomes and competences from syllabuses or learning programmes leads to the marginalization of educational knowledge.[16] Forcing curricula to be 'designed down' from outcome statements trivializes knowledge, and reduces it to pieces of unrelated information. This may explain the low take-up of such qualifications in general and particularly at higher levels. It is also in direct contradiction to policy goals related to 'knowledge economies' as well as broader notions of raising educational levels of the workforce, as it leads to narrow qualifications without theoretical components.

The case study on the English NVQs points out another critique made in the United Kingdom: that assessment is always about making inferences on the basis of performance. Even assessment in workplaces does not show how a given candidate will perform when the assessor is not present, or in a slightly different situation, or even, simply in a repeat of the same task. In an outcomes-based framework assessors have to draw inferences about the underlying competence of the candidate, based on their performance. It is never a straightforward matter setting an assessment task, or judging a candidate on one. There may be situations in which assessment which concentrates on knowledge and understanding may provide better grounds for inferring competence than a specific number of observable performances, and implies that this is more likely to be the case the higher up the qualification ladder one proceeds. The case study also argues, in direct contradiction to the claims often made by advocates of outcomes-based qualifications, that knowledge of the learning process which leads to an outcome may in many instances be essential in order to make a reliable judgement about an observed performance.

[15] See for example, Wolf (1993, 1995, 2002), Allais (2007a, 2007c), Young (2005), Lugg (2007), Wheelahan (2008b, 2008c)

[16] For example, Allais (2007b, 2007c), Wolf (2002, 1995).

There seems to be some acceptance that the competency-based training model or a strong outcomes-based model will not work across all areas of schooling and higher education. In New Zealand and South Africa where it was attempted, ministries/departments of education have reverted to syllabus/curriculum-type models. However, the NVQ experience, as well as the problems experienced in Botswana and Mauritius, suggest even when this approach was confined to TVET it has experienced difficulties. With regard to the Competency-Based Training System in Australia, reviews have argued that the training packages are too detailed and lengthy, and are not user friendly to educators, and that they have outlived their usefulness. The Labour Competence Framework experience in Chile and Mexico also suggests that this approach has experienced difficulties even for the much more limited aim of enabling recognition of existing skills in the workforce. And the Australian and Botswana studies suggest that if this approach is used in TVET and not the rest of the system, this introduces a new division between schooling and TVET and between TVET and higher education, and that this could further accentuate the low status of vocational qualifications.

These difficulties raise questions about the possibilities for NQFs. Can NQFs be designed without learning outcomes? Can broader notions of learning outcomes be used? Can NQFs be developed through broad statements of outcomes or competencies that avoid the problems of the over-specified models? A few tentative suggestions can be made. It may be the case that NQFs are inherently linked to outcomes (or some other generic form of description which leads to similar problems). It does seem as if broader notions of outcomes or competence, either, say, in the form described in the Scottish case study, or in the traditions in countries such as Germany, seem to be better. 'Better' here is used in the sense that they have broad acceptance, and seem to be used. The Scottish case suggests that outcomes can inform and aid professional judgement, although they cannot replace it. This broad understanding of outcomes cannot, and usually does not claim to, achieve the specific claims about transparency of qualifications claimed by some NQF advocates (as discussed in Chapter 2). This implies limitations to what NQFs can achieve. In the development of NQFs the only alternative to outcomes or generic descriptors of levels is for levels of qualifications to be determined primarily by accepted qualifications, and accepted relationships among them. Of course this is a circular solution, and does not provide a mechanism for resolving disputes. On the other hand, in practice, this approach is used to some extent even in outcomes-based NQFs; in practice, level descriptors and outcomes do not replace implicit and generally accepted judgements, although they may make it possible to challenge these judgements. Decisions in the end revert to professional judgement as well as power relations, and perhaps emphasis needs to be placed on trying to ensure that the former dominates the latter.

Accreditation systems in the context of weak provision of education and training

The case studies on the English NVQs, Australia, Botswana, New Zealand, Russia, South Africa, Sri Lanka, and Turkey, suggest that governments tried or are trying to use outcomes-based qualifications frameworks to shift what was/is seen as 'provider culture' or a 'provider captured' system, to a 'user-led' or competition-based, marketized system. This can be located within broader trends in public sector reform, such as new public management.[17] In some of the countries, this is based on commitments to neo-liberal market policies and principles. In others this is less evident or less explicit. In South Africa, for example, there was a strong focus on redress, equality, and democratization. With

[17] For example, Strathdee (2009), Allais (2007a), Phillips (1998).

regard to the English NVQs, the broader neo-liberal programme of the government was more explicit, as government was directly trying to reduce the influence of trade unions and increase provision, competitiveness, and efficiency, through a marketization strategy. In Australia, unions were a key part of the process that led to the establishment of the qualifications framework, but even here policy aimed to explicitly develop a market in education, and 'industry-led' competency-based qualifications that were independent of educational providers in TVET. Here Scotland is an outlier—although it has not been free from neo-liberal influence, it has a stronger tradition of free public provision of education, and its more consensual political culture may have allowed educational providers and professionals to retain more influence. Sri Lanka has a strong government-based delivery system, but is trying to move it to a greater regulatory role for government, and sees the NQF as part of an accountability mechanism.

What is common in many cases is an emphasis on treating state and private institutions in the same way through contractualization and the introduction of accountability measures in the belief that this will increase efficiency and effectiveness. However, research also points out that managing contracts, and evaluating the performance of contracted institutions, whether public or private, demands enormous regulatory capacity from the state. It may lead to many additional expenses for the various players in the education and training system. For example in Lithuania, each school would have to contract assessing institutions to conduct assessment for each training programme. In addition, it could lead to inefficiencies and perverse consequences, such as lack of coordination among the different systems. For example, in Mexico because the criteria to become an assessing or awarding centre are stringent, there are few bodies, and these bodies charge high prices for assessment. CONOCER would like to relax the criteria, to widen the assessing and certification possibilities, but there are concerns about relaxing standards. Industry representatives interviewed in Lithuania argue that competition between providers may be unhealthy, and that the introduction of a market-based competition-based system for its own sake can compromise on experience and know-how of established bodies, implying a big waste of financial and human resources. For example, with regard to assessment, the Chamber of Industry feels that it has exceptional experience in assessment of competences and has a regional structure which covers the country.

One of the difficulties with this approach is that setting up a viable accreditation system is a costly endeavour, and is based on the assumption that bureaucracies which are putatively incompetent at delivering good training are likely to be good or at least better at contracting it out and managing quality, or, that new institutions created for this purpose will be able to do so with no track record or institutional history. Conducting meaningful institutional quality assurance is very costly and time-consuming, and demands high levels of professional capacity amongst staff. In the context of TVET systems which are underfunded, countries need to make serious choices about the contribution that quality assurance can make to improving quality, and the extent to which their focus should be on improving institutional capacity.

Assessment and certification are important factors in education and training systems, and NQFs need to be developed bearing this in mind. The model (as in the South African NQF and NVQs) of individual assessors and verifiers turned out to be complicated and unwieldy, and was not successful in guaranteeing reliability and quality. In many instances, there has been a return to national examinations. In New Zealand various problems were raised with standards based assessment, as parents were worried that it would lower standards by reducing student motivation to achieve, and examinations were reintroduced.

A possible problem with a focus on outcomes, quality assurance, and accreditation, is that they could shift attention away from learning processes, and the need to build and support educational institutions. Quality assurance systems do not *build* quality; they build procedures that claim to measure quality. But they can end up being a substitute for building quality. Poorer countries, and countries with weak institutions, may find

themselves in trouble if they rely on these types of mechanisms. This issue may be most stark in TVET, where considerable infrastructure is required in order to ensure quality. Models which narrowly link funding to learner enrollments and outcomes-based qualifications may run into difficulties, as they may not enable institutions to take a long-term perspective, or provide the necessary emphasis on building and developing institutions. NQFs are often introduced with the language of 'autonomy' and 'empowerment' of TVET institutions. But 'autonomy' without increased capacity, without increased financial support, and with a series of new 'accountability' requirements may turn out to be rather less empowering for institutions than is claimed, and governments may not get the desired results.

This critique implies that it may be more useful for poorer countries, or countries with weaker education and training systems, to concentrate on building or supporting institutions that can provide education and training. Similarly, poorer or weaker states should be cautious when assuming that adopting regulatory models which rely on contracts and accountability mechanisms will solve the problems that they have had in delivering education and training.

Policy borrowing and internationalization

Internationalization of qualifications and education systems is clearly an important issue raised by this research, and one which the current report cannot do justice to. As Stephen Ball (1998, p. 126) suggests:

> … national policy making is inevitably a process of bricolage: a matter of borrowing and copying bits and pieces of ideas from elsewhere, drawing on and amending locally tried and tested approaches, cannibalizing theories, research, trends and fashions and not infrequently flailing around for anything at all that looks as though it might work.

Benjamin Levin (1998, p. 139) points out that:

> New agents of disease tend to spread rapidly as they find the hosts that are least resistant. So it is with policy change in education – new ideas move around quite quickly, but their adoption may depend on the need any given government sees itself as having. Although many people may be infected with a given disease, the severity can vary greatly.

As is clear from this report, as well as from available literature on qualifications frameworks, policy borrowing (and perhaps sometimes, policy learning) is a major factor in their spread. This applies both to the decision to adopt an NQF as well as the design of frameworks. Models, titles and formats of qualifications, level descriptors, statements of competence or unit standards, structures, processes, and sometimes entire NQFs are 'borrowed'. The borrowing country tries to replicate what it saw in the original country, sometimes adapting it, usually because official documents in the origin country make strong claims about what policy makers hope will be achieved. But, in most instances, what is not available from the official documents, or even easily found out, by the policy borrower, is whether or not any of the aims of the NQF in the origin country were achieved. If some of the goals have been achieved, what is not apparent from official documents is what led to success—what were the conditions, contexts, other policies in place, processes, and so on, in the origin country.

The English NVQs are widely seen as a problematic model within the United Kingdom, and have been changed many times since their introduction. One of the consequences of the English NVQ model was to perpetuate and even accentuate a view of vocational qualifications as inherently inferior to those obtained at school or university. One of the striking findings of this research, therefore, is how much this model has influenced other countries, and how it continues to be used in some of the most recently developed NQFs. It may be significant to note the obvious: that the first five NQFs, and the

models of NQFs which have spread to many other countries, emanate from five English-speaking Commonwealth countries all of which have liberal market economies, which influenced each other and which have education systems with a partly shared history. But the spread has not been limited to the Anglophone world, as the Labour Competence Frameworks in Chile and Mexico both were very influenced by the English NVQs. It also seems possible that, paradoxically, countries with more regulations of occupations may be seduced by the 'anglo' model, which claims to provide a neat fit between education and training and labour markets.

What is equally striking is how the same problems seem to have occurred in many of the countries which have adopted this model. The NQFs in Botswana, New Zealand, and South Africa, the vocational component of the NQF in Mauritius, and the Labour Competence Frameworks in Chile and Mexico have all encountered considerable difficulties, and all of them have very few concrete achievements to show. Like in England, Wales, and Northern Ireland, in all these countries, qualifications were created, but very few used. Providers in the main continued offering existing qualifications. However, policy makers and technical experts elsewhere, such as in Bangladesh and Sri Lanka seem to be confident that their use of this model will overcome the problems that other countries have experienced. There are, of course, differences in how these countries are adopting NQFs, as will be discussed in the following section. For example, centrally-developed curricula and assessment instruments are an important feature of the Sri Lankan system, as opposed to the decentralized assessment attempted through the English NVQs and South African NQF.

Often, as the case study on the English NVQs points out, a policy is designed to overcome or alleviate particular problems that have arisen in a particular historical and political context. But, when aspects of the policy are adopted elsewhere, these contextual factors are easily forgotten or remain unknown. The Botswana study argues that Botswana borrowed models from countries like New Zealand or South Africa, without taking time to learn what happened in those countries. In Lithuania and Russia, stakeholders are described as tired of reforms which are perceived as borrowed, and tend to be passive and indifferent to them, or see them as leading to more administrative work and bureaucracy.

The case study on Scotland suggests that the Scottish framework has gained "an almost moral authority among NQFs". Aspects of the Scottish framework are used (sometimes in an adapted form) around the world. But what appears in an official policy document will inevitably play itself out in different ways in different contexts. For example, in addition to the fact that the Scottish qualifications framework was developed incrementally, over a very long period of time, it was developed in a ***context*** with strong institutions, a relatively strong economy, and relatively high employment, especially compared to many of the developing countries which are now attempting to develop NQFs. Scotland also has a small population (about 5 million) and a relatively small and homogenous policy community. The development of the qualifications framework was strongly driven by educational institutions. Level descriptors developed by the people who might actually use them are more likely to be trusted, and are likely to mean something to the users, not because of how well they are articulated on paper, but because of the shared process engaged in arriving at them. Taking official documents on their own is unlikely to replicate the Scottish successes. In countries with larger populations and greater diversity and contestation among stakeholders and policy makers, the consensus which was the basis on which agreement on the framework was achieved in Scotland may be very hard to replicate. The problem is that statements such as level descriptors are so open to interpretation that they can become meaningless. Their impact therefore depends on the context in which they are generated and in which they are interpreted and used.

In addition, countries which 'borrow' or adapt the Scottish level descriptors, without directing energy and resources at improving the quality of their institutions, or without providing financial support for students to access education, may find that they do not play

the role in improving educational standards or levels of qualifying learners that they had hoped.

It is understandable that official documents do not capture for the outside world the debates, conflicts, and problems experienced in their country. But, from the point of view of policy borrowing, the consequence is that the policy borrower often does not see the problems. An important lesson from this research is that things are 'never as they seem'. Often what is borrowed is a snapshot of a moving target. NQFs are complex, dynamic, and evolving policy instruments. All of the older NQFs have been subject to debate and criticism—even the relatively successful Scottish framework has been criticized for slow implementation and a lack of 'teeth'. Criticisms have led to successive policy reviews and evaluations which relate to the qualifications frameworks in various ways. All the older NQFs have seen changes and developments and in some cases very substantial changes. This is important because often what is 'borrowed' or 'learnt from' another country is the model as it is described on paper at a particular time and the desirable goals associated with it, and not the model as it was implemented in practice with all the problems, experiences, and changes made to the model along the way. Official documents and accounts often do not reflect that there have been real changes in the model since it was first launched. This is understandable—such documents are aimed at practitioners and users within a country, and need to provide up-to-date information about how the qualifications framework is supposed to work. But they may inadvertently create misleading impressions for those borrowing from the policies, particularly as the language used (such terms as learning outcomes) may remain similar through substantial shifts, as can be seen in New Zealand and South Africa.

Policy borrowing can be dangerous, especially without the full picture in the country that is being borrowed from, and careful consideration of differences in contexts. While official policy documents from all countries use the language of learning outcomes, they do not all mean the same thing and they do not reflect the different views held about outcomes within the country. These differences are then not understood by those looking to borrow or learn from the official documents and put them into practice. This is compounded by the fact that qualifications frameworks clearly touch on important power relations in each country, whereas official reports tend to be political documents, designed to present a consensus.

The current study includes countries described as rich, 'developed', having many strong education and training institutions, and having robust economies with relatively low unemployment, as well as countries which are described as poor, 'underdeveloped', having weak or uneven education and training provision, and high unemployment. Yet, all these countries have developed or are trying to develop NQFs, and, as described in Chapter 5, have similar goals for these frameworks. In the light of these differences, the trend of policy borrowing observed in this study is somewhat concerning. Equally concerning is technical assistance which appears to provide answers without careful consideration of specific problems. For example, writing down 'standards' in the context of strong professional communities, who have shared understandings of what the required 'standard' is, may be very different to writing down 'standards' in the absence of strong professional bodies, strong education and training institutions, and strong social networks. Decentralizing educational provision where education and training institutions are strong and the regulatory capacity of the state is strong may have a very different effect to a similar policy mechanism in a state with weak regulatory capacity and weak or uneven educational provision. Decentralization and accreditation-based systems may be particularly seductive to poorer states, as they *seem* to reduce strain on the national fiscus. However, governments and policy makers firstly need to consider what the loss may be in terms of quality and quantity of educational provision, and secondly, the additional costs which may accompany the need for increased regulatory capacity.

Chakroun (2010) contrasts policy borrowing with policy *learning*. The latter, he suggests, encourages problem solving and reflection, facilitates the involvement of

stakeholders, and retains an emphasis on the national context. Raffe and Spours (2007) focus on policy learning as a process of *learning* lessons about policy. It is hoped that this research will contribute to policy makers being able to *learn* from policy in other countries, and not just borrow from them.

9.2 Different ways of seeing an NQF

This study aimed to investigate the impact and implementation of NQFs, and yet, as is very clear from the short descriptions of different countries' ventures into the world of qualifications frameworks, there is no single 'thing' that is represented by the term 'national qualifications framework'. This creates difficulties in terms of linking the claims made about qualifications frameworks with evidence of success. Where there are successes (or problems), they cannot be linked simply to 'a national qualifications framework', but need to be linked to specific types of NQFs and approaches to implementation, as well as to concurrent policy initiatives and institutions.

Part of the challenge of the present study was to investigate the various types of policy reform that go by the name of qualifications framework, to understand what is meant by this term, and how the different frameworks work, or how they are intended to work. Researchers have developed typologies of frameworks, based on what each sees as key differences, drawing mainly on the early NQFs as exemplars. Differences emphasized by various researchers include how prescriptive the framework is, what its aims are (as well as how ambitious it is), how comprehensive it is in its application, what its epistemological stance is, and what the process of implementing it has involved (Raffe, 2003, 2009a; Tuck, Hart, and Keevy, 2004; Young, 2005; Allais, 2007c). One of the ILO Working Papers published as an interim product of this research (Allais, Raffe, and Young, 2009) specifically explores typologies of NQFs, and one of the products of this research may be a further elaboration of these typologies.

For the purpose of this discussion, three key objectives of qualifications frameworks are differentiated, leading to a suggested three *types* of frameworks. *Types* here is used for analytic purposes, focusing on the key intended nature of changes involved in the implementation of the qualifications framework; these are not definitive descriptive or prescriptive categories, and may well need considerable revision based on further study. The three types of frameworks are offered as a way of trying to analyze what is the essence of the role that NQFs are envisaged to play. In all three cases, the notion of learning outcomes is used, although in specific cases this may involve terms like competencies, units, or modules. In all three, level descriptors may be seen as a mechanism which can improve the transparency of qualifications for employers, educational institutions, and the general public. But there are substantial differences in terms of expectations of the nature and degree of change that it is hoped will be introduced by these different types of frameworks. The actual frameworks in the study may not all fit neatly into these types, and some of them straddle the types—for example, where vocational sub-frameworks seem to be similar to one type, and the overarching comprehensive framework to another. Nonetheless, it is hoped that the categories contribute to sharpening analysis of qualifications frameworks.

The first way of understanding NQFs is as an attempt to make the relationships between existing qualifications more explicit. The focus here is on qualifications systems rather than individual qualifications. An example may be, clarifying which types of college-based qualifications can lead to which types of higher education institutions, and in which circumstances. This type of NQF may be introduced to attempt to create changes such as improved credit transfer between educational institutions or even between educational institutions in a particular sector of the education and training system. Or, the intention may be to make the qualifications system as a whole easier for students, teachers, and employers to understand. This could involve getting the institutions involved in developing, providing,

and/or certifying qualifications to agree amongst themselves on how their respective qualifications relate to each other. Here, the most likely main actors are educational institutions such as universities and colleges; awarding or examination bodies for qualifications in secondary, vocational, or further education; and government organizations.

A focus on qualifications based in educational institutions may be likely in countries where, with the exception of the professions, there are few specific qualifications which fit with specific occupations or levels within occupations. The introduction of an NQF may involve introducing a set of level descriptors as an attempt to make explicit and clarify these relationships, as well as to provide a basis for discussion and debate amongst stakeholders about the level at which particular qualifications should be placed.

It is suggested that the Scottish Credit and Qualifications Framework (SCQF) can be understood as exemplifying this approach. The SCQF was developed by universities, university quality assurance bodies, and the body involved in awarding pre-university qualifications. The Scottish framework is the result of a long series of educational reforms which built sub-frameworks in different sectors, as well as building relationships between key role players. The Malaysian NQF as a whole could also be seen as focused on broadly improving relationships between educational qualifications (but excluding the framework of skills qualifications, which exemplify a very different approach, as discussed below). The Mauritian and Australian NQFs, in so far as they are comprehensive frameworks, can also be seen as this type of framework. In both countries, however, the technical vocational education and training sub-frameworks adopt a very different approach, as discussed further below.

NQFs with this objective are likely to be based on incremental reform, as the inherent rationale means starting from existing qualifications and institutions. For example, although a new organization, the Malaysian Qualifications Authority, was created in Malaysia, the organization itself was built on existing institutions and processes, and was not completely new. The NQF in Malaysia can be considered as a limited innovation, given that it is comprised of two qualification and accreditation systems that already existed.

It is with regard to this objective of NQFs that there is the most evidence of success recorded in the current study.

A second way of understanding the introduction of an NQF is as an attempt to make the relationships between occupational entry regulations (such as those of the state or professional bodies, which define who can and cannot enter specific occupations and professions) ***and qualifications more explicit***. Existing occupational-based and professional frameworks, which regulate, for example, the requirements for recognized nurses or electricians in the workplace, tend to be complex. In many countries, professions have been more directly linked to education and training systems than other occupations. The idea in introducing an NQF can be seen as an attempt to develop one uniform set of levels which bring together the regulation of occupations and professions on the one hand, and educational qualifications on the other, in order to improve how these qualifications are understood and used.

This approach to the function of a qualifications framework implies more changes and more role players than the previous one, as attempts are made to bring together systems which may be complex in their own right, and which were originally designed for different purposes. The reform may be government-driven, or driven by national employer organizations or quasi-government organizations with employer involvement. It is more likely to be developed in countries which have occupational classifications which govern entrance to occupations and may have linkages to salary systems. (Most countries or regions have some kind of occupational classification and entry into at least some occupations is regulated in most). In countries which historically have extensive use of occupational standards, in many instances there have not been direct relationships with the

development of curricula. It may be the case that countries with such a tradition are attracted to the idea of NQFs precisely because the model (as it has been developed, primarily in the Anglophone world) claims to achieve very precise relationships between occupational standards and education and training.

Developing such a framework is likely to involve negotiations with trade unions and professional bodies, as well as with educational institutions. The relative strengths and weaknesses of trade unions, professional bodies, and employer associations, as well as educational institutions, could affect decisions about where qualifications are placed, as this may have salary implications for employees.

In the current study, the NQFs in Lithuania, Russia, and Tunisia can be seen as focused largely on bringing educational qualifications and occupational regulations together. Tunisia can be seen within this category, and it may be significant here that the NQF is in fact called a National Classification of Qualifications, instead of a National Qualifications Framework. In all three countries, there are high hopes for the role of level descriptors and learning outcomes in bringing education and training and occupational classifications together. The idea seems to be to move toward describing both in terms of competence.

These countries have all started developing frameworks rather recently, and it is too early to assess their success. However, the problems experienced by other countries with regard to the development and use of learning outcomes, and the lack of evidence of the use of level descriptors, indicate potential problems. The study of Russia also reveals other potential difficulties of this type of approach: the various systems which are being brought together are all very complex in their own right, are currently in use, and have legal and other implications.

A third way of understanding the introduction of NQFs is as an attempt to use independently specified outcomes or competency statements to drive a range of different educational reforms. Although all NQFs use the terms like 'learning outcomes' or 'competencies', here the development of learning outcomes is seen as the focus, and the mechanism through which all the goals of NQFs will be achieved. The specified outcomes are seen as the key driving mechanism: it is assumed that they can be the basis for curricula to be developed, assessment and quality assurance to be conducted, certificates awarded. Learning outcomes are seen as a mechanism to achieve the alignment of qualifications (as for the first NQF focus), but here the emphasis is not so much on the processes and institutions as in the actual specified outcomes, which are believed to create transparency. Similarly, it is believed or hoped that the specification of outcomes or competencies will enable a simple and transparent relationship between occupations and educational qualifications. It is further hoped that all of this will lead to more and better training.

The process of developing these qualifications is seen as stakeholder-driven, in many instances but not necessarily, with a focus on industry. Qualifications are composed of these learning outcomes, and are thus not linked to specific educational institutions. Competency-based training models are conceptually the same as this notion of an NQF. In many instances introducing an outcomes-based framework is part of introducing or reintroducing a competency-based training approach.

This emphasis on qualifications based on learning outcomes or competencies is where NQFs can be seen as attempting to make the biggest and most fundamental changes to education and training systems. Outcomes-based qualifications are seen as a way of driving curriculum reform, changing the management and delivery of education and training systems, and changing the processes and bases for awarding qualifications, thereby improving relationships between education and the labour market, as well as achieving broader socio-economic goals. In theory, decisions about which level to place a qualification at are based entirely on an analysis of the competencies or learning outcomes

comprising a particular qualification, particularly as these are in fact supposed to be designed based on the level descriptors.

The NVQs in England were the first clear example of an attempt to use an NQF in this manner. Many countries have subsequently attempted to use qualifications frameworks in this way in technical vocational education and training. In the current study, the frameworks in Bangladesh, Botswana, and Sri Lanka could be seen as largely fitting within this approach in terms of how they have been designed, as can the vocational sub-framework in Australia, the skills sub-framework in Malaysia, and the vocational sub-framework in Mauritius. The New Zealand and South African NQFs initially attempted to use this type of approach for all qualifications at all levels. The Chilean, Mexican and Turkish frameworks also fit within this type, although initially focused on assessment of workplace learning (and training in Turkey), with only indirect attempts to change the education and training systems. What these countries have in common is an attempt to use outcomes-based qualifications to drive reform. For example, in Bangladesh, the Technical and Vocational National Qualifications Framework includes a specification of pre-vocational qualifications. The hope is that once qualifications have been specified, provision be developed against them, as institutions take them up and start offering them, thereby increasing access to education and training.

There may be considerable variation between frameworks that have this objective, depending on the transformational ambition of the framework. This type of qualifications frameworks seems to have encountered difficulties in many countries.

9.3 Positive possibilities

As discussed above, the research found little evidence that NQFs have substantially improved relationships between education and training systems and labour markets. The scope of this research did not include exploring alternatives to NQFs—there are clearly many policy alternatives that are used and have been used in many countries to attempt to achieve some or all of the goals that NQFs are intended to address (although NQFs probably claim to solve more problems than most policies do). What the study does suggest, though, is that there may be an unhealthy dichotomy created between the role of industry versus role of educational institutions. There seems to be a general idea in many of the countries that educators are not in a position to develop curricula, as they do not understand what workplaces require. This leads to the idea that industry must provide the specifications for the 'product' that educational institutions should produce.

But all the case studies show that involvement of industry has been problematic. An interviewee from one of the qualifications authorities commented that "*the process means that industry has developed the qualification. If the training provider offers it, they know that these people will get a job because it was done by industry people*". Practices, though, seem to be different. Students, parents, employers, and governments value university qualifications, and therefore by extension qualifications which can potentially lead to university, and employers do not always seem to value the qualifications which emanate from industry-led qualifications processes. NQFs in many cases (particularly where there is a strong outcomes or competency-based focus) are claimed to be *industry-led* policies. This may be a problematic expectation, as industry appears reluctant to lead. Where industry does participate, it is often not at the desired level (e.g. human resource personnel instead of technical experts), and in many instances, the process of developing the standards is subcontracted out to consultants. For example, in Lithuania, where workplace-based assessment is officially conducted by the Chamber of Industry, the technical vocational education and training schools argue that in fact much of the work is delegated to them anyway. The Chamber mainly plays a role in organizing and coordinating. The technical vocational education and training schools argued that the Chamber does not have the

expertise to design the actual assessments, because of lack of expertise and knowledge in the specific fields.

Besides the practical problem of getting employers to be involved, researchers have also suggested that employers may not always be able to articulate what it is that they require, and certainly are in most instances not able to predict what skills and knowledge will be required in the future.[18] Representatives of educational institutions interviewed in Lithuania argued that the problem is not so much lack of input from employers as lack of research into present and future skills needs. In addition, educational research suggests that education and training are much more complicated than producing 'products' to specification. What all this suggests is that a simple, one-size-fits-all approach to education/labour market relations may be permanently elusive. Instead, more success may be achieved through more flexibility.

Buchanan, Yu, et al (2009) use the notion of 'skills eco-systems' as a way of exploring both the problems and possibilities for improving education and workplace interaction. This fits well within the idea of a sectoral approach, where the focus is on not just developing qualifications, but ensuring coordinated skills, labour market and socioeconomic policies in particular sectors. Working with the needs and possibilities, as well as institutional strengths in particular sectors, probably has the best chance of success. Buchanan, Yu, et al, emphasize that trying to address training issues without addressing the nature of education and labour market structures is unlikely to be successful. This fits well within the ILO's belief in the need for coordinated policies, and the ETF's emphasis on policy learning. It arguably opens a lot of productive possibilities for further research and policy development.

In some instances, the specification of occupational standards may help qualifications to fit better with labour market requirements. In other instances, research-based curricula may be more successful, as industry itself may not know what it will require in years to come. In other instances, professional bodies may play crucial roles. Seeing such processes as ongoing and developmental, rather than fixed quickly through standards specification, may yield better results. The case studies show that NQFs have had some success in specific sectors. The English NVQ model is described as having had some successes in some 'niche' areas and a similar situation can be seen in Mexico. In both cases, specific human resource development policies and practices in the relevant industries seem to have made a big difference in achieving success. This seems encouraging for those countries that are implementing NQFs starting with specific sectors.

However, it does not address the concern that governments have about investing in education and training systems which do not seem to be working, and it is this broader concern that makes policies like qualifications frameworks appealing, as they appear to provide more systemic solutions. This research, though, suggests that as desirable as this may be, it is questionable whether NQFs can actually play the roles claimed for them. Whether or not there are other 'systemic' policies which can achieve these roles is a subject for other research. For now, it is merely pointed out that qualifications will be more likely to be of appropriate quality if the needs and conditions of specific sectors and industries are considered, if funding for education and training is ensured, if education and training institutions are built and sustained over time and not only forced into short-term responsiveness, and if broader conditions in labour markets are addressed. They are also more likely to succeed in the presence of strong professional bodies, strong labour market research, and strong trade unions, and countries could consider policies to support all of

[18] See Wolf (2002) for a useful elaboration of this problem.

these. An issue for future research is the role of awarding or certification bodies, which the current case studies were not able to find much information on.

Financing is a key issue that NQFs bring to the surface in most of the countries. Except for Australia, New Zealand, and the UK, the NQFs in this study have been developed with donor financing and support (this will presumably not apply to many of the European countries which are now in the process of developing NQFs). Improving technical vocational education and training in most of the countries will clearly require clear investments in institutions—not just policies which expect them to do more with less, or believe that simple competition will drive up quality. Working with institutions to strengthen them is clearly important. Ensuring that learners can afford to access education and training, not just in terms of fees, but in terms of lost income in the case of poorer people, may be something else that countries could focus more attention on. What may be a useful focus, then, for future research, is finding viable mechanisms and systems to evaluate quality of provision, ensure that access is equitable, and so on.

This report has presented some insights into what countries have experienced in their attempts to introduce qualifications frameworks. It is by no means definitive, and raises a good many more questions for further empirical research and innovative policies. Nonetheless, the information and analysis will hopefully be of use to governments, employer organizations, trade unions, and educational institutions involved in education and training reform. And other researchers may be able to pursue further some of the many questions which are raised by this research, or shed new and different light on the issues raised by it. The research suggests that what is key, in particular for developing countries, is the need for serious consideration of policy priorities as well as the sequencing of policies. Clearly, NQFs are not 'magic bullets' as instruments for reform. Countries that have been most successful in implementing them have been those which have treated the development of frameworks as complementary to improving institutional capability rather than as a substitute for it or as a way of re-shaping institutions. In other words, it seems that NQFs are more likely to be successful if training outcomes and inputs are seen as related to each other, and policy attention is focused on both.

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