

**Report No. 26**

**South Asia: Human Development Unit**

# **National Qualifications Framework Essentials**

**National Qualifications Framework and Technical Vocational Education  
and Training in Pakistan**

March 2009

**Discussion Paper Series**

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## **ACKNOWLEDGEMENTS**

This paper was prepared by Peter Khallash Bengtsen while he was seconded to the World Bank from his present position as Head of Section, Office for Lifelong Learning, Ministry of Education, Denmark. The author has been extensively involved in the establishment of the Danish National Qualifications Framework of Lifelong Learning and its integration with the European Qualifications Framework.

Valuable comments on earlier drafts that improved the paper, were received from the peer reviewer to this report: Mr. Jan Reitz Joergensen, Head Consultant, Office of Lifelong Learning, Ministry of Education, Denmark, and colleagues here in the World Bank. The team wishes to acknowledge the role of Mr. Andreas Blom, Senior Education Economist, who coordinated Mr. Bengtsen's secondment to the World Bank and assisted in the preparation of this report. Lastly, Mr. Mohammad Khalid Khan and Ms. Julie-Anne Graitge deserve praise for their timely and diligent formatting of this paper.

This paper is part of the World Bank's response to requests from Government of Pakistan to assist in providing more opportunities for skills development to its talented youth population.

## **LIST OF ACRONYMS**

|         |   |
|---------|---|
| AMU     | Adult Vocational Training   |
| EQF     | European Qualifications Framework for Lifelong Learning               |
| FETAC   | Further/Higher Education  |
| HEC     | Higher Education Commission   |
| HETAC   | Training Awarding Council,  |
| JDC     | Danish Joint Competence Description                                   |
| KVU     | Short-term Higher Education   |
| NAVTEC  | National Vocational and Technical Education Commission                |
| NQFHE   | National Qualifications Framework for Higher Education Qualifications |
| NTBoard | National Training Board   |
| NQAI    | National Qualifications Authority of Ireland                          |
| NQF     | National Qualifications Framework                                     |
| PNQA    | Pakistani National Qualifications Authority                           |
| SAQA    | South Africa Qualifications Authority                                 |
| SCQF    | Scottish Credit and Qualifications Framework                          |
| SMEs    | Small and Medium Enterprises  |
| TEVTA   | Technical Education and Vocational Training Authorities               |
| TVET    | Technical Vocational Education and Training                           |

## **ABSTRACT**

A National Qualifications Framework (NQF) has benefits, which can improve TVET in Pakistan significantly, if certain conditions are met. This paper proposes and analyzes a set of essential aspects of a NQF that could guide Pakistan as it seeks to develop a NQF. The main challenges are to develop a NQF realistic in scope, commit stakeholders and relate the NQF to other education reforms. The policy recommendations in this working paper focus on a NQF based on sector-specific qualifications frameworks, an incentivized mode of implementation and an incremental approach. It is suggested that further knowledge is needed regarding integration of NQF development with other education reforms.

## **INTRODUCTION**

1. A National Qualifications Framework (NQF) can be described as an instrument for classification of qualifications. The qualifications are incorporated on different levels in the NQF according to a set of criteria for the learning achieved.

2. Governmental bodies in Pakistan have expressed an interest in establishing a NQF. Experiences with NQF development and implementation in other countries are to be drawn upon. Development of such qualifications frameworks has from the establishment of the first framework in the vocational education sector of England in the 1980es expanded to countries around the globe, high-income as well as middle- and low-income countries. In several of these countries the NQF has been put forward as a promoter of wide reforms of the education system, because of the policy initiatives that are traditionally linked to the qualifications frameworks.

3. Development and implementation of a NQF in Pakistan poses a series of essential issues to be considered. This paper considers the following elements as ‘essentials’ for a NQF:

- (a) Objectives and benefits of the NQF (outlining the overall purpose of the NQF)
- (b) Anchoring NQF in a reform program (linking with overlapping education policy reforms)
- (c) Scope of the NQF (coverage of the NQF across the education sectors)
- (d) Mode of implementation (voluntary/incentivized/regulatory implementation)
- (e) Competence-based NQF (basing the qualifications on learning outcome)
- (f) Involvement of social partners (linkages with employers and employees)
- (g) Framework for quality assurance the NQF
- (h) Organizational structure of the NQF

4. This working paper will focus on the benefits and challenges facing the technical vocational education and training (TVET) sector of Pakistan when establishing a NQF. Lessons to be learned from Danish and other international experiences are drawn upon to assess the feasibility of developing and implementing a NQF in a Pakistani context. The relative large amount of Danish examples is due to the Danish origin of the author and the fact that Denmark right now is developing a NQF for Lifelong Learning.

5. The main messages of the working paper are:

- (a) Establishing a NQF in Pakistan has potential to promote transparency and progression and to provide a framework for more robust quality assurance mechanisms. Also, a NQF has potential to improve linkages between labor market needs of competences and provision of such competences from the education sector.
- (b) Several challenges are significant to be aware of, when setting up a NQF: Development and implementation should be acknowledged as a medium- to

long-term initiative. It takes time to develop and implement a NQF, when no previous reforms have eased the way, and when success depends upon involvement of a number of stakeholders with different interests. Committing all relevant stakeholders in principle and practice is crucial, both in the development and implementation phase. The scope of the NQF must be clarified and agreed upon by all stakeholders, which include questions like which NQF model to use and what qualifications to include.

6. The paper proposes an incremental approach to developing and implementing a NQF. The process should not be rushed. Furthermore, a NQF comprised of partial frameworks for each education sub-sector is proposed as a feasible organizational model. This will allow different paces and phases for each partial NQF. The partial frameworks could be combined by a joint translational framework to promote coherence and progression between education sectors. Finally, the development of the NQF must be done in combination with other education initiatives to be effective. Developing a NQF will not by itself achieve the benefits sought by the Pakistani Government, unless policies are developed regarding improving linkages with industry, developing skills standards, developing quality assurance mechanisms, among others.

7. The content of the paper is divided into three sections: *First section* summarizes relevant characteristics of the Pakistani TVET sector. *Section 2* discusses each of the ‘essentials’, describes trade-offs and options for Pakistan when developing a NQF. *Section 3* summarizes the policy recommendations arrived at in the previous section.

### **SUMMARY OF THE PAKISTANI TVET SECTOR<sup>1</sup>**

8. This section outlines some of the main characteristics of TVET in Pakistan to give a short view of the TVET sector. The management of the sector is divided between several federal and provincial bodies. These bodies are responsible for vocational education and training programs ranging from upper secondary to master level. Not many national skills standards exist in Pakistan, and TVET participation capacity is limited. 9% of the Pakistani workforce has received on-the-job-training, the lowest in South Asia, and training is concentrated in a few major trades. Development of a National Qualifications Framework is proposed by various governmental bodies to improve the TVET sector of Pakistan.

9. *The TVET sector is managed by a various federal and provincial agencies.*<sup>2</sup> The more prominent features are:

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<sup>1</sup> Besides the references in the Bibliography this section is also informed by observations done by the World Bank in 2008 and 2006 (Blom/Shakil-mission and Piyau/Buyong-mission) and presentations from Pakistani bodies (‘Technical Education and Vocational Training Authority’ (TEVTA Punjab, May 2008)). Due to inadequate data some of the results may be supplemented by more thorough analysis.

<sup>2</sup> Governance of the total education sector of Pakistan is divided between several ministerial platforms. The Ministry of Education is responsible for general education. Higher education is autonomously dealt with by the Higher Education Commission (HEC). Science and Technology is being dealt by the Ministry of Science and Technology, and Technical Education and Vocational training is being coordinated by NAVTEC. Ministry of Labor and Manpower is also concerned with skill training. Inclusive education (special education) is dealt with by a separate Ministry. At the provincial level, the set up varies from province to province. In Punjab, education is separate from the Department of Literacy & Non-Formal

- At federal level the National Vocational and Technical Education Commission (NAVTEC) was established in 2006 with the Prime Minister's mandate to coordinate and provide policy direction for TVET. NAVTEC resides in the Prime Minister's Secretariat. Also at the federal level the National Training Board (NTBoard) was established in 1980 and is placed under the Ministry of Labor, Manpower and Overseas Pakistanis. The NTBoard has 21 members (of which 5 represent employers and 5 represent employees) and has a coordinating role for TVET. The Ministry of Industry is concerned with TVET as well. Also the Ministry of Education put forward initiatives regarding TVET in its policy papers.
- At provincial level Technical Education and Vocational Training Authorities (TEVTA's) have been established to manage TVET in each province from 1999. Provincial Education Departments and Provincial Labor Departments administer different education and training centers and institutes. Provincial Directorate of Manpower and Training of Labor Departments administer apprenticeship training in each province.

10. *TVET education ranges from upper secondary to master level.* The technical and commercial vocational educations are found from upper secondary level (grade 11) to master level. Upon completion, the educations lead to higher secondary certificates, diplomas, bachelor degrees and master degrees. Vocational training consists of short courses which are targeting youths and adult with 6-12 years of schooling. Vocational certificates G-III, G-II, G-I and diplomas are the result of completed vocational training. As a part of the vocational training system apprenticeship training exists which upon completion results in an apprenticeship certificate. Progression in the TVET system is possible, but learning pathways from upper secondary education to TVET and from TVET to higher education seem limited. See annex 1 for an illustration of the education system in Pakistan and annex 2 for an illustration of the TVET system in Pakistan.

11. *Only few national skills standards exist.* Currently each institution issues their own certificate, which is sometimes recognized by the Province. There is no national recognition of these standards. This reduces the economic value of training, provide little transparency and confidence to employers in selecting and hiring, and give limited incentives to raise quality and output of training.

12. *TVET participation capacity is limited.* The overall capacity of the TVET system in Pakistan is around 315,000 full time students in around 1,650 institutions. TVET is taught at a number of different education institutions, including:

- Vocational training institutes
- Technical training institutes and centers
- Colleges and institutes of commerce
- Colleges of technology

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Education, the technical and vocational rests with Technical Education & Vocational Training Authority. In Balochistan, the Social Welfare Department looks after literacy and so on.

- Polytechnics

13. The public institutions are funded by a variety of line ministries, their agencies, and TEVTA at the provincial level.

14. *Few Pakistani workers receive on-the-job training.* Only 9 % of the Pakistani work force has received on-the-job training, which is the lowest in South Asia.

15. *Training is concentrated in a few major trades.* Almost 60 % of the Pakistani receiving training in 2003-2004 was trained in computers, driving, embroidery and knitting, garment making or electricity. The Labor Market Survey shows that probability of receiving training is higher for higher levels of educational background. Also the probability is higher for receiving training if one lives in Punjab.

16. *Ambitious strategy from NAVTEC outlines promising reforms.* In 2007, NAVTEC published the strategy “Skilling Pakistan: The National Skills Strategy, 2008-2012”. The strategy outlines visions, goals and objectives for improving the Pakistani TVET system by calling for actions with regard to the above mentioned challenges, among others. The strategy is supported in principle by all stakeholders, including three involved ministries.

17. *Development of a National Qualifications Framework (NQF) is proposed by various governmental bodies.* One of the main objectives in the NAVTEC strategy is assuring quality for skills development under which establishing a NQF is mentioned. The purpose of the NQF is stated to be a means to structure existing and new qualifications. This includes indication of interrelationships between qualifications and possibilities of progress between levels. The future NQF is also mentioned in the NAVTEC strategy regarding a reform of the apprenticeship system and emphasizes that apprenticeship training must be recognized in a NQF. Regarding vocational education in schools, it is stressed that school and college qualifications combining academic and vocational knowledge should be linked to an eventual NQF. This would provide pathways to progress up and across different streams of education. It is not completely clear from the strategy, however, if the NQF is supposed to be TVET-sector specific or encompassing the entire Pakistani education system. The Ministry of Education proposes the development of a NQF in the ‘National Education Policy, draft 2008’. Punjabi TEVTA is also supportive of a NQF and includes the implementation of a NQF in its Mid Term Action Plan (2009-2013) for quality improvement of Punjabi TVET.

## **A NATIONAL QUALIFICATIONS FRAMEWORK IN PAKISTAN<sup>3</sup>**

18. This section discusses each of the essential issues for a NQF. Each sub-section presents approaches, models and perspectives to learn from. Experiences are drawn from NQFs mainly in high-income countries, because experiences with NQF's in developing countries are limited and evaluations and measurements of impacts even more so. First, the potential benefits of a NQF in Pakistan are outlined in the first sub-sections of the section. Establishing a NQF in Pakistan has potential to promote transparency and progression, and also to provide a framework for more robust quality assurance mechanisms. Second, the need for anchoring a NQF as one element of a larger policy reform is discussed. Committing all relevant stakeholders in principle and practice is crucial, both in the development and implementation phase. The scope of the NQF must be clarified and agreed upon by all stakeholders, who include questions like which qualifications to include and what NQF model to use. A NQF model comprised of partial frameworks for each education sub-sector is discussed as a feasible organizational model.

### **OBJECTIVE AND BENEFITS OF A PAKISTANI NQF**

19. The focus on qualifications frameworks all over the world, both in high-, middle- and low-income countries, displays a variety of objectives, when a NQF is being developed. These aims must be regarded according to the different contexts of countries. Box 2.1 gives an example of the objectives of the Irish National Framework of Qualifications. International experience shows that aims of a NQF may include:

- Establishing national standards of qualifications
- Providing a model for transparency and comparison of qualifications
- Promoting quality of education and training provision and development
- Strengthening access to learning and progression in learning
- Supporting lifelong learning
- Improving recognition of prior learning
- Creating an instrument for change in the education system
- Expanding possibilities for international recognition of qualifications
- Increasing coherence between education output and needs of the labor market

20. The NAVTEC strategy 'Skilling Pakistan: The National Skills Strategy, 2008-2012' emphasizes the need for a NQF in terms of assuring quality for skills development. Focus is on transparency, progression and comparison of qualifications.

21. A similar focus is found in the 'National Education Policy, draft' from the Ministry of Education. For Pakistan, as well as for many other countries, the explicit focus on transparency, progression and comparison of qualifications is a much-needed initiative both for providers, employers, and students.

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<sup>3</sup> Besides the references in the Bibliography this section is also informed by experiences from developing a Danish NQF for Lifelong Learning, NQF-websites in Scotland, Ireland, South Africa and other countries and World Bank Project Information Documents including 'Afghanistan Skills Development Project' and 'India Vocational Training Improvement Project'.

22. In a Pakistani context the potential benefits of successfully establishing a NQF could also include:

- A possibility to reform and provide a new setup for more robust qualification assurance mechanisms regarding quality of learning outcome.
- A possibility for employers to relate demands in enterprises to qualifications in the education system (provided that the qualifications are described as learning outcomes). This could increase linkages between industry and the education system.
- Promotion of recognition of Pakistani qualifications in an international context. The high number of Pakistanis working in the Middle-East could benefit from such an initiative.

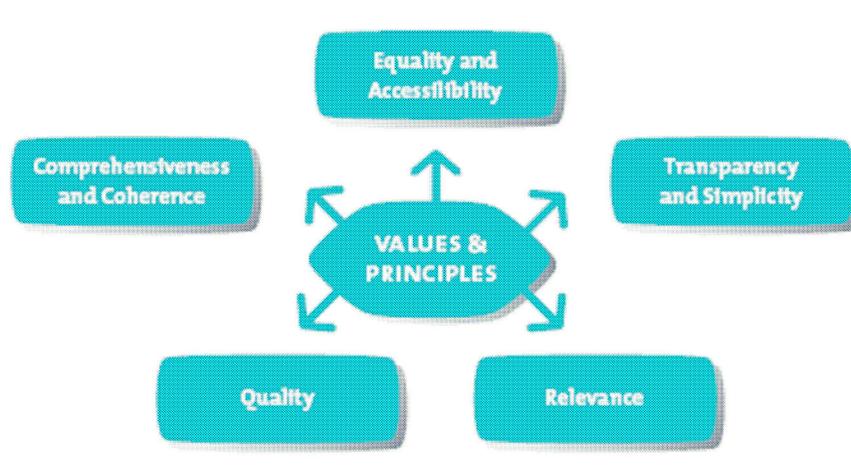
## Box 2.1. Objectives of the National Framework of Qualifications in Ireland

The Qualifications (Education and Training) Act, 1999 was enacted in July, 1999 and fully commenced in June 2001. The main objectives of the Act were to:

- Establish and develop standards of knowledge, skill or competence
- Promote the quality of further education and training and higher education and training
- Provide a system for coordinating and comparing education and training awards
- Promote and maintain procedures for access, transfer and progression

The Act provided for the setting up of the National Qualifications Authority of Ireland. As a response to the objectives of the Act, the National Framework of Qualifications (NFQ) was introduced in 2003 by the National Qualifications Authority of Ireland, as a system of ten levels, based on standards of knowledge, skill and competence and incorporating awards made for all kinds of learning, wherever it is gained. Qualifications achieved in school, further education and training, and higher education and training are all included. Annex 8 illustrates the Irish NFQ.

Values and principles of the NFQ are:



Source: *National Framework of Qualifications - a framework for the development, recognition and award of qualifications in Ireland (2003)* and website of the Irish NFQ ([www.nwf.ie](http://www.nwf.ie)).

## ANCHORING A PAKISTANI NQF IN A REFORM PROGRAM

23. *Developing a NQF will not by itself achieve the benefits sought by the Pakistani Government.* This may seem obvious, but it is worth stressing taking the high ambitions for NQFs into account. For instance, providing a model for transparency and comparison of qualifications does not result in providers, teachers and students getting a better overview without further ado. Teacher and staff training in the new concepts, adapting the model by institutions and a communication strategy are some of the necessary further initiatives to ensure the objective of transparency. Another example would be that improving progression options does not mean more Pakistanis will join training courses, if not qualifications are relevant for the labor market and the capacity of institutions are expanded.

24. *Implementing a NQF must be done in combination with other education reform initiatives to be effective.* The NQF will be nothing more than a “map” of qualifications, unless assisting policies are developed. In several countries developing a NQF is seen as a tool for wider reforms of the education system and is assisted by a number of other necessary policy initiatives.

25. *Acknowledgement of NQF development and implementation as a medium- to long-term initiative.* It takes time to develop and implement a NQF, when no previous reforms have eased the way, and when success depends upon involvement of a number of stakeholders with different interests. An incremental approach could reduce the possibility of major conflicts of interests, because time is needed to discuss, negotiate, dispel misunderstandings and reach agreements. This would increase the potential of trust between stakeholders, and also give developers, providers and teachers time to test the new concept against their experiences.

26. *Committing all relevant stakeholders in principle and practice is crucial.* Besides NAVTEC, all relevant ministries (Ministry of Education, Ministry of Industry, Ministry of Labor, Manpower and Overseas Pakistani, Ministry of Science and Technology), the Higher Education Commission (HEC), provincial bodies (such as TEVTA’s), social partners and teacher organizations should as a minimum be involved. So far a number of stakeholders have already been consulted in the development process of the NAVTEC skills strategy. This stakeholder involvement should be continued and is essential both in development and implementing phases for the NQF, when central decisions are taken and compromises made to ensure viability of the NQF. The risk of inadequately involvement of stakeholders will result in failure to create a usable framework or in restraining further education reform initiatives interlinking with the NQF. Box 2.2 describes the background for the Danish NQF for Lifelong Learning regarding stakeholders involved.

## **Box 2.2. Development of a Danish National Qualifications Framework for Lifelong Learning**

### ***Initial Steps***

The European Council decided in March 2005 to initiate a process of establishing a common European Qualifications Framework for Lifelong Learning (EQF). The objectives were to increase mobility in Europe by improving the transparency, comparability and mutual recognition of qualifications across the national borders of the Member States in the European Union (EU). The EQF was adopted as a recommendation to the EU Member States in April 2008. It is up to the EU Member States themselves to decide, if they will develop national qualifications frameworks to relate to the EQF, as a tool to improve the co-operation with each other regarding the mutual recognition of qualifications.

As part of the Bologna-process a general European Qualifications Framework for Higher Education has existed since 2005, which presupposed the development of National Qualifications Frameworks (NQF). As part of this process The Danish Government adopted a NQF for Higher Education in 2003. Experiences from the work on the NQF for Higher Education was in 2006-2007 drawn upon in the revising process of the framework, which is now implemented in legislation in Denmark. The NQF for Higher Education has four levels corresponding to the four upper levels in the EQF.

As part of the follow-up on the 'Globalization Strategy' (2006) by the Danish Government, a proposal for a qualifications framework regarding vocational education was put forward. It was recommended to coordinate this work in the vocational education sector with the establishing of a coherent Danish NQF for Lifelong Learning corresponding with the EQF.

### ***Stakeholder Involvement***

The Danish NQF for Lifelong Learning is now in the last phase of development. A working group has been formed consisting of representatives from Ministries with responsibility of education and training programs and other governmental bodies. Ministry representatives in the working group are from the Ministry of Education, Ministry of Science, Technology and Innovation, Ministry of Economic and Business Affairs and Ministry of Culture. Also participating are representatives from Cirius (an authority within the Ministry of Science, Technology and Innovation supporting internationalization of education and training in Denmark) and The Danish Evaluation Institute. The working group has in 2007-2008 developed a proposal for a Danish NQF for Lifelong Learning, including the general, vocational, higher and further education and training sectors in Denmark. The proposal was in August 2008 submitted to relevant stakeholders (social partners, provider-organizations, etc.) for comments. Afterwards the proposal will be presented to the relevant Ministers in Spring 2009 to be decided upon. It is proposed that qualifications in the NQF should be linked with the EQF in 2010.

*Source: Ministry of Education in Denmark*

27. *Scope of the NQF and mode of implementation must be clarified, This includes two key questions of:*

- The scope of the NQF, regarding the integration of education sectors and of provinces. What NQF model is the best choice to integrate education sectors and geographical provinces in the NQF to best promote the objectives of the framework?
- The mode of implementation, regarding the influence on providers. Will the NQF be regulating and harmonizing qualifications in Pakistan, or can institutions choose not to be a part of the NQF?

28. *Quality assurance of the NQF itself* is a main point for the overall confidence in the framework. It is an essential precondition for the success of the NQF that stakeholders have confidence in that the qualifications are placed at the proper levels in the framework. This confidence is only achieved if mutual trust in the quality assurance mechanisms is established.

29. *A carefully established implementation body is necessary.* Full support is needed to the body with delegated authority to implement the NQF, when the mechanisms are established for the implementation process. The body will be a new player in a field of different interests and could risk being stalled in its tasks, if the main stakeholders do not agree on the objective of the body.

30. *Developing and implementing a NQF can be a demanding task regarding the limited financial and technical resources in Pakistan, but it depends on the scope of the NQF.* The major cost will be time/salaries with regard to:

- *Development phase:* Officials, stakeholders and consultants discussing and developing the framework, participating in concept training, development of new legislation and possibly new bodies for quality assurance, accrediting, etc.
- *Implementing phase:* Officials learning to use the new concepts and framework in case work, including quality assurance, accrediting, etc. Providers getting used to the new framework with regard to new legislation, provision, etc. Teachers participating in training to learn concepts, curriculum and guides/manuals. Development of curriculum and guides/manuals to teachers. New descriptions of all educations/qualifications. Communication to providers, teachers, the public, etc.

31. The resulting costs of these undertakings can be substantial in a larger or lesser degree depending upon the scope of the NQF.

32. Because of the limited amount of evaluation of NQF implementations due to the short life of most NQF's, no definite effect measurements or cost-benefit analysis can be drawn upon to point out, which is the most efficient way to go.

### **SCOPE OF NQF**

33. When determining the scope of the NQF in Pakistan, a key question is how the educational sectors and geographical provinces can be integrated in the NQF in the best possible manner. Several questions arise: Will the NQF cover all of the education system in Pakistan in one single model? Will a number of sector- and/or province- specific qualification frameworks be a better solution? How flexible will the NQF be regarding the differences in training and quality assurance in the different provinces of Pakistan?

34. International experience shows at least three different models are used:

- *The integrated model:* This model implies that one joint qualifications framework is developed in Pakistan. A number of levels with a shared way of describing qualifications (for instance in terms of knowledge, skills and competences as in the European Qualifications Framework), quality assurance mechanisms, learning pathways, certificates, etc. are developed that encompass all education subsectors.
- *The combination model:* Partial qualifications frameworks are developed for each of the education sectors in Pakistan, each with its own levels and description of qualifications, learning paths, certificates, quality assurance, etc. The different sector frameworks are combined in a joint framework that makes translation between sector frameworks possible (i.e. common structures for transferability). In the joint framework at least a description of qualifications, learning paths and certificates/diplomas are to be found.
- *The partial model:* Partial qualifications frameworks are developed for each of the education sectors in Pakistan, each with its own levels and description of qualifications, learning paths, certificates, quality assurance, etc. No joint framework is made to translate between the sector frameworks.

An illustration of the models is given in Box 2.3.

**Box 2.3: Illustration of National Qualifications Frameworks Models**

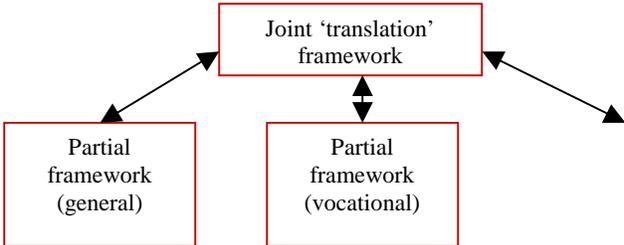
Partial  
framework  
(higher)

The illustration shows two of the described models. The third model, the partial model, is the same as the combination model, but without a joint framework to translate between the partial ones.

**The integrated model**

One joint framework covering  
all qualifications in Pakistan

**The combination model**



The Scottish Credit and Qualifications Framework (SCQF), the Irish NQF and the South African NQF can be termed integrated models. The Danish draft NQF for Lifelong Learning is a mix of the integration model and the combination model. In 2003 the Danish Government decided to establish a National Qualifications Framework for Higher Education Qualifications (NQFHE), which is now an independent framework. The draft version of the Danish NQF for Lifelong Learning also covers higher education and is compatible with the NQFHE. Partial models can be found in European countries, who have adopted the Bologna Declaration thereby agreeing on having a Framework for Higher Education Qualifications, but having no further plans on developing a NQF for all qualifications of the country.

35. Each of the three NQF models poses benefits and risks, of which the main ones are:

- *The integrated model:* The benefits of the integrated model depend to a large degree on the trust between involved stakeholders from the different education sectors. Agreement in just one forum comprising all stakeholders could result in both a robust momentum and coherence in the education sector. The NQF objectives of transparency and progression will also be realized by encompassing all qualifications in one and the same description system. According to international experience, the risks include possible conflicts and/or a slow process because of the large amount of stakeholders involved. Another risk is the definition of level descriptors: Extreme standardization of a wide variety of qualifications is a possibility in the integrated framework. The opposite result is also a possibility in making level descriptors too wide, so they practically say nothing specific because of the broad range of qualifications from different sectors to be included.
- *The combination model:* This model has the benefit of describing all qualifications in the education system too, although not in a model as coherent as the integrated model. Still transparency and progression is made possible by the joint translating framework. The combination model also takes into account the potential different paces and phases in the development and implementation process in each of the education sectors. In this way the model contains a higher degree of flexibility regarding level descriptions, quality assurance and management of each sector framework. Risks include a slow process of connecting the partial frameworks with the joint framework as well as a more complex organizational structure.
- *The partial model:* One of the main advantages of this model is the minimal need of coordination, because of the lack of a joint framework to translate between the qualifications framework in each sector. Because of the lack of links between each sector-specific framework, this model has the highest degree of flexibility regarding level descriptions, quality assurance and management of each sector framework. The lack of links between sector-specific frameworks is also one of the central disadvantages, if more links and progression between education sectors are needed.

36. The three models can also be applied to the question of integration of the different provincial education systems into a larger national framework. Should each province have its own framework combined at the national level in a joint translating framework (not unlike the EQF-NQF-relationship in Europe)? Or should there be no taking into account the provincial differences in this perspective?

37. Provincial qualifications frameworks may result in a too fragmented system. The fragmentation would be further promoted if the combination or partial model is chosen, resulting in a large number of frameworks. A national scope of the NQF model would instead contribute more to cohesion of the education system and better functioning labor market.

38. Because of the risk of interest conflicts and slow process because of the large amount of stakeholders involved, the integrated model may not be the optimal choice.

39. Since the purpose of developing a NQF in Pakistan is to improve transparency and progression, the partial model may not result in the required links between the education sectors. But the partial model may result in a faster development and implementation process.

40. Choosing the partial model *as a beginning* would be a solution to promote the need for reforms. The TVET sector and the other sectors may benefit the most from beginning with developing sector-specific qualifications frameworks. To promote cohesion in the Pakistani education system it could be a long-term goal to develop a joint framework to link the frameworks for the three main education sectors together. To avoid slowing down the process of reforming the TVET sector (and the education system as a whole) the establishing a joint framework should not be holding back the sector-specific framework development.

### MODES OF IMPLEMENTATION

41. Another key question is how to ensure the actual use of a NQF in Pakistan; hence, the influence of the NQF on providers. Will the NQF be regulating and harmonizing qualifications in Pakistan, or can institutions choose not to be a part of the NQF? Implementing NQFs vary in the degree of how voluntarily/mandatory the legislation is made on the use of the NQF by providers. In one end of the scale an *enabling NQF* puts forward no or few demands on providers, while a *regulatory NQF* does. Should the Pakistani NQF be enabling or regulatory, or should it be something in between?

- *An enabling framework* is basically a framework mostly for communication purposes and with limited prescription. This means the potential use of the framework also is limited. Its success depends entirely on voluntary use by stakeholders, i.e. no sanctions are imposed on providers who do not use the framework, or who stray from the common way of describing qualifications. This also means that providers could continue awarding unrecognized qualifications. The Irish and Scottish frameworks and Danish draft framework are all mostly enabling in nature, because of the legislation adopted in previous years requiring a less radical change of structures, when the NQF framework was implemented, than may be the case for Pakistan.
- *A regulatory framework* in the other end of the scale puts forward certain criteria, for instance by new legislation, which providers must follow, if they still want to offer the qualifications as part of their programs. A regulatory framework makes possible a wide coherence, harmonizing and transparency of an education system.

42. The balance between a high or low degree of prescription is delicate and depends on several factors. One of the main factors is the question of, what motivates providers to

change behavior and use the NQF. A regulatory framework can be seen as a radically top-down imposed structure. This presupposes more thorough support from stakeholders to be effective, especially from the providers.

43. An enabling framework on the other hand may be combined with motivational benefits for joining the framework cooperation. Such a framework may be termed an *incentivized mode of implementation of a NQF*. No sanctions are imposed on providers not using the framework, but specific incentives are given to stimulate the use of it. The incentivized framework may realize the coherence and harmonizing benefits better than an enabling framework, but without risking to be seen as too top-down imposed like a regulatory framework.

### **A COMPETENCE BASED APPROACH**

44. In a number of countries, a major change has taken place during the recent decades in the increased use of competence based approaches to education and training instead of curriculum-based. Competences relate to the learning outcome of education and training. They describe what the student is supposed to know and be able to do after finishing a learning program. Most qualifications frameworks are outcome-based. Often the use of these frameworks is simply seen as synonymous with an outcome-based approach to education and training, i.e. a competence based approach.

45. In Pakistan the existing educational system follows a curriculum-based and time-bound approach. Introducing competence based education and training in Pakistan has a number of benefits, for instance as a tool to improve dialogue with enterprises about relating need of skills in industry to competence development in the education system. But this approach also faces certain risks, which is especially relevant to keep in mind for a developing country as Pakistan. A competence based approach is based on trust. Stakeholders agree on competences to be developed in education and training, but when only outcome of education and training is described and agreed upon, it is basically the task of providers and teachers to get there. Quality assurance mechanisms and close interaction with industry are essential initiatives to combine with a competence based approach.

## Box 2.4. Competence Based Training in Denmark

In 2004 a new legislation concerning adult vocational training entered into force to increase demand-driven aspects of management of the sector. The legislation changed the conceptual framework from focusing on curriculum based training programs to focusing on learning outcome understood as *competences*. This meant a complete restructuring of the way of managing, organizing and describing training. The basic element of the new approach is *joint competence descriptions (JCD)*. Management of the Adult Vocational Training sector is based on the framework of JCDs. Also, the competence based approach provides a practical basis for employers and employees to enter a dialogue about the need for competence development. This conceptual framework also eases the dialogue between providers of vocational education and training and enterprises.

A joint competence description corresponds to one job area for low skilled and skilled workers and gives an overview of the system for users, guidance staff etc. A joint competence description consists of:

1. A description of a job area in the labor market, defined by type of products/services, type of production/work methods and type of employees
2. A description of relevant competences within the job areas
3. A list of adult vocational training programs and affiliated single subject courses from mainstream vocational education and training programs leading to those competences

The approximately 2,800 adult vocational education programs are divided out on the approximately 120 joint competence descriptions.

The system of joint competence descriptions is a very flexible framework, giving providers, teachers, enterprises and trainees the possibility of adapting to local and individual needs and demands. The primary objectives of the framework rules must be met, but the specific content of the training may vary from provider to provider and from trainee to trainee. However, although the framework is flexible, the outcome is fixed: Nationally recognized qualifications.

*Source: Danish Ministry of Education*

46. Using a competence based approach requires teacher training in understanding the new concept and new approach to teaching and learning. This can be a major cost. Finally, using competences risks an “over-description” of learning outcome. When a competence is to be explained this is often done by dividing the competence into further sub-competences, which can result in a spiral of further and further sub-categorizing of competences, i.e. challenging management and planning of education and training. Box 2.4 outlines how Denmark moved towards competence based training.

47. NAVTEC and Punjab TEVTA describe the need for a competence based approach in Pakistan education reforms. This is a sound strategy, if certain conditions are in place. The point made by NAVTEC about cooperating with TEVTA’s and Centres of Excellence to develop curriculum and training manuals is a key approach to introducing competence based training.

48. A mix of a competence based approach and use of curriculum can:

- Contribute to an incremental approach to change. Maintaining partial use of curriculum can avoid a radical shift in language used to describe education and training and thereby reduce time and cost for teacher training. An example of an outcome-based framework that incorporates input is the National (Vocational)

Certificate Framework in Scotland. Here National Certificates were also designed in the form of outcomes, but with teachers to convert outcomes into curriculum.

- Reduce the need for teacher training (so limited resources available to teacher training can be used on competence development in industrial skills asked for by the industry).
- Avoid over-description (because of the use of curriculum).
- Avoid a too narrow competence-focus in general education subjects, which contains elements of general/liberal education not possible to describe adequately in competence-terms.

49. Implementation of a more competence based approach could be composed of the following:

- *Level descriptors* of the partial qualifications frameworks and joint framework consisting of at least competences-descriptors (but could consist of knowledge, skills and competences like a broad numbers of NQF's in other countries). Box 2.5 provides a brief example of level descriptors in the case of Scotland.
- *Skills-standards* formulated using competences. The Joint Competence Descriptions (JCD) from the Danish adult vocational education reform of 2004 can provide inspiration for a model guiding developers, officials and providers through the transition process from curriculum-based to partial competence based learning in the TVET sector (Box 2.6). A model for Pakistan could for each industrial sector be:
  - Description of job types in the industrial sector (*federal level*)
  - Description of competences/skills in these sector job types (*federal level*)
  - Listing of qualifications (i.e. education and training programs) leading to the competences (*federal level*)
  - Suggestions of curriculum for each education and training program (*provincial or local level*)

## Box 2.5. Level Descriptors in the Scottish Credit and Qualifications Framework (SCQF)

The SCQF has 12 levels, reflecting the current Scottish system of education and training. Level 1 being the least demanding and level 12 the most demanding (Annex 7 illustrates the SCQF). The descriptors show how each level becomes increasingly demanding by changes to factors such as complexity and depth of knowledge, links to associated academic, vocational or professional practice, and the degree of autonomy exercised by the learner.

The descriptors 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. The descriptors can be used in a number of ways:

- To allocate levels to learning programs and qualifications
- In validation events for qualifications and programs
- As a basis for communication with learners and other users of qualifications
- As a guide for mapping progression routes within and across the education and training sectors
- By program designers when making entry requirements and recommendations for programs

Where two or more qualifications or programs of learning are placed at the same level they will be comparable in certain respects, particularly in terms of their overall level of outcome, but they will each have their own purpose, content or structure. The SCQF does not demonstrate equivalence or interchangeability of qualifications.

To make the descriptors manageable, five characteristics have been identified at each level. These are:

- Knowledge and understanding — mainly subject-based
- Practice: applied knowledge and understanding
- Generic cognitive skills, e.g. evaluation, critical analysis
- Communication, numeracy and IT skills
- Autonomy, accountability and working with others

Source: SCQF Handbook Vol. 1 ([www.scqf.org.uk](http://www.scqf.org.uk))

## Box 2.6. An Example of a Skill Standard: Danish Joint Competence Description (JDC)

This is an extract of the JDC 'Transportation of freight by road', which one of the 11 national training committees, The Education Council for Transportation, is responsible for. The JDC is one of 26 JDC's belonging to The Education Council for Transportation. The extracts are freely translated from the official Danish Joint Competence Description. The extracts are chosen to give an impression of the structure of a Joint Competence Description and are not comparable to the official comprehensive description.

### 1. Description of job area

#### 1.1 Definition of job area

Transportation of freight is carried out by trucks with a total weight of more than 3500 kg – with or without trailers – and by vans with a typical allowed total weight up to 3500 kg. The freight ranges from a few packages, temperature regulated goods to containers and tanks. This can for instance be gasses, petrol and oil- or chemical transportations. Also a comprehensive transportation of living animals takes place. The job area is characterized by a large number of very small enterprises and a few big enterprises. It is estimated that about 60,000 persons are employed within the job area.

#### 1.2 Typical workplaces within the job area

Some workplaces include, beside the driver function, also freight terminals or freight hotels, where the freight either is sorted by destinations and reloaded or stored for a period of time. The typical workplaces within the job area are drivers mainly with operational tasks, administration staff working with order receiving and planning, middle managers and independent carriers/haulage contractors.

The job areas encompasses the following industrial sectors: International transportation of freight by road, national transportation of freight by road, distribution, trucking, gas- and petrol transportation, animal transportation, postal and package transportation, .....

#### 1.3 Employees at the workplaces within the job area

Most drivers have received the competence through a combination of enterprise planning and participation in training programs. Several drivers have the adult vocational training program 'basic education for freight drivers' as educational background. About one third is skilled workers from another profession. If a freight driver changes job it is often within the job area. Some drivers are hired as middle managers. Administration staff is typical skilled workers from the commerce education area. Middle managers are often recruited among drivers who have gained theoretical competences or among administration staff. Employees within the job area have certain general and personal competences: ...

#### 1.4 Organization of work on workplaces within the job area

Freight drivers typically work alone, but with a large amount of contact to customers.

### 2. Description of related competences relevant for labour market

#### 2.1 Competence: Inspection and maintenance of transport materiel

2.1.1 Short description of the competence and the use of it in the job area: The employee can maintain and inspect his/her transport materiel. A basic reading competence is needed. In some cases it is assumed that the driver understands and knows how to use manuals in German or English.

2.1.2 Technology and organization of work: ...

2.1.3 Special requirements of competences as a condition for being able to carry out the job: ...

2.1.4 Distribution of the competence in workplaces within the job area: .....

#### 2.2 Competence: Handling of freight

#### 2.3 Competence: Competition, organization and economy within the area of transportation of freight

#### 2.4 Competence: Knowledge of the regulations of transportation of freight

#### 2.5 Competence: Delivery of quality and service within the transportation of freight job area

#### 2.6 Competence: Planning of transportation

#### 2.7 Competence: Health, safety, working environment and behaviour in emergency situations within the transportation of freight job area

#### 2.8 Competence: Rational, considerate, safe and economical transportation

#### 2.9 Competence: Transportation of freight

### 3.0 Current related vocational training programs

A list of the about 70 vocational training programs related to this Joint Competence Description are found here. Programs spans from 1 to 40 days (about 150-200 programs relate to the 26 JDC's belonging to the Educational Council of Transportation). Each training program has its own description of competence goals to be achieved, not of curriculum. Examples of training programs are: 'Transportation with semitrailer' (5 days), 'International transportation of freight' (5 days), 'Driving technique' (2 days), 'Regulations of driving and resting time' (1 day).

Source: Danish Ministry of Education

## Box 2.7. Models of Development of Skills Standards

1. An *Industrial Advisory Board* is responsible for descriptions of job types, the competences needed and training programs (qualifications). The Board undertakes skills surveys and consults relevant stakeholders in the process. Qualifications are approved by the NQF Subcommittee for the TVET sector (see box 2.14 in sub-section 2h on organizational structure of the NQF development).

2. A *NQF Subcommittee* for the TVET sector is responsible for descriptions of job types, the competences needed and training programs (qualifications). The organization of the Subcommittee is described in box 2.14 in sub-section 2h on organizational structure of the NQF development. The Subcommittee consults the Industrial Advisory Boards in the process. No other approval/accrediting mechanism.

3. *Awarding bodies* establish criteria for accreditation of qualifications, which all providers can apply for when developing qualifications. No central descriptions of job types, competences needed or training programs (qualifications).

- *Training in the new concepts* for officials should be provided. Teacher training in a competence based approach will be a costly initiative in Pakistan in the short and medium term. It is suggested that teacher training focus on training in new relevant industrial skills in the short term

### INVOLVEMENT OF SOCIAL PARTNERS

50. Support of the framework by the social partners, i.e. both employer and employee organizations – will benefit the implementation of a NQF in Pakistan. Industrial partners should be consulted in the central development stages of the NQF. But involving the industry in developing the NQF will have limited effect without policy development in overlapping reforms. The importance of involving the social partners in the following areas cannot be overstated:

- In advisory and management forums of the Vocational Education and Training (VET) sector
- In developing relevant skills standards
- In the transformation of education and training to having a competence based approach

51. Several social partners seem interested in closer cooperation. This presupposes an organizational structure in social partner organizations/trade unions of the main industrial sectors of Pakistan. If the organization of enterprises/employees in unions is limited or not interested in training, the effect of involving social partners will be reduced. As a consequence, models for involving relevant representatives from the main industrial sectors (both from large and SMEs) must be developed at federal, provincial and local levels. Representatives/experts from the main sectors of informal sector (rural sectors) should be taken into account in these models.

52. Studies on linkages with industry conclude that it is of little use inviting representatives from enterprises into school boards/commissions if they get no decision powers. This highlights the importance of combining linkages-with-industry-policies with institutional reforms. Because of the limited resources in the Pakistani VET sector, it could be an option offering social partners decision power, if the social partners finance their costs. Decision power could for instance consist of responsibility of making analysis of competence demands on labour market, responsibility developing competence standards, participation in school boards. Box 2.8 describes the role of social partners in Danish Vocational Education and Training.

53. Linkages with industry could also consist of initiatives at the local level. This could take form of providers reaching out to local enterprises to offer training programs, to gain knowledge of local competence needs and to promote teacher training. One such initiative of local linkages between providers and enterprises is described in box 2.9.

54. It is of importance to be aware of a typical disposition by enterprises and social partners regarding their wish to maximize benefits from dialogue with the education system. Social partners and enterprises may have strong arguments for training in specific areas of importance for the enterprises, but policies on institutional reforms and competence development should make clear, that qualifications are to be national in scope, i.e. should be able to be used in other enterprises than one or two.

## Box 2.8. Role of Social Partners in Danish Vocation Education and Training

In this box the term VET refers to vocational education and training in the youth education system, targeting mainly youths age 16 and up. Adult vocational training is referred to by the abbreviation AMU (*Arbejdsmarkedsuddannelser* in Danish).

One of the main characteristics of the VET and AMU sectors is the active participation of the social partners at all levels of the system (political and administrative, national and local). This guarantees that education and training programs meet labor market demands. The relatively extensive involvement of the social partners is one of the reasons for the consensual approach to vocational education and training in Denmark.

In both sectors an *advisory council* exists at the national political level comprised of an equal amount of representatives from employer and employee social partners, as well as other stakeholders from the sectors. The aim of the councils is to advise the Ministry of Education on a broad range of matters concerning the respective sectors, including management of the sectors, development and revising education and training, quality assurance, etc.

At the national administration level *national training committees* provide advice on specific educations and training programs relevant to their industrial or commercial sector. This includes content, structure, duration and evaluation of programs and courses, among others. Representatives from the employer and employee social partners are equally represented in the training committees. In 2008, approximately 120 training committees are found in the VET sector and 11 in the AMU sector. Staff and other costs of the training committees are funded by the social partners themselves.

At the *local* level the social partners are members of *governing boards* of the vocational colleges and institutions. The social partners also comprise *local training committees* that assist the vocational colleges and institutions in the local planning of programs. They provide advice on matters concerning vocational education and training and are responsible for strengthening the contact between colleges and the local labor market.

The social partners of both VET and AMU sectors are consulted in NQF development in Denmark, because of their role as stakeholders in the sector.

See annexes 3-6 for more information of the Danish education system in general, and of VET and AMU sectors in particular.

55. Involving social partners and local enterprises in various models and levels should be considered as mentioned below:<sup>4</sup>

- *Federal level:*
  - Participation in NQF development of the largest social partners or by an umbrella organization of social partners. Objective: To consult and commit social partners regarding the new framework.
  - Establishment of an Advisory Board for the relevant Ministries with VET responsibility, if such does not already exist, consisting of representatives from largest social partners or by an umbrella organization of social partners. Objective: To promote cooperation with social partners at the highest political level regarding policy development of the VET sector.
  - Establishment of training committees for each major industrial sector consisting of a board of representatives from the sector-specific social partners and a secretariat. Objective: Making skills demand analysis,

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<sup>4</sup> Depending on the resources available and the actual institutionalized involvement of social partners and enterprises in the VET sector.

developing skills standards, to be consulted when evaluation and development in the relevant industrial sector takes place, cooperating with relevant Ministries and TEVTA's, etc.

- *Provincial level:* Establishing an Advisory Board for each provincial TEVTA consisting of representatives from social partners or representatives from the dominant industries in the province, from Small and Medium Enterprises (SME) as well as large enterprises. Objective: To promote cooperation with social partners regarding management of provision
- *Local level:* Participation of representatives from industry in school boards. Objective: To promote a demand-driven system and to promote cooperation between schools and enterprises regarding apprenticeships

56. The costs of establishing political advisory boards are limited. The only relatively major costs in the models above are the establishment of training committees at federal level. Offering social partners decision power in return of financing the costs of establishing these committees could be considered.

57. Regarding the limited resources in a Pakistani TVET context, the NAVTEC suggestion of establishing close dialogue with a few industrial sectors at a starting point seems a reasonable way to go.

58. A communications strategy will be necessary if new skills standards are developed, and if social partners are willing to set up training committees and are invited to join national, provincial and local advisory boards. These new initiatives may not reach the ears of all enterprises. To promote actual use of the reformed VET system enterprises must know about the changes taken place, i.e. the demand-orientation, the new education and training programs, etc.

## Box 2.9. Competence Centres in Learning Regions in Denmark

This large-scale development project in Denmark aimed at bringing about systemic innovation in outreach mechanisms, methods, and modes of organization to address skilling needs in SMEs, in particular regarding the group of low-skilled. The development project was carried out in 2006-2007 by the Ministry of Education, supported by the European Social Fund. An English summary of the complete evaluation can be found at the website <http://www.kompetencecentre.dk>

15 Regional Competence Centres were set up. Their objectives were to demonstrate how outreach mechanisms and training measures could be adapted to contribute to workforce development and lifelong learning as an enterprise strategy aimed particularly at semi-skilled and skilled employees. Furthermore, the program design aimed at testing whether a collaborative model could lead to a more transparent and easily accessible entryway for the Danish enterprise base, which is comprised of a large number of SMEs. The particular goals were to:

- Collaborate with enterprises on systematic competence development and education planning
- Analyze the needs for competence development and establish networks with relevant actors
- Try out new methods for counselling and assessment and recognition of prior learning
- Develop and implement new practice-oriented methods for training and competence development relevant to the priority target groups
- Strengthen the competence base and collaboration within the Competence Centre model through internal organizational training and capacity building

Some of the main results regarding meeting labor market demands were:

*Conceptual basis:* The evaluation results demonstrate that the competence centre model has strengthened and ensured a more demand-oriented and efficient collaboration with enterprises, in particular SMEs. The collaborative approach has led to stronger outreach and service to the regions' small vocational branches that are often constituted by micro-enterprises.

*From supply- to demand-led:* As a result of the project, the competence centre institutions have become more customer-oriented and demand-driven. Previously, provision was in most instances characterised by institutions that drew up catalogues with prearranged courses of instruction, class sizes, and dates, all without involving enterprises. The project has promoted a demand-oriented approach characterised by a greater degree of outreach contact activities with enterprises. Visits to enterprises are no longer merely for the purpose of mediating information on course provision, but are also an occasion for consultations to learn about the enterprises' current issues and problems, and how the competence centre institutions can provide overall solutions which can improve the enterprises' overall competitive base. The competence centre institutions have developed thorough methods to identify, assess and recognize prior learning at the enterprise level and at the employee level.

*Flexibility and responsiveness to demand - key to success, but also a challenge:* The evaluation data show that the majority (82%) of the enterprises have been satisfied with their initial return on competence centre activities, on the grounds that there has been a greater degree of tailoring to enterprises' needs, including flexibility in the planning and preparation of training activities, and greater opportunities for integrating training and competence development into the enterprises' daily operations. Although the competence centres have succeeded in satisfying the enterprises with more flexible and demand-driven provision, the competence centres have had difficulties in defining new economically sustainable business models.

*Outreach mechanisms:* It is an ongoing challenge to get small- and medium-sized enterprises to find the time to collaborate with education and training institutions on workforce development matters in a long-term and strategic perspective. Establishing a flexible and individualized training offer has as described above been a widespread and effective strategy for getting enterprises to participate.

*Practice-oriented competence development:* The competence centres have throughout the project developed enterprise-tailored measures which take their point of departure in the occupational practice of employees and which are developed in close cooperation with enterprises.

*Source:* 'Competence Centres in Learning Regions in Denmark' (Danish Ministry of Education 2008)

## QUALITY ASSURANCE

59. Quality assurance is a central issue to focus on to ensure confidence in the NQF. Confidence is only achieved if mutual trust in the quality assurance mechanisms is established. There is a specific risk of lowering the level of outright corruption when awarding degrees. Therefore, adequate and credible quality assurance mechanisms must be established.

60. Two types of quality assurance relate to the NQF:

- Quality assurance of placing qualifications in the NQF: It is necessary to quality assure the placing of qualifications at the proper levels in the framework.
- Quality assurance of learning outcome from education and training: The NQF can be used as a tool to transform the existing quality assurance mechanisms for education in Pakistan to improve the quality of teaching, examination and learning outcomes.

61. The first bullet is basically the quality assurance of the NQF itself. It is necessary to develop procedures for placing existing and new qualifications in the framework and to designate this task to an existing or new body, which all stakeholders have confidence in. This could for instance be a body comprised of representatives from the different stakeholders or a body regulated by a board of stakeholders. Lack of confidence in relating qualifications to the NQF can result in lack of acknowledgement of the framework, i.e. lack of effect.

62. If the second bullet, improving existing quality assurance of education and training, is put forward as an objective of the NQF, establishing the NQF will have to be supplemented by policies for quality assurance reforms. Essential questions to be answered regarding this are: (i) Is learning outcome of existing educations/qualifications described adequately? (ii) Do adequate quality assurance mechanisms exist that controls the factual learning outcome of existing educations/qualifications corresponds to the learning outcome descriptions? If not, new mechanisms and possibly new quality assurance bodies must be established. Box 2.10 describes quality assurance mechanisms in Ireland.

## Box 2.10. Quality Assurance of Qualifications in the Irish Qualifications Framework (NFQ)

The qualifications/awards included in the Irish NFQ, the awarding bodies making these awards, and the providers that provide programs leading to NFQ qualifications are all subject to quality assurance arrangements. The principal legislation underpinning quality assurance in education and training in Ireland is the Qualifications (Education and Training) Act 1999 and the Universities Act 1997.

Awarding bodies making awards included in the NFQ:

- Regarding qualifications achieved in school (including vocational programs at upper secondary level): State Examinations Commission (SEC)
- Regarding qualifications achieved from higher education and training:
  - Higher Education and Training Awards Council (HETAC)
  - Dublin Institute of Technology (DIT)
  - Universities
- Regarding qualifications achieved from further education and training: Further Education and Training Awards Council (FETAC)

According to the Qualifications Act FETAC and HETAC are responsible for agreeing quality assurance procedures with providers delivering programs that lead to their awards. They are also responsible for reviewing the effectiveness of provider quality assurance procedures and the implementation of the findings which have arisen through the application of these procedures. The Qualifications Act also sets out the general quality assurance arrangements for the DIT.

The Universities Act sets out the requirement for each university to establish quality assurance procedures, to carry out evaluations, to review the effectiveness of its quality assurance procedures and the implementation of the findings which have arisen through the application of these procedures. The Irish Universities Quality Board has been delegated authority by the universities to organize periodic reviews of the effectiveness of the quality assurance procedures in place in the universities.

The Qualifications Act also sets out the responsibilities of the National Qualifications Authority of Ireland itself in terms of quality assurance, that is, the review of the performance of further and higher education (FETAC) and Higher Education HETAC and the review of the effectiveness of the quality assurance procedures of the DIT.

*Source: Website of the Irish NFQ ([www.nwf.ie](http://www.nwf.ie)).*

63. A model for development of a quality assurance mechanism could consist of:
- a. Description of learning outcome of qualifications: When the NQF level descriptions are developed using a learning outcome-/competence based approach, it is necessary to describe education and training programs by learning outcome as well. This is a precondition to make it possible to compare the learning outcome of qualifications with the framework description of learning outcome, thereby making the placement of qualifications in the framework possible. Description of learning outcome of qualifications could be a task for the skills standards development bodies (mentioned in section 2e, box 2.7) because of their purpose to develop/revise standards/qualifications.
  - b. Quality assurance of development of new qualifications: When the skills standards development bodies produce new standards/qualifications, these are to be accredited/approved by a body with such authority to ensure the quality. This body could for instance be a Pakistani National Qualifications Authority, PNQA, (mentioned in section 2h, box 2.12 and 2.13).

- c. Quality assurance of factual learning outcome: The providers are to be evaluated, for instance by the relevant Ministries or by the PNQA. The quality assurance should focus on the standards of teaching, student skills, facilities, materials at hand, and other basic features contributing to indicate factual learning outcome.
- d. Quality assurance of the NQF itself (i.e. accrediting the placing of qualifications on proper NQF levels): The bodies responsible for developing new skills standards/qualifications also have responsibility for suggesting the proper level to place the new qualifications on to in the framework. This proposal is quality assured by the body accrediting/approving the development of the new qualification.

### **ORGANIZATIONAL STRUCTURE**

64. Before the organizational models and an action plan are presented, it is worth giving a few thoughts to the need of an incremental approach.

### **AN INCREMENTAL APPROACH**

65. The balance between incrementalism and need for rapid reforms is an essential aspect to be aware of when deciding on an organization and action plan. Because of the need for several reforms in the Pakistani TVET sector an essential question is how to interlink the NQF development with other education reforms in an effective way. Delaying of development in one reform process (for instance development of skills standards) should wherever possible not block development in interlinked reform processes.

66. In several countries developing the NQF is assisted by a number of other necessary policy initiatives. The policy initiatives vary, but could in a Pakistani context include specific policy development on improving linkages with industry, developing skills standards, financing the potential training of officials and teachers and developing quality assurance mechanisms. These policy reforms require new legislation, budgetary allocations and institutional changes, among others. NAVTEC links two other reform initiatives in the skills strategy to the NQF: (i) reforming the apprenticeship system and (ii) offering vocational education in schools, respectively. A strategy combining the NQF with other central reform initiatives could increase the coherence of policies.

67. A modular approach could be taken in the development process, separating processes as much as possible. Establishing partial frameworks for each education sector is one such modularization of the development process. Setting up a framework for an increased involvement of the industry in the TVET sector should also be separated from the development of the NQF.

68. Box 2.11 shows the incremental approach in Scotland leading to the development of the Scottish Credit and Qualifications Framework. Forcing the development process too fast ahead may result in a prolonged implementation period, while providers, teachers and

social partners have to adjust to the new setup. On the other hand some momentum/pulling force may be necessary because of the urgent need of reforms in Pakistan, compared to the one or two decades of easing the way by several reforms in other countries. NAVTEC is aware of the medium- to long-term perspective, when referring to implementation of the NQF in industrial sectors as a process in several phases. Also TEVTA in Punjab considers implementing the NQF a medium-term initiative with duration up to four years.

### **Box 2.11. An Incremental Approach Leading to Development of the Scottish Credit and Qualifications Framework (SCQF)**

“The most significant lesson from the Scottish experience is the importance of *continuity and building on past experience*. The SCQF was not a single radical innovation and a “break from the past”, but a development which built upon a succession of “partial” framework innovations. These were:

- The 16+ Action Plan for non academic learners
- The reform of Higher National Diplomas for those seeking to progress to higher education via a vocational route
- The Credit Accumulation and Transfer scheme (SCOTCAT) for linking higher education in different institutions
- The Higher Still reform of upper secondary education

In other words, many of the building blocks for a comprehensive NQF were in place before the SCQF was launched. This did not just refer to the widening familiarity with modules, units, and framework criteria, but a growing body of *shared practices*.”

Three general features of the Scottish approach to implementation are worth mentioning:

First, it was an *incremental* approach. An important aspect of Scottish incrementalism has been the long time sequence (at least 15 years) that led to the SCQF involving a series of linked reforms. This has meant that the introduction of the SCQF has not involved any complex standard-setting procedures, or the development of new qualifications.

Second, the Scottish approach has recognized the importance of what Raffe (2003) refers to as *policy breadth*; this meant that the introduction of the SCQF depended on a number of other changes such as staff development programs that had nothing directly to do with the NQF itself, but upon which it depended.

Third, what stands out as distinctive about the Scottish case is that in its later stages, the SCQF developments were led by universities. As a result and unlike New Zealand and South Africa, the SCQF has generated no great cleavages and more important still, has not been associated only with slow learners and low achievers. Fourth, most of the “work” involved in establishing the SCQF has involved a range of different organizations that have been willing to collaborate with each other without losing their own autonomy” (Young 2005, 19).

*Source: ‘National qualifications frameworks: Their feasibility for effective implementation in developing countries’ (Young 2005). See also ‘Simplicity itself: The creation of the Scottish Credit and Qualifications Framework’ (Raffe 2003).*

## **ORGANIZATIONAL MODELS**

69. Organizing the NQF development process depends upon which NQF model is chosen, because of the different amount and types of stakeholders involved in the different NQF models. The following organization models for the development process in box 2.12 and 2.13 is based on, that the main stakeholders from the three relevant education sectors in Pakistan – general, vocational and higher education – come to an initial agreement about the essential preconditions of a Pakistani NQF. If no such agreement is sought or possible,

then the organization with few moderations can be used as model for the TVET sector alone.

### **Box 2.12. Organizing the NQF Development (Model 1)**

*A NQF Secretariat* under the Chairmanship of the Prime Minister is established. This could be NAVTEC to maintain momentum.

- Objective: The Secretariat will serve the NQF Committee and do the actual development and implementation of the overall framework and making proposals for the NQF Committee to discuss and decide upon. The Secretariat participates in subcommittees for the development of qualifications frameworks for the TVET, general and higher education sectors to support, that policy reforms in overlapping education aspects are linked with the development of the partial qualifications frameworks.

*A NQF Committee* under the Chairmanship of the Prime Minister is established.

- Organization: The committee is comprised of high ranking officials from the Ministry of Education, Ministry of Industry, Ministry of Labor, Manpower and Overseas Pakistani and Ministry of Science and Technology, including other bodies with final responsibility of the included education sectors.
- Objective: The Committee has the overall responsibility for developing and implementing the NQF and a Pakistani National Qualifications Authority (PNQA).

*NQF Subcommittees of the partial frameworks for the general, TVET and higher education sectors* are established.

- Organization: Chair of each of the three subcommittees could either be: (1) The Ministry of Education, NAVTEC and HEC, respectively; or (2) the NQF Secretariat for all three subcommittees depending on demand for strong and coherent leadership. Presiding body of each subcommittee is also Secretariat of the subcommittee. The subcommittees consist of stakeholders from the relevant education sector. For instance regarding TVET the stakeholders should include: Ministries responsible for TVET programs (Ministry of Education, Ministry of Industry, Ministry of Labor, Manpower and Overseas Pakistani), provincial TEVTA's, representatives from social partners/private sector and from teacher organizations (if such exist), and NAVTEC as NQF Secretariat, as a minimum.
- Objective: The subcommittees have responsibility for developing and implementing the partial qualifications frameworks (including defining a number of levels, describing qualifications with level descriptors and setting standards).

### **Box 2.13. Organizing the NQF Development (Model 2)**

*A Pakistani National Qualifications Authority (PNQA)* is established in the very beginning.

- Organization: The PNQA consists of stakeholders from the education sector of Pakistan appointed by the relevant Ministers, has a Secretariat of competent officials, and exists as a joint body formally referring to the above mentioned Ministries. This model could be chosen if the above mentioned Ministries want to be less involved in the NQF development phase.
- Objective: The PNQA has the same tasks and responsibilities as the NQF Committee and the NQF Secretariat (i.e. responsible for making and implementing policies of the NQF).

*NQF Subcommittees of the partial frameworks for the general, TVET and higher education sectors* are established. Same organization as in model 1, just referring to the PNQA.

Note: Skills/standards setting and quality assurance bodies need to be set up in both model 1 and 2. Sub-section 2e and 2g outline models for each of these.

## ACTION PLAN

70. An overall action plan is proposed consisting of the following 9 overall steps:
- NQF Committee and NQF Secretariat are established as mentioned in model 1. If model 2 is used, the PNQA and PNQA Secretariat are established and conducting all tasks mentioned as NQF Secretariat tasks below.
  - NQF Secretariat makes draft version of ‘NQF Essentials’ to be discussed and agreed upon by NQF Committee.
  - NQF Committee discusses and agrees on draft version of ‘NQF Essentials’.
  - Subcommittees are established. Development of partial frameworks begins, including:
    - Specific number of levels in partial frameworks
    - General qualification descriptions for each level in terms of knowledge, skills and competences
    - Possible learning pathways to other education sectors, mainly upper secondary and higher education (consultations/negotiations are taken with relevant bodies from other education sectors)
    - Connections to policy reforms on standard setting of skills/competences in the relevant sector for each subcommittee
    - When a partial framework is agreed upon by subcommittee members, including all relevant stakeholders, the frameworks should be implemented in the sector (including legislation changes, etc.).
  - When all three partial frameworks are implemented, the NQF Secretary drafts a proposal for a joint, translational, framework to be discussed by the NQF Committee.
  - A NQF Secretary final version of a Pakistani NQF is proposed for NQF Committee, including:
    - NQF essentials elaborated regarding: (i) legislation changes necessary for establishing the framework, establishing of the PNQA, etc.; and (ii) links to other education policy reforms
    - Joint framework
    - Partial frameworks
  - When PNQA is established by Government Act, maintenance and continuing development of the NQF are transferred to PNQA from NQF Committee and NQF Secretariat.
  - Communication initiatives, including establishing of website, are initiated. The NQF could have more impact if presented as an initiative covering all of the education system (which it is supposed to) instead of being presented as a TVET initiative, as proposed by the ‘National Education Policy, draft’ from the Ministry of Education.
  - Continuing training throughout development process:
    - Committee members and NQF Secretariat participate in training in the new concepts several times during the process
    - Providers and teachers participate in training on competence based learning

## **AN OVERALL IMPLEMENTATION BODY**

71. Common functions of an implementation body (often termed a Qualifications Authority) - or several bodies - include:

- Assigning qualifications to NQF levels
- Engaging and communicating with stakeholders
- Reviewing NQF design, functions and operational procedures
- Monitoring NQF effects on lifelong learning
- Advising ministries on policy implications of monitoring
- Quality assurance responsibilities

72. Different models exist regarding the degree of authority in the NQF implementing body. South Africa Qualifications Authority (SAQA) may be the only current example of a Qualifications Authority encompassing all other bodies, including standards setting bodies and quality assurance bodies. Box 2.14 gives an overview of SAQA. A body with less authority would still have responsibility for quality assurance and accreditation, but would have limited or no prescription power over awarding bodies, possible some oversight functions. For instance, the setup in Ireland is different from South Africa. Here the National Qualifications Authority of Ireland (NQAI) is responsible for the Irish NFQ, while two councils (FETAC and HETAC - Further/Higher Education and Training Awarding Council, respectively) are separate standard setting bodies. The NQAI still has quality assurance responsible regarding the FETAC's and HETAC's performance of their functions.

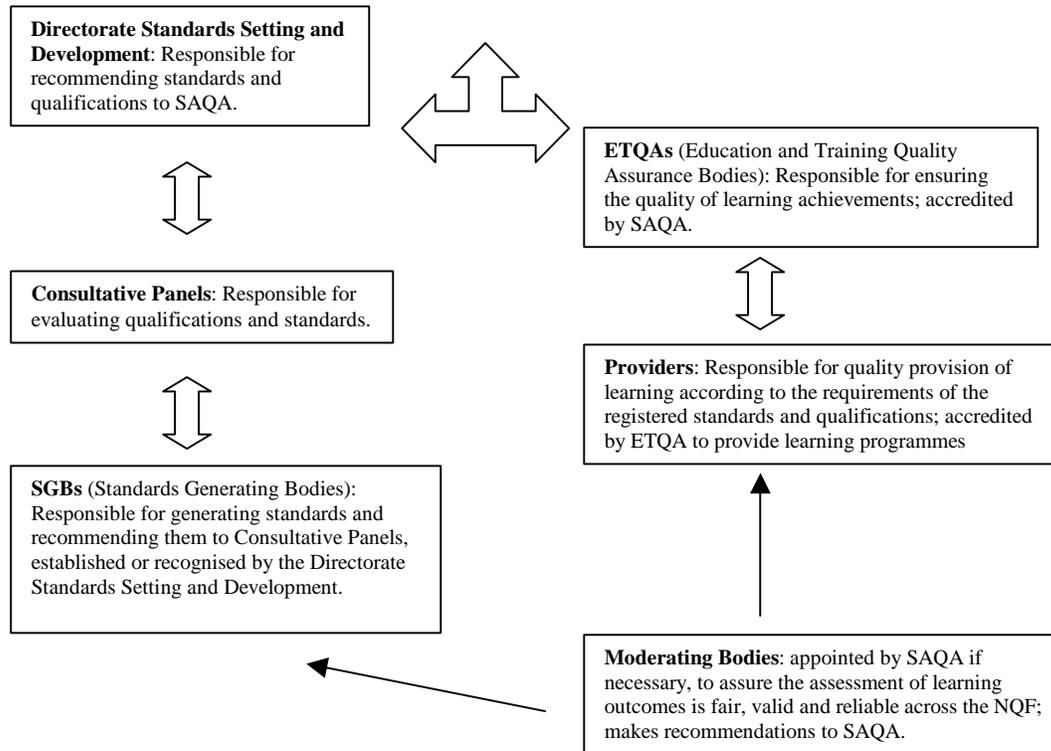
73. In Pakistan, the NQF Subcommittees are suggested to have responsibility of the development and implementation of each partial framework to ensure momentum. This means that an overall implementation body in Pakistan (perhaps a Pakistani National Qualifications Authority) should focus on overall and cross-sector aspects in relation to the joint, translational, framework, at least in the beginning.

## Box 2.14. NQF Organizational Structure in South Africa

The South Africa Qualifications Authority (SAQA) was created by the SAQA Act of 1995. The functions of the SAQA are twofold:

- To oversee the development of the NQF, by formulating and publishing policies and criteria for the registration of bodies responsible for establishing education and training standards or qualifications and for the accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards and qualifications
- To oversee the implementation of the NQF by ensuring the registration, accreditation and assignment of functions to the bodies referred to above, as well as the registration of national standards and qualifications on the framework. It must also take steps to ensure that provisions for accreditation are complied with and where appropriate, that registered standards and qualifications are internationally comparable

**SAQA:** The Authority consists of approx. 29 persons, appointed by the Minister of Education and Labour, who represent the national stakeholders in the education and training system; is responsible for making and implementing policy through the Executive Office.



Source: South Africa Qualifications Authority ([www.saqa.org.za](http://www.saqa.org.za))

## POLICY RECOMMENDATIONS

74. The paper considers eight essential issues for developing a National Qualification Framework in Pakistan. The paper:

- Outlines **NQF objectives** to promote transparency, comparison and progression in the Pakistani education system, increase linkages between industry and education system and promote Pakistani qualifications in an international context.
- **Anchors the NQF with other policy reforms** in at least the following areas:
  - Development of standards for competences/skills
  - Linkages with industry
  - Competence based training
  - Quality assurance of education
- Bases the **scope of the NQF** on the partial model initially. Three partial frameworks covering the three main education sectors – general, vocational and higher – and all provinces in Pakistan should be the starting point. Each education subsector should develop a partial framework, allowing different paces and phases for each partial Qualifications Framework. If possible, the main stakeholders from the three education sectors should aim for a joint translational framework to link the partial frameworks together in the long-term perspective.
- Presents the **implementation mode of the NQF as an incentivized framework**. The incentives focus should incorporate all qualifications leading to relevant certificates and diplomas. Providers – public as well as private – of these qualifications are to meet the framework criteria, if they want the benefits put forward. Public funding could gradually be restricted to institutions and programs leading to recognized qualifications to provide incentive for use of the NQF. Further, the NQF development and implementation process should be incremental, meaning that:
  - An action plan should be medium-term allowing time to commitment and training of developers and officials.
  - Implementation process should be modularized, allowing setup of different initiatives/sub-policies to be implemented successfully independent of the success of the overall implementation process.
- **Recommends that the NQF be competence based**. Hence, it would be outcome-based with competence descriptions as part of the framework. The competence based approach should be combined with use of new curriculum avoiding a too radical shift in learning approach for providers and teachers. Competence descriptions should be supplemented with guidelines on how to develop curriculum corresponding to the competences. If curriculum is

developed at provincial level, it should be voluntary to use by these teachers/providers.

- Advises that the **social partners (employers and employees) should be involved at the earliest in the development of the NQF**. Further, the NQF should be only one policy in an overall reform to link with the social partners. Linkages should be pervasive at the national, provincial and local level; including the delegation of decision power to representative of employers and employees.
- **Quality assurance** responsibility should be divided between the above mentioned bodies and include:
  - Description of learning outcome of qualifications
  - Quality assurance of learning outcome and development of qualifications
  - Quality assurance of the NQF itself (i.e. accrediting the placing of qualifications on proper levels in the framework)
- Establishes an **organizational structure** consisting of:
  - A forum at Ministerial level comprised by Ministries with responsibility of education in Pakistan to oversee NQF development and implementation
  - A body delegated with overall NQF development and/or implementation responsibility
  - Bodies responsible for development and implementation of the partial frameworks. The bodies are either under the NQF development body or independent bodies
  - Bodies responsible for development of skills standards, as part of the standard setting policy initiative

75. Establishing a NQF in Pakistan will benefit from a more thorough analysis in certain topics. Further knowledge is needed on how to integrate NQF development with other education reforms, especially quality assurance mechanisms and setting up skills standards. Also further knowledge of an incentivized mode of implementation is needed. The method of analysis should include interviews with officials and experts from low- and middle-income countries with experiences in NQF development. South Africa, Malaysia and countries from Eastern Europe and the Caribbean are possibilities.

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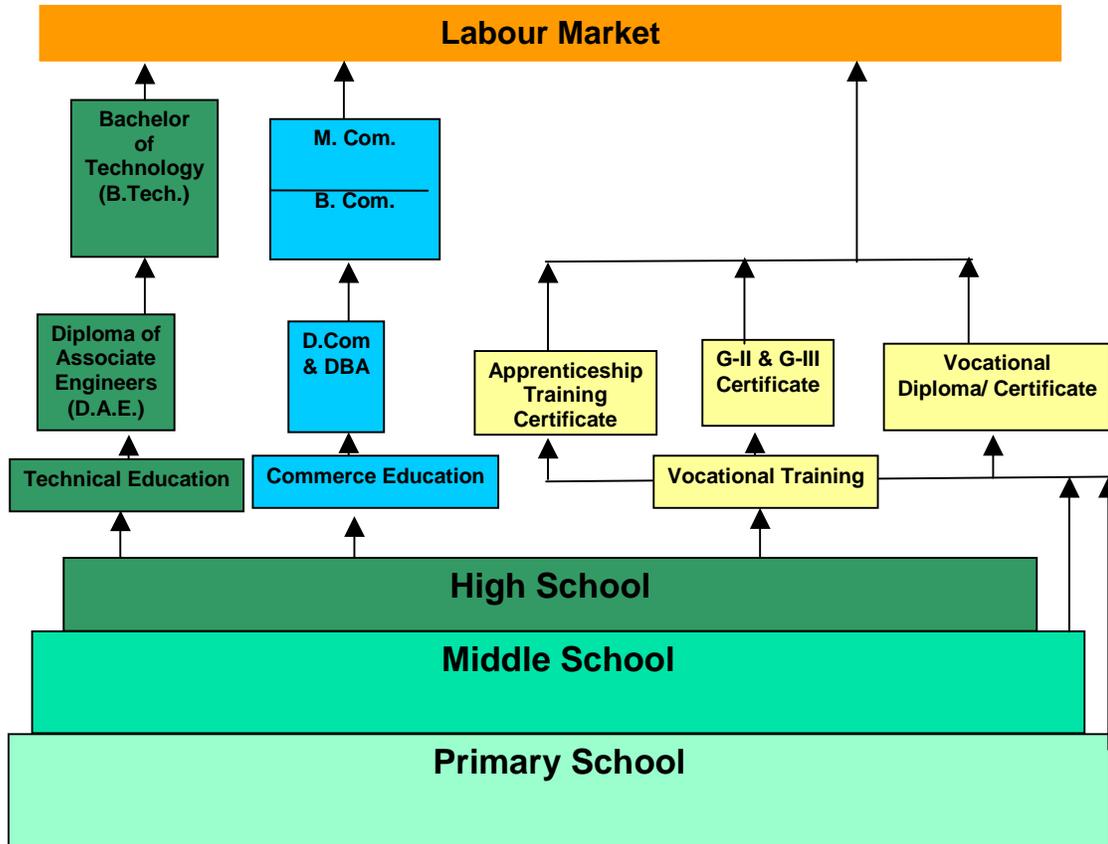
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## ANNEX 1: THE EDUCATION SYSTEM IN PAKISTAN

| Grade (Class) | Age     | Level                          | Credential  | Institution |
|---------------|---------|--------------------------------|---|-------------|
| I             | 5/6     | PRIMARY                        |   | School      |
| II            | 6/7     |                                |   |             |
| III           | 7/8     |                                |   |             |
| IV            | 8/9     |                                |   |             |
| V             | 9/10    |                                |   |             |
| VI            | 10/11   | MIDDLE                         |   |             |
| VII           | 11/12   |                                |   |             |
| VIII          | 12/13   |                                |   |             |
| IX            | 13/14   | SECONDARY                      | Secondary School Certificate<br>Matriculation<br>Also called Matric   | College     |
| X             | 14/15   |                                |   |             |
| XI            | 15/16   | HIGHER SECONDARY<br>/TECHNICAL | Intermediate Certificate / Higher Secondary School Certificate<br>Also called FSc/FA  |             |
| XII           | 16/17   |                                |   |             |
| XIII          | 17/18   | HIGHER EDUCATION               | <u>First Stage</u><br>Bachelor's Degree (BA/BSc/Bed.)<br><br><u>Second Stage</u><br>Master's Degree (MA/MSc/LLB)<br><br><u>Third Stage</u><br>(MPhil/PhD)<br>(DLitt/ DSc/LLD) | University  |
| XIV           | 18/19   |                                |   |             |
| onwards       | onwards |                                |   |             |
|               |         |                                |   |             |

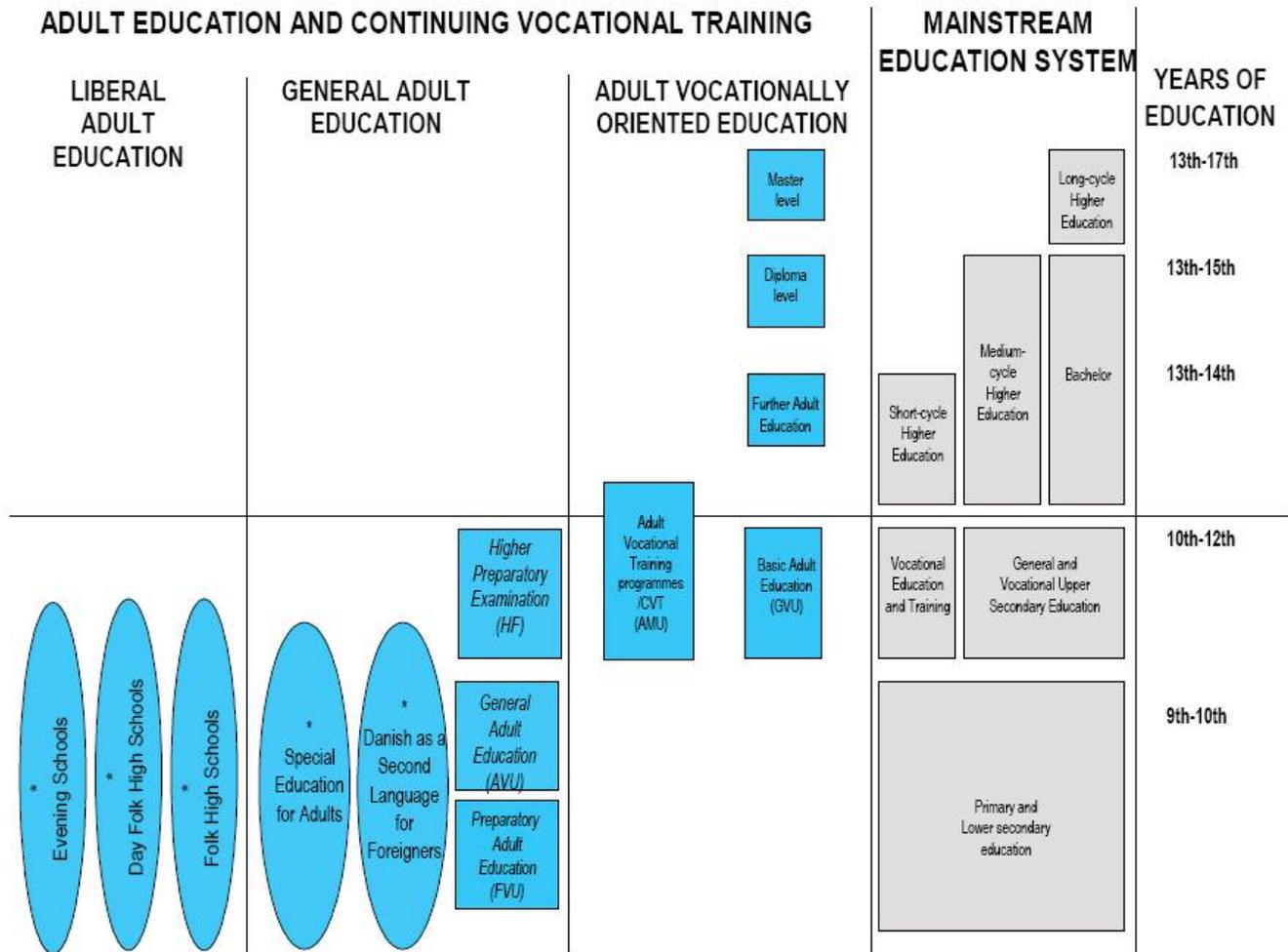
*Source: Reproduced from 'Pakistan Higher Education Policy Note' (World Bank 2006) which referred to: Central Bureau of Education and Provincial Bureau of Statistics (2004), Pakistan Statistical Year Book 2004 (A Global Guide to Management Education 2006, By Jamshed Hasan Khan, PhD), and Ministry of Education, Islamabad, updated by the International Association of Universities (IAU) from IBE website - World Higher Education Database (WHED)*

## ANNEX 2: THE TVET SYSTEM IN PAKISTAN



Source: Punjab TEVTA

## ANNEX 3: THE EDUCATION SYSTEM IN DENMARK

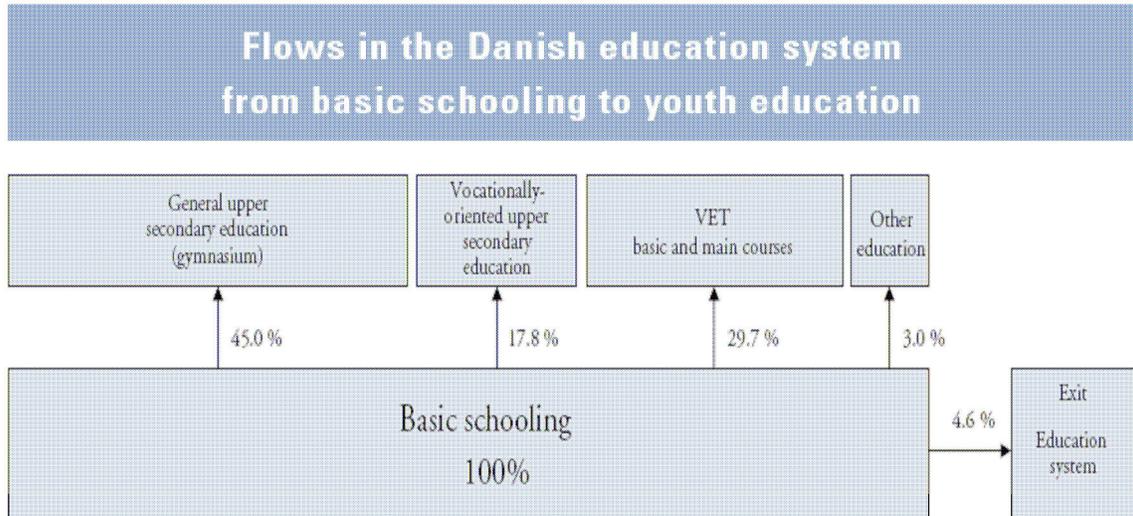


\* The level can not be indicated precisely

Note: The drawing only shows levels, not extent of activities

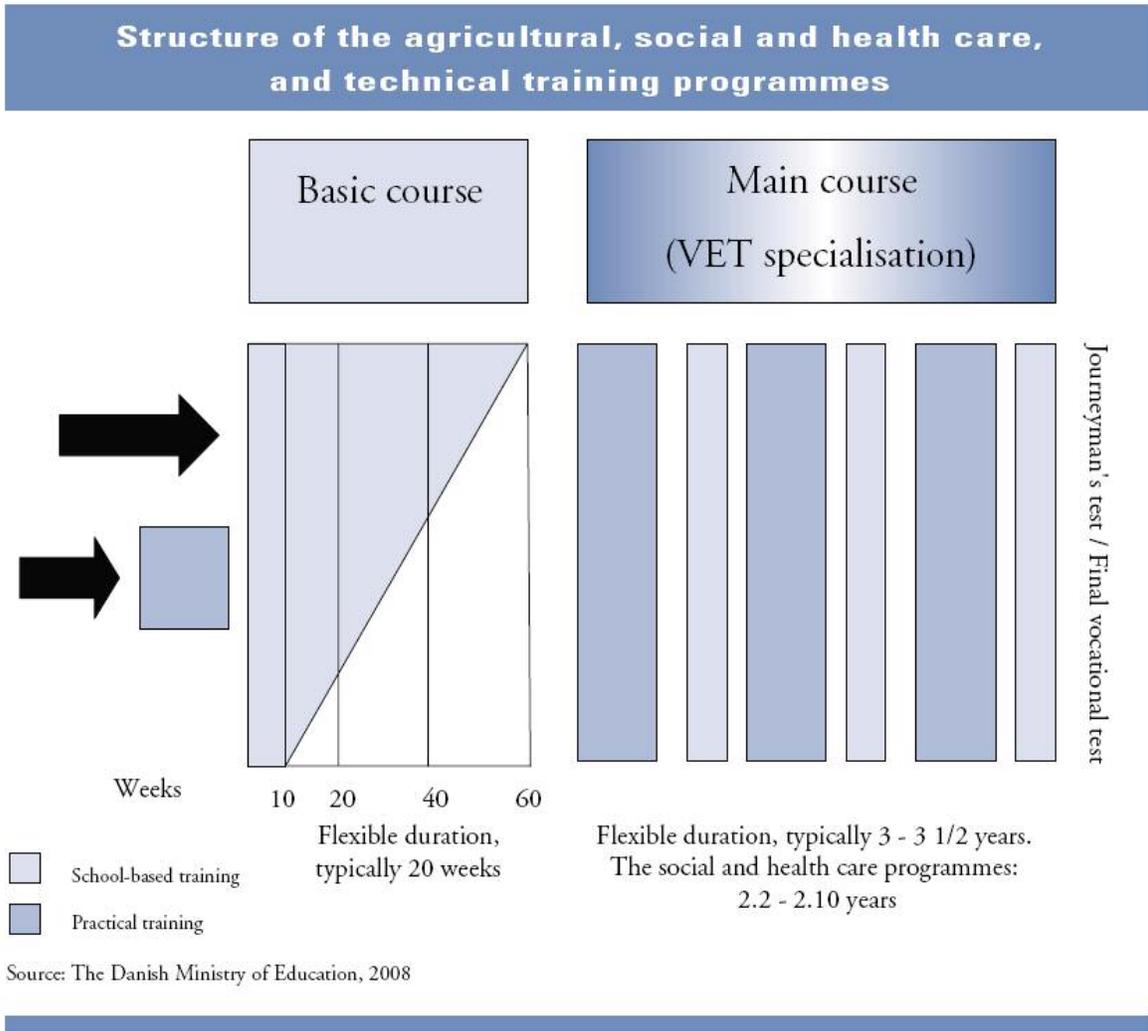
Source: Ministry of Education in Denmark ([www.uvm.dk](http://www.uvm.dk))

## ANNEX 4: FLOWS IN THE DANISH EDUCATION SYSTEM FROM BASIC SCHOOL TO YOUTH EDUCATION

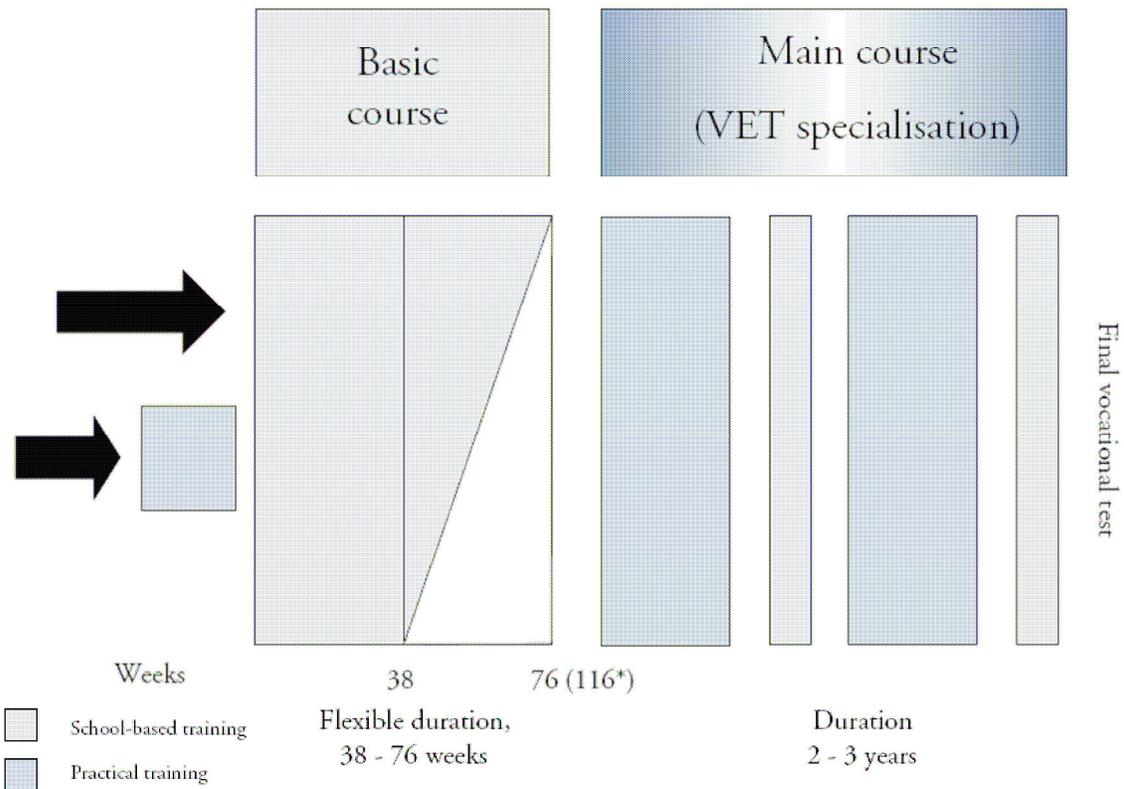


Source: *Facts and Figures 2007*, The Danish Ministry of Education, 2008.

## ANNEX 5: STRUCTURES OF DANISH VET PROGRAMMS



## Structure of the commercial training programmes



\* The basic course may be prolonged by up to 40 weeks of optional training

Source: The Danish Ministry of Education, 2008

## ANNEX 6: VOCATIONAL EDUCATION AND TRAINING IN DENMARK<sup>5</sup> - PROVISION AND PARTICIPATION

76. Like in the rest of EU Member States, vocational education and training plays a key role in implementing the national strategy for lifelong learning in Denmark. The challenges of economic globalization and technological development are major drivers behind the political concerns on vocational education and training, which increase competition among nations but also lead to new forms of global specialization and collaboration. This annex concentrates on (1) vocational education and training targeting youths approximately age 16 and up and (2) vocational training for unskilled and skilled adults.<sup>6</sup> Besides these two education sectors in Denmark vocational educations also exists on different levels in the higher education sector.

### Facts about the Danish Education System

Denmark is a small country with a surface area of 43,000 square kilometers (excluding Greenland and the Faroe Islands). With a total population of 5.4 million inhabitants, the country is densely populated. The majority of the population lives in towns or cities, with only 15% living in rural areas. In contrast to many other countries, Denmark's population is relatively homogeneous – only 9% have a foreign background.

#### *The Danish education system*

- More than 99 % of all children attend preschool class
- More than 80 % of a youth cohort completes an academic or vocational education program
- 45 % of a youth cohort completes a higher education program
- There are no tuition fees for state upper secondary education and higher education, and the state provides educational grants and state-guaranteed loans
- Total state expenditure on education amounted to \$25 billion in 2005, corresponding to 8 % of GDP.

#### *Overall aims for educational reforms*

- All children shall have a good start in school
- All children shall achieve good academic knowledge and personal skills
- 95 % of all young people shall complete a general or vocational upper secondary education by 2015
- 50 % of all young people shall complete a higher education program by 2015
- Everyone shall participate in lifelong learning

Source: *Denmark's Strategy on Lifelong Learning* (2007)

<sup>5</sup> This annex is informed by *Denmark's Strategy for Lifelong Learning* (2007), *The Danish Vocational Education and Training System* (2008), *The Development and State of the Art of Adult Learning and Education* (2008) and *New Adult Vocational Training Concept* (2004).

<sup>6</sup> The term VET is used in different ways in EU Member States. In this paper VET refers to vocational education and training mainly for youths age 16 and up. Adult vocational training is referred to by the abbreviation AMU (*Arbejdsmarkedsuddannelser* in Danish).

## VET: EDUCATIONS AND PARTICIPATION

77. Approximately one third of a youth cohort enrolls in a VET program after basic schooling.<sup>7</sup> The number of young people who enter a VET program is decreasing as the current trend for young people is to opt for the more academically-oriented upper secondary education programs.

78. Approximately 80% of those completing a VET program enter the labor market and are employed in a company one year after completion.

79. The drop-out rate is a problem in the Danish VET programs. Only around 70% complete the basic course and 80% complete the main course. Many of the trainees who drop out continue in other VET programs or in the general upper secondary education programs, but 40% of all dropouts are still estimated not to continue any education or training program within the following ten years.

80. The VET system encompasses programs of durations from 18 months to 5.5 years. The programs are divided into two parts: A *basic course*, which is broad in its scope and a *main course*, in which the trainee specializes within a craft or a trade (See annex 4 for an overview of the program structure). There are 12 basic courses, of which the commercial, building and construction, technology and communication, and the social and health care programs are the most popular.

81. One of the main principles in the Danish VET system is that of dual training, whereby training alternates between education and training in a vocational college (1/3-1/2 of the entire training program) and in-company training (1/2-2/3). This dual training principle is both a pedagogical principle and an organizational-institutional principle, which makes demands on both the pedagogical planning of the programs and on the cooperation between the colleges and the enterprises.

82. Most trainees enter VET via the basic course and then apply for an apprenticeship once they have completed the course. Everybody who has completed basic schooling can be admitted to the basic course; but a contract with an enterprise is required in order to continue on the main course. If a trainee cannot obtain an apprenticeship, he or she can enroll in school-based practical training.

83. The VET programs are concluded with either a journeyman's test or a final project-based examination, in which the trainee is required to show that he or she has acquired the skills necessary to work as a skilled worker within his/her trade.

84. In 2008, there are 115 vocational colleges' nationwide providing VET programs. The colleges are approved by the Ministry of Education to provide specific basic and main programmes. The colleges provide not only VET, but also adult vocational training (AMU) and short-term higher education (KVU, Danish for *korte videregående uddannelser*).

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<sup>7</sup> Annex 4 shows all flows in the Danish education system from basic school to youth education.

Furthermore, the commercial and technical colleges provide vocationally-oriented technical and commercial upper secondary education programs (htx/hhx) that qualify for both employment and admission to higher education.

### **ADULT VOCATIONAL TRAINING (AMU): TRAINING AND PARTICIPATION**

85. Adult vocational training is short vocational training programs mainly for low-skilled and skilled workers on the labor market. 33 % of the workforce in Denmark has primary education (9-10<sup>th</sup> grade) as highest education level attained. The adult vocational training programs serves to contribute to maintaining and improving the vocational skills and competences of the participants in accordance with the needs on the labor market and to contribute to solving labor market restructuring and adaptation problems.

86. Approximately 2800 adult vocational training programs and 300 single subject courses from the mainstream VET programs are part of the AMU system. These are structured in about 120 joint competence descriptions each of which corresponds to one job area for low-skilled and skilled workers. The specific content of the programs reflect development and demands from sectors with many low skilled and skilled workers. About 500-800 programs are developed or revised every year, indicating a high degree of flexibility according to labor market needs. The duration of the programs normally varies from half a day to 6 weeks, in average 3 ½ days.

87. In addition a special program for recognition of prior learning exists in the AMU system. The aim is to recognize competences acquired in education and training, on the labor market or from spare time activities. Also immigrants and refugees not having adequate Danish language skills to join ordinary adult vocational training courses, can join specifically developed programs targeting this group, for instance Danish language courses combined with short introductory training courses and work placement.

88. Upon completion of a program the participants receive a certificate. The teachers assess the participants and almost everyone gets a certificate. For about 150 of the training programs the participants have to pass an exam and receive a formal, qualifying certificate recognized by the legal authorities (for instance crane driver, truck certificate, taxi driver, etc.). All certificates from the adult vocational training program are qualifying for the national labor market. Certificates from adult vocational training programs do not give direct access to further education in mainstream education or in other adult education and training programs.

89. The training is flexibly organized and takes place at education and training institutions, in companies or as distance learning. The training can be completed full-time and part-time or, on any day of the week, and at all hours including night time.

90. In 2006 around 617.000 course participants took part of an adult vocational training program. This corresponded to 318.000 individuals participating in one or more of the programs.

91. In 2008, approximately 120 institutions offer adult vocational training programs. Many of these institutions are vocational colleges with a main provision of VET for youths, but institutions can also be vocational training centers only offering adult vocational training programs or private institutions, as driving schools.

92. In 2004 expenditure amounted to a total of \$1 billion, of which \$560 million for education activities, \$330 million for special allowances. Employers contributed with \$200 million, and \$145 million were financed through tuition fees

# ANNEX 7: THE SCOTTISH CREDIT AND QUALIFICATIONS FRAMEWORK

## THE SCOTTISH CREDIT AND QUALIFICATIONS FRAMEWORK

scqf scottish credit and qualifications framework

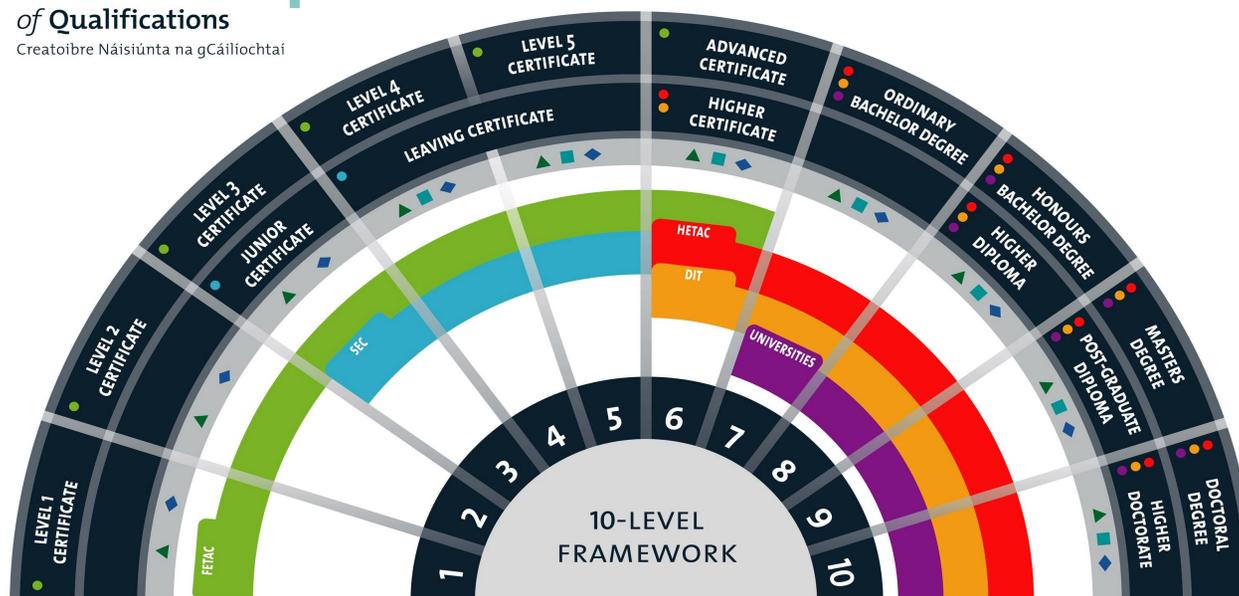
| SCQF Levels | SQA Qualifications                       |                                |                                    | Qualifications of Higher Education Institutions               | Scottish Vocational Qualifications |
|-------------|--|--------------------------------|------------------------------------|---|------------------------------------|
| 12          |  |                                |                                    | DOCTORATES  |                                    |
| 11          |  |                                |                                    | MASTERS<br>POST GRADUATE DIPLOMA<br>POST GRADUATE CERTIFICATE | SVQ5                               |
| 10          |  |                                |                                    | HONOURS DEGREES<br>GRADUATE DIPLOMA                           |                                    |
| 9           |  |                                | PROFESSIONAL<br>DEVELOPMENT AWARDS | ORDINARY DEGREE<br>GRADUATE CERTIFICATE                       | SVQ4                               |
| 8           |  | HIGHER NATIONAL<br>DIPLOMA     |                                    | DIPLOMA OF HIGHER<br>EDUCATION                                |                                    |
| 7           | ADVANCED HIGHER                          | HIGHER NATIONAL<br>CERTIFICATE |                                    | CERTIFICATE OF<br>HIGHER EDUCATION                            | SVQ3                               |
| 6           | HIGHER                                   |                                |                                    |   |                                    |
| 5           | INTERMEDIATE 2<br>CREDIT STANDARD GRADE  |                                |                                    |   | SVQ2                               |
| 4           | INTERMEDIATE 1<br>GENERAL STANDARD GRADE | NATIONAL<br>CERTIFICATES       | NATIONAL<br>PROGRESSION AWARDS     |   | SVQ1                               |
| 3           | ACCESS 3<br>FOUNDATION STANDARD GRADE    |                                |                                    |   |                                    |
| 2           | ACCESS 2                                 |                                |                                    |   |                                    |
| 1           | ACCESS 1                                 |                                |                                    |   |                                    |

NOTES

- The new Skills for Work courses are National Courses available as Access, Intermediate and Higher Qualifications (SCQF levels 3 – 5).
- Ongoing work to credit rate SVQs shows that SVQs with range from SCQF level 4 to level 12. SVQs at 2 and 4 can be placed at different SCQF levels.

scqf | SCOTLAND'S LIFELONG LEARNING FRAMEWORK www.scqf.org.uk

# ANNEX 8: THE IRISH NATIONAL FRAMEWORK OF QUALIFICATIONS



## KEY

- FETAC - Further Education and Training Awards Council
- SEC - State Examinations Commission (*Department of Education & Science*)
- HETAC - Higher Education and Training Awards Council
- DIT - Dublin Institute of Technology
- Universities

## AWARDS IN THE FRAMEWORK

There are four types of award in the National Framework of Qualifications:

- Major Awards: are the principal class of awards made at a level
- ▲ Minor Awards: are for partial completion of the outcomes for a Major Award
- Supplemental Awards: are for learning that is additional to a Major Award
- ◆ Special Purpose Awards: are for relatively narrow or purpose-specific achievement

