India

India has set itself the target of skilling 500 million people by 2022. To this end. In 2009 the government adopted a *National Skill Development Policy* (NSDP), which aims to guide the skills development strategies and initiatives of all stakeholders (MoLE, 2009). The NSDP hopes to accomplish the above mentioned targets through the use of instruments such as National Qualifications Frameworks. Two frameworks have been proposed. One is the *National Skills Qualifications Framework* (NSQF) for the skills sector, proposed by the Ministry of Labour and Employment (ibid.) and originally funded by the World Bank (2008); the other is the *Vocational Education Qualifications Framework* (NVEQF) for the TVET and higher education sectors, proposed by the Ministry of Human Resources Development (MHRD). The intention is to integrate the NVEQF into the NSQF that is currently under development within the *India-EU Skills Development Project* (MHRD, 2012). One of the reasons for this integration is the strong skills development focus of India's national policy. Given that India is expected to have a 56 million workforce surplus as against a shortage of 47 million in Western countries, the *India–EU Skills Development Project* will cater to the global market and support labour force mobility for the ever-changing employment market.

Challenges that the NQF addresses

Indian polity and society sets sights on becoming an important source of talent for global and national businesses. The country's great challenge is to ensure that its workforce possesses skills appropriate to the needs of both its internal economy and the global economy. At present only 12 per cent of young people aged 18 to 24 are enrolled in higher education. India thus falls not only well below the OECD average of 80 per cent on this count, but also below the global average of 23 per cent (Odisha HRD, 2011). National policies aim by 2020, to enrol 30 per cent of Indian youth in higher education (Indiainfoline, 2011; Indian Express, 2011). The Government of India is currently seeking to create alternative pathways to post-secondary and higher education. It also aims to create job opportunities for 150 million students who will not have access to higher education by 2020. Only 10% of the Indian labour force has acquired vocational skills, of which 8% have done so by working on the job. The 13-30 age group in the Indian population is currently growing by 28 million people each year, but there are only about 2.5 million vocational training places available in the country (MHRD, 2011). It is also difficult for people with informally-acquired skills to move from non-formal, informal and work-based learning environments to formal programmes, because there are limited mechanisms for recognising knowledge and skills acquired outside formal institutional settings.

The informal economy (in India, this is termed the unorganised sector) ─ both rural and urban ─ employs up to 94% of the national workforce; most of the training programmes, however, cater to the organised sector (NCEUS Report, 2009). ILO's definition of the informal economy comprises three categories: (i) small or micro-enterprises, (ii) household-based activities carried out by family members, and (iii) independent service activities including domestic helpers, street-vendors, cleaners, street vendors, shoe-shiners and so on (ILO, 1998, p. 168).

Main policy objectives

The NVEQF is a national education and competency-based skills framework that provides multiple pathways both within vocational education and between general and vocational education. It will enable learners to progress to higher levels from any starting point in the education and/or skills development system (MHRD, 2012). The key elements of the NVEQF are to provide:

- national principles for vocational education (VE), leading to international equivalency;

- multiple entry and exit options between vocational education, general education and job markets;

- progression within vocational education;

- transfer between vocational education and general education; and

- partnership with industry/employers

The NVEQF is a descriptive framework that organizes qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of learning outcomes (i.e., the competences which learners must possess regardless of whether they were acquired through formal, non-formal or informal education and training). Qualifications are made up of occupational standards for specific areas of learning units. This allows learners, educators, training providers and employers to gain information about the broad equivalence of qualifications across specific skill sectors.

The NVEQF also aims to include a range of qualifications that are currently being provided through TVET programmes run by more than 17 Ministries (MHRD, 2011). A further objective is to enhance flexibility in the provision of vocational courses and development of a 'modular' competency-based curriculum in collaboration with industry. The MHRD is also involving industry representatives in preparing the NVEQF and in developing a strategy to compensate for the acute shortage of labour at levels 2 and 3 (Press Information of India, 2010).

Involvement of stakeholders

The NVEQF is currently in the process of being implemented in tandem with the NSQF. While the Ministry of Human Resource Development (MHRD) is responsible for the NVEQF and coordinates the efforts of different players in the vocational education sector, it is the Ministry of Labour and Employment (MoLE) responsible for the skills and training sector. Other stakeholders are the National Skills Development Corporation (NSDC), the Directorate General for Employment and Training (DGE&T), the National Council for Vocational Training (NCVT), the Office of Advisor to the Prime Minister – National Council on Skill Development (NCSD).

The National Skill Development Corporation (NSDC) is mandated with the constitution and notification of the Sector Skill Councils (SSC), which define the National Occupational Standards (NOS) for the respective skills sectors. The SSCs, in turn, is responsible for engaging with the central- and state-level implementing agencies in developing the curriculum package, in the engagement and capacity building of vocational teachers, and in the assessment and certification of the skills imparted.

Awarding bodies ─ such as School Boards (including of distance education Open Schools), Boards of Technical Education, the Central Board of Secondary Education (CBSE), the All-India Council for Technical Education (AICTE) and the University Grants Commission (UGC) ─ are expected to ensure that the curriculum is designed and delivered in consultation with industry and trade associations and that it conforms to the NVEQF's national standards (MHRD, 2012). Central and State Governments and employers will amend the recruitment policies, rules and procedures so that preference is given to people with competence-based qualifications that have been recognised within the NVEQF (MHRD, 2012).

Levels and descriptors and use of learning outcomes

The NVEQF is organized as a series of levels of competency/skills, arranged in ascending order from Recognition of Prior Learning (RPL) 1 and RPL 2, leading into levels 1 to 10. NVEQF levels are defined in terms of learning outcomes (i.e., the competences which the learners must possess regardless of whether they were acquired through formal, non-formal or informal education and training). Each level on the NVEQF is described by a statement of learning known as a level descriptor as illustrated (MHRD, 2012). The NVEQF level descriptors provide a broad indication of learning outcomes specified in the National Occupation Standards (NOS) that are appropriate to a specific qualification at that NVEQF level.

Table 1   Qualifications by levels across the NVEQF

Level	Certificate	Case I Equivalence	Case II Equivalence	Certifying Body
10	NCC 8	Degree	Doctorate	University and SSC^
9	NCC 7			University and SSC^
8	NCC 6		Masters Degree	University and SSC^
		PG Diploma		
7	NCC 5	Advanced Diploma *	Bachelors Degree**	*Board of Technical Education and SSC^
6	NCC 4			**University and SSC^
5	NCC 3			*Board of Technical Education, and SSC^ **School Board and SSC^
4	NCC 2	Diploma*	Grade XII**	
3	NCC 1		Grade XI**	
2	NCWP 2	Grade X	Grade X	School Board and SSC^
1	NCWP 1	Grade IX	Grade IX	School Board and SSC^
RPL	RPL 2	Grade VIII	Grade VIII	NIOS /State Open Schools and SSC^
	RPL 1	Grade V	Grade V	NIOS /State Open Schools and SSC^

RPL= Recognition of Prior Learning

NCWP = National Certificate for Work Preparation

NCC = National Competency Certificate

^ = Joint certification with industry (Sector Skill Councils) would entail assessment for skills by SSC/industry.

* = present Polytechnic Diploma where entry is after Class 8.

** = Advanced Diploma is third year of the present Polytechnic Diploma

Source: MHRD, 2012.

Progression pathways and recognition and validation of non-formal and informal learning

The NVEQF will open up several entry and exit points between vocational education and training and general education and will facilitate movement between these areas. The NVEQF will emphasise industry participation in vocational education, with a specific focus on creating opportunities for students who are unable to enter colleges and universities. Vocational education courses will be

designed, assessed and certified in consultation with industry and employer. Industry will be encouraged to partner with educational institutions so that vocational students can work on their premises. While theoretical knowledge will be imparted in the educational institutions, skills will be imparted by accredited (by multiple accreditation agencies) providers known as 'skill knowledge providers' (SKP). Workshops will be set up for a cluster of schools, polytechnics, and other government institutions, and where possible, in industry.

The NVEQF also stresses that colleges and universities should enable a seamless transition from the VE secondary level (Class X –XII) to the undergraduate level, namely the Bachelor of Vocational Studies In order to ensure the compatibility between academic courses and work elements, the University Grants Commission (UGC) created a task force in 2006 to standardize knowledge and skills imparted by educational institutions and industrial training programmes to formulate the National Qualifications Framework.

Vocational training is the responsibility of the MoLE, which has been in the forefront of developing courses for school leavers through a network of more than 5,000 Industrial Training Institutes (ITIs) located all over the country. The NVEQF will improve the progression pathways between formal TVET programmes in schools and Industrial Training Institutes, and will also improve progression opportunities to Polytechnics, Colleges of Engineering and higher education more generally and ultimately to employment.

The NVEQF levels will also be linked to the Skill Development Initiative (SDI) through Modular Employable Skills (MES) which is currently a competency-based training pathway providing the minimum skill sets needed for gainful employment. The programme targets workers, out of school youth, unemployed, previously child labour and ITI dropouts (DGE&T, 2008).

Skills recognition and certification initiatives in the informal economy through Recognition of Prior Learning (RPL) processes will provide an important pathway for the 90 per cent of Indians who work in the so-termed unorganised sector (NCEUS Report, 2009). However, the process of skills recognition in the informal economy will need to be accompanied by provision of RPL infrastructure which is affordable, reliable and efficient. There will be challenges in identifying where skills exist, documenting those skills, communicating to the potential candidates, as well as administering the process. Methods will need to be established, such as portfolio review, written/oral exams, and demonstrations. A relatively open examination system relating to a national qualifications framework and the relevant standards would need to be created for more transparency, so that it benefits those people who have acquired their knowledge and skills outside the education system. Guidance and information campaigns will be needed for the learner to be guided through the process (Singh, 2011).

Since NQFs cannot themselves generate RPL, efforts are being made to link up non-formal skills development programmes with the NVEQF. This will give those who have gone through second-chance non-formal learning a chance to enter the formal education system through equivalency programmes. The National Institute for Open Schooling (NIOS), which offers distance learning courses for out-of-school youth and adults, will align non-formal learning courses to suit the requirements of NVEQF levels and will also play a major role in offering bridge or foundation courses for seamless progression of learners from one level to another. The recognition of prior learning is an important component of this process. The NIOS will be instrumental in conducting assessment through RPL at both the lowest levels and at community colleges and polytechnics, the latter offering qualifications such as associate diplomas (MHRD, 2012). The objectives of RPL will be two-fold: (1) recognition of prior learning or qualifications acquired outside the formal education system; and (ii) recognition of credits obtained through formal learning.

An indicative credit framework has also been proposed (MHRD, 2012). For each job role and each level of learning a credit framework has the dual objective of achieving a skill certificate as well as an academic general education certificate of equivalent level. School Boards, Technical Boards and universities are encouraged to switch to credit-based curriculum for general education and also to establish an equivalency between vocational education and general education (MHRD, 2012).

Referencing to regional frameworks

As more NQFs develop, more possibilities for transnational comparisons arise. Worker and learner mobility is increasing and diversifying. Socio-economic development and contexts for international mobility and recognition, however, differ greatly from one region to another. The International Labour Organisation has developed Regional Model Competency Standards (RMCS) to improve the mechanisms of assessment of skills developed during overseas assignments, that is, gained during employment in another country than the one in which one usually lives. It is also hoped that opportunities for enhanced cooperation in the South Asia region will be promoted through the development of these mechanisms (ILO, 2011).

Important lessons

An important lesson to be drawn from the case of India is that while both NVEQF and the current NSQF are informed by international experience, India needs to develop and implement a national qualifications framework based on the particularities of its own context.

It is also necessary to draw a balance between the public sector and private sector provision.

Studies (IAMR, 2010; Teamlease, 2007) have also shown that the biggest challenge is to improve the progression possibilities of those who are currently engaged in non-degree courses within Industrial Training Institutes (operating under the Ministry of Labour and Employment) that currently have limited progression possibilities to Polytechnics and Colleges of Engineering and more generally to higher education (TeamLease, 2007). Strengthening such linkages between the skills sector and vocational education will call for a greater cooperation between MoLE and MHRD.

Another challenge to take note of is that India has a strong culture of on-the-job learning but a severe lack of in-service continuing formal training. Not more than 17 per cent of manufacturing establishments in India provide in-service continuing professional training (Tan and Savchenko, 2005). There is therefore a need to overcome the traditional divide between education and training and working life. In this climate of rapid change such a strict divide can no longer be sustained and it is important to see the need for learning as relevant both before and during employment (Singh, 2012).

The strong emphasis on competences and learning outcomes, and the current initiatives around NVEQFs and NSQF to ensure that education and training reforms have an impact on improving employment opportunities for all, are indicative of a positive future. However, as Young and Alias (2011) stress, outcomes must be complemented by inputs (i.e., the knowledge that learners need to acquire if they are to be capable of moving beyond existing performance levels). One of the aims of the NSQF Curriculum development initiative is to involve professionals from industry and polytechnics in designing syllabuses and assessing units of knowledge.

Overall, India's development of NSQF and NVEQF in the context of its skills development policy has flagged the need to continue to be responsive to its labour market and population. The joint effort and the consensus of relevant and visible leaders comprising employers, workers, educators, and government officials will be the single most important factor for success.

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