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Republic of South Africa Systematic Country Diagnostic

An Incomplete Transition: Overcoming the Legacy of Exclusion in South Africa

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Background note

Job Training in Korea

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A Brief Review of Vocational Training in Korea

When reviewing Korea's experience in vocational training, the legal frameworks and policy implementation provide other country's government with valuable information, simply because the vocational training policies and skills qualification systems were developed along with its relevant legislation. In this paper, we briefly report on these legal frameworks and policies. The history of Korea's skills training can be divided into two periods around 1995. In the first period, mandatory skills training was emphasized especially for supplying the manufacturing sectors with skilled workers. However, in the second period, under the umbrella of the Employment Insurance System, it was extended to provide skills training for all. The government of less developed country could have greater interest in the earlier stage of the skills training and financing system because its urgent need was the massive supply of skilled workforce for the labor-intensive industries such as textiles, garments, and electric product assembly.

In 1967, during the first five-year economic development plan period (1962–1967), the Vocational Training Act (VTA) was enacted. The main purpose of this act is to train as many production workers as possible. In the early stage of Korea's industrialization, Korea suffered from a severe lack of skilled workers as other developing countries. This was clearly expressed in the purpose of the act, "... thus fostering skilled workers necessary for the manufacturing and other industries" (Article 1 of the VTA). Based on this act, many public training facilities were established. The government of Korea provided enterprises with subsidies to encourage voluntary in-plant training.

However, due to limited public subsidies, employers were reluctant to provide training opportunities for their employees. To overcome this market failure, the Korean government introduced obligatory in-plant vocational training. However, the skilled worker shortage worsened due to Korea's fast economic industrialization in the 1970s. Furthermore, many skilled Korean workers migrated to the Middle East to meet the increased demand for labor, mostly due to the construction boom there. In 1976, the Korean government enacted the Basic Vocational Training Act, which ordered employers to implement vocational training for their employees. If an employer failed to do so, he would be sent to prison (in the earlier stage) or imposed a fee (in the later stage). This is now known as a training levy. A training fund was established from those levies collected from businesses, and it was mainly distributed to promote vocational training in the nationwide public training centers. This enormous supply of skilled workforce was clearly one of the backbones of the "Korean Miracle."

The theoretical basis for introducing Korea's obligatory training system is the well-known argument of market failure in the training markets. Public economics shows that the government could intervene in the free market when there exists a market failure. In this case, it was a lower supply of training than the economy required. When workers moved between jobs freely, the employers often could not harvest their investments in human resources development (HRD). Therefore, the enterprises had incentive to invest less than what was socially required in developing human resources. The employers just wanted to "buy" skilled workers in the market rather than "train" their workers. A balanced amount of training could be supplied to the labor markets by government interventions such as mandatory training, training tax, or training levy.

During the 1980s and 1990s, the Korean economy changed from a labor-intensive production system to a technology-based production system. The industrial demand for a simple workforce decreased, while there were increasing demands for upgrading skills and for lifelong training for the unemployed. Since the

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Korean industries matured and most workers were educated in the upper secondary schools, it became rather difficult to find candidates for mandatory training. Facing such changes in training needs, the Korean government enacted the Workers Vocational Training Promotion Act in 1994 (later changed to the Workers Vocational Skills Development Act in 2004), replacing the former Basic Vocational Training Act. This act extended the scope and coverage of the national skills training, and many training market regulations were abolished. Profit corporations, associations of enterprises, and individuals were allowed to provide training services only if the standards and requirements were satisfied. Those innovative policies were mainly intended to promote private vocational training. The former Vocational Training Fund was integrated into the Vocational Skills Development Fund (Uh, 2015a). The next Table 1 shows that in-plant training increased enormously after this change in Korea's training system.

Table 1: Number of Vocational Trainees (persons, %)

	1982–1986	1987–1991	1992–1996
Total	273,151 (100.0)	313,275 (100.0)	1,006,822 (100.0)
Public training	121,044 (44.3)	113,802 (36.3)	151,160 (15.0)
In-plant training	114,773 (42.0)	116,389 (37.0)	708,354 (70.3)
Others	37,334 (13.7)	83,034 (26.5)	148,309 (14.7)

Source: Ministry of Labor of Korea, Yearbook on Vocational Training in Korea.

In 2004, larger parts of the Workers Vocational Training Promotion Act were amended, and the act was renamed as the Workers Vocational Skills Development Act. This revision's main purpose was to again extend the scope of the national skills training to the lifelong development of human resources. This law emphasized the promotion of training for small and medium-size enterprises (SMEs), lifelong vocational skills development, and training for various vulnerable groups such as youth and women. Korea's dual labor market situation led to fewer opportunities and increasing risks for the disadvantaged, e.g., the unemployed, temporary workers, aged, and SME workers. For social cohesion, vocational training could play a greater role by giving more opportunities to the disadvantaged. In this sense, the skill training is clearly an important social safety net. We expect that the unemployed and the socially disadvantaged could be activated more easily and their employability would be enhanced with the help of this training act.

Very recently, Korea tried innovating and enhancing the national skills training system in the direction of the competency-based training corresponding to global standards. Since the Korean economy has entered into the knowledge-based stage, the existing training standards became obsolete. Modernized industries want a higher level of skills to meet the increasing demand for knowledge workers. In addition, there has been much criticism that the existing skills training and qualification often fail to satisfy the industrial demand. This motivates the Korean government to develop new standards of vocational training known as the National Competency Standards, which will be discussed in detail later.

After the global economic crisis in 2008, the Korea has suffered from higher youth unemployment and wider mismatching between education and industrial demand for labor. And also, the training gap between large enterprises and SMEs has become widened. In order to tackle with these problems, the Korean government has tried to innovate the vocational education and training by benchmarking the German model of dual training since 2012. This report introduces recent innovations in the skills training: 1) Training Consortium, 2) Korean model of dual training, and 3) recent development of NCS and NQF.

Recent Innovation of TVET in Korea

Training Consortium

The first innovation is now well known as the Training Consortium among companies sharing the chain of supplies. Here, it is enough to introduce a success story summarized as below by OECD, The G20 Skills Strategy in 2015.

The basic idea of the Consortium for SME training is simply to combine the stakeholders' interests participating in the consortium. Large enterprises want good quality product from the SMEs in the supply chain. For this, high quality workers should work in those SMEs, which could be only activated by high quality training. However, the SMEs could not offer the skills training by themselves, simply because they lack ability of training, money and professional. Therefore, two resources should be provided to the Consortium. The Korean government provides the financial support, while many universities and in-service training institutions of large companies provide the training capacity such as instructors, training modules, facilities and equipments and even the learning management system. As of 2016, there are 215 training consortiums to reduce the training gap among enterprises, 155 led by large companies such as SamSung, Hyundai, SK and LG, 33 led by universities, and 27 led by public training institutions such as Polytech.

Box 5. Overcoming barriers to training in SMEs

Encouraging training in SMEs: Korea

In **Korea**, a private or public training provider can receive public subsidies if it forms a partnership or consortium with SMEs in which the providers' facilities or equipment are used to develop skills. Subsidies can cover the costs of the facilities, equipment and salaries for training personnel. Government spending on this programme has steadily increased since 2003. In 2009, 78.3 billion won (about USD 69 million) was spent under this programme to train 231 000 employees at 111 000 SMEs.

Separately, SMEs can receive public subsidies to cover part of the costs associated with organising learning in the workplace. Specific activities that are eligible for the funding include study-group activities, creation of study spaces, high-quality learning programmes, development of learning networks, and on-the-job training programmes. This initiative started in 2006. In 2009, subsidies were applied to organised learning activities at 307 SMEs. In other cases, when SME employees participate in training offered by private providers, and the Ministry of Employment and Labour deems the activities to be core or central to the tasks of SMEs, then training costs and part of the labour costs may be subsidised.

The government provides enhanced employment and training services to help SME employees and non-regular workers to develop job skills on their own and move on to better jobs. Under "JUMP" (Job Upgrading and Maturing Programme), SME employees and non-regular workers may take a module-based training course on weekends or weeknights. In 2009 alone, 13.8 billion won (about USD 12.1 million) was spent on this programme, benefiting more than 52 000 people.

Korean Model of Dual training

Recently, the youth unemployment problem has become more severe, one of which reasons is known as the widening mismatch between industry and school education. Many youth with higher education want to find jobs in large enterprises and public sectors. Though many jobs in the SMEs are remaining unfilled, it becomes more difficult to search qualified young workers in the labor markets. For a solution, the Korean government has introduced so-called the Korean model of dual training. If one is asked to name a country that is known for effective apprenticeship schemes, many would choose Germany. The success of the training system is broadly believed to be a pillar of Germany's industrial strength and the secret of the low unemployment rate in the country. Obviously, one cannot "transplant" the German model of apprenticeship onto another soil because of the differences in the institutional setting around skills development (e.g. the legal framework, training institutions, and role of occupational qualifications in the labor market).

About 20 years ago, Korea had experienced a miss-transplantation of the German dual training model. At that time, many third year students in the high schools were sent to workplace of the SMEs. However, they only worked in the workplace with little learning opportunity, which was blamed even as "slave labor" and stopped soon after. There was little support or regulation from the government and, therefore, companies treated those students just as workers. Since 2012, the Korean government has again introduced the apprenticeship for the students who want to get a job after the apprenticeship program. To avoid the failure in the past, first, the Korean government has provided enormous financial supports, including program development, operation, salaries for trainers and staff, training materials, allowance for apprentice, and even boarding expense. As of 2016, the total financial support per apprentice is about 18,000USD and the source of money is the training levy under the Employment Insurance System.

Secondly and more importantly, the Korean government made a regulation saying that the companies, which want to participate in the apprenticeship program, must sign a labor contract with the apprentice. The enterprises must obey labor standards pay wages above the minimum wage. Furthermore, they must provide training to the apprentice, say, 70% S-OJT(structured on the job training) and 30% off-JT(classroom job training).

In this way, the apprentice now could avoid exploitation and receive the proper training tailored individually. Until now, more than 10,000 enterprises have participated in this program and more than 70,000 students have opportunities to be trained in workplace under protection of the labor laws. More than 90% of trainees have been employed to the company which has offered the apprenticeship program to them. The next table summarizes the recent development of the Korean model of dual training. There were found enormous social benefits of apprenticeships by main stakeholder such as the government, company and apprentice. At the national level, improvement of youth employment, reducing the age of entry into first job, reducing the period of seeking employment, alleviation of mismatch between supply and demand are positively expected. At the company level, the average rating for reducing re-education cost and probationary period of new workers, improvement of work performance of apprentice and improvement of adaptability of apprentice in the work field are anticipated. Finally, at the individual level, enhancement of job performance and adaptability of skills are highly expected.

Some worlds could be added to encourage companies' participation. Appropriate amount of government incentives for training companies may be the most powerful strategy in the short term. It is also necessary to strengthen the role of industrial representatives (Industry Skills Council in Korea) who could enhance administrative support and matching for companies as well as apprentices. And the flexibility of program development and NCS-based qualification are strongly required.

Table 2: A Summary of the Korean Model of Dual training

Operator	Individual company or Training center (not school)
Target group	People between 15 and 29 years old who want to get a job
Status of trainee	Worker under the Labor Law: Labor contract
Program	<ul style="list-style-type: none">- At least 6 months up to 4 years- Off-JT + S-OJT (Structured On the Job Training)- Each company makes its own program based on NCS
Trainer	One with advanced competencies and qualifications
Evaluation & Certification	<ul style="list-style-type: none">- Project-based evaluation- Government certifies trainees' competency based on the NCS
Employment	More than 90% of trainees have been employed to the company

Recent Innovation in Skills Qualification (NCS and NQF)

The NCS are defined as a set of competencies such as the common knowledge, skills, and attitude required to effectively performing a job or task in each industry, standardized by public authority such as the government or the Sector Council. The NCS are the basis of skills qualification, vocational education and training, and career management. Korea's NCS model was launched in 2002 by benchmarking the Australian training packages and German skills qualifications. The first NCS were developed in 2003 in five occupational areas including welding, automobile maintenance, and hair beauty. Since then, 897 kinds of NCS have been developed by the HRD Korea together with the Industry Skills Councils (ISCs). The government of Korea has allocated resources for developing new occupational areas and fixing the obsolete versions of the NCS. There are 24 major industrial sectors in the NCS classification, for which 17 ISCs have been established as of 2016.

Each set of the NCS consists of eight to 12 competency units that describe competencies such as knowledge, skills, and attitude in detail. Since the performance criteria and assessment guide are set for each competency unit, the competency unit becomes the basis of the skills qualification and testing. Each set of the NCS and competency units are identified with codes. In order to standardize the size of the competency unit, the learning hours for each competency unit is restricted to 15 to 50 hours including time or practice. Since one credit is defined as about 15 hours of learning in Korea's vocational education system, learning for each competency unit is designed to have a maximum of three credits in vocational education and training. This constraint in competency unit size is very useful in developing the related skills qualification.

Stakeholders from industries and vocational education and training institutions were welcomed and even encouraged to participate in each process of NCS development, for example, fixing the scope of the occupational areas, interviewing the high performers in each occupation, and determining the skill types and their levels. The Korean government provided budgets for developing the NCS and encouraged

stakeholders to participate in this national project. Because all kinds of NCS are now public goods, they are open to the public through www.ncs.org.kr serviced by the HRD Korea.

Korea has been operating the skills qualification system since 1973. The Korean government still operates the technical skills qualification system under the National Technical Qualification Law. Therefore, when the NCS are applied to the skills qualification in Korea, many things in the technical skills qualification system (for example, competencies in the existing skills certification, testing methodology, and roles of the skills assessors) should be changed, which sounds revolutionary in the skills world. The government of Korea launched this enormous project in 2014. Along with developing the NCS in most industrial sectors, the government of Korea asked the ISCs and/or the related industrial representatives (in cases where an ISC was not yet established) to develop new skills qualification based on the NCS. The developers were given budgets and expertise to develop the new qualifications.

With the help of workplace experts and professionals in the skills field, the HRD Korea developed a new model of skills qualification as follows. First, eight skill levels were identified from benchmarking the global standards on skill level classifications, say, the European Qualification Framework (EQF). A conceptual framework of the eight skill levels is well known as the level descriptors by competency domain. Among the eight skill levels in Korea, level 1 to level 5 skills were major targets for skills qualification development. There is no urgent need to develop skill levels above 5, and, furthermore, those were already well defined as professional engineers or masters in the Korean skills qualification system or masters or doctors in the Korean academic system.

In order to keep the same size for each skill qualification, the notional learning hours to acquire the competencies in each skill qualification are given again as a criterion. Each skill qualification should consist of learning hours for essential competencies with corresponding levels more than 50% of total learning hours. The Table 3 shows skills qualification design by skill level and learning hours. For example, if a trainee wants to attain a level 2 skill certification (say, welding L2), he or she should prove that he or she has acquired competencies in that skill qualification comparable to 600 learning hours by way of vocational education and training, work experience, or self-learning. As of 2016, more than 600 types of new skills qualification have been developed by the ISC and related industrial representatives. In near future, those new skills qualification would replace the existing national technical qualification, which would be the basis of vocational education and training as well as the recruitment criteria.

Table 3: Tentative Framework of Skills Qualification by Level

Level	Total learning hours	Learning hours for essential competencies	Learning hours for selective competencies
1	200	100	100+
2	600	300–400	300+
3	600	300–400	300+
4	800	400–500	400+
5	800	400–500	400+

Since the skills qualification system is fully developed, it is now necessary to match the existing skills certification to this new system, which is one part of the National Qualification Framework (NQF) in Korea. Another part is to match the academic diplomas with the new skills qualification system. The Table 4 shows one way to match or recognize the learning outcomes from different ways of acquiring competencies. For example, if a worker has a “craftsman or skilled worker” certification under the National Technical

Qualification Law, he or she can be automatically certified as a holder of the level 2 skill certification under the new NQF. In addition, if a student completes the courses required by the new skills qualification in a vocational high school, he or she can be recognized as a holder of the level 2 skill certification under the new NQF. In this way, the National Qualification Framework provides systematic equivalence among various ways of acquiring competencies. In short, the NQF is the reservoir for alternatives of forming competencies in the skills world.

Table 4: Tentative National Qualification Framework in Korea

Skill level in new qualification system	Existing technical skills qualification	Diploma in vocational education
1	Apprentice	-
2	Craftsman or skilled worker	High school
3	Industrial Technician I	Two-year college
4	Industrial Technician II	Three-year college
5	Engineer	Four-year university