



Implementation of the Sustainable Development Goal 4 in Korea



United Nations
Educational, Scientific and
Cultural Organization



Korean
National Commission
for UNESCO



Implementation of the Sustainable Development Goal 4 in Korea

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I

Introduction

Discussions have been underway since 2015 about achieving Sustainable Development Goals (SDGs) in Korea and abroad. The United Nations adopted SDGs in September 2015 not only to succeed the Millennium Development Goals (MDGs) but to go beyond the weaknesses of them, and thereafter bolstered global cooperation to make sure that SDGs are met as pledged. While MDGs are geared towards alleviating poverty and supporting social development of developing countries, SDGs are intended for both developing and developed countries to promote sustainability in all aspects of life. With the advance of globalization, there is a consensus that sustainability is not something a handful of countries can deal with, but the entire international community should work on together.

As far as education is concerned, there is a stand-alone goal “ensure inclusive and equitable quality education and promote lifelong learning opportunity for all” along with 10 targets to achieve it. In this regard, cooperative efforts continue to focus on developing and analyzing indicators to monitor the progress of each target. The implementation of SDG4 has been led by UNESCO Headquarters and Regional Offices and UIS on the global level, and each government has attempted to refine the goal, targets and indicators. Regular and irregular international conferences and forums have been held to share the progress made so far and critical issues at hand. Korea, for its own part, has contributed to shaping the global discourse and action by holding the World Education Forum 2015 while disseminating the socioeconomic value of SDGs at home. Closely associated with the Moon administration’s vision of inclusive society, SDGs are well placed to be put into effect.

This report takes stock of progress made in Korea towards achieving SDGs and sheds light on major policy implications for its further implementation. The first chapter will touch on the background and objectives, the second on the monitoring of SDG4-Education 2030 at the global level, the third on the implementation structure of SDG4-Education 2030 in Korea, the fourth on the progress made toward meeting SDG4, and the fifth on the conclusion.



II

Implementation of the SDGs in Korea: Establishing the K-SDGs

In 2015, the Incheon Declaration was adopted at the World Education Forum held in Incheon, Korea. In the same year, the United Nations (UN) declared the Sustainable Development Goals (SDGs), a set of goals that all countries in the world are encouraged to achieve by 2030. Since then, Korea has been striving to implement the SDGs in its own context.

When the Moon administration came to power in August 2017, it incorporated “restructuring the governance of sustainable development” in the new national agenda, whose implementation plan was later drawn up at the Ministerial Meeting for Social Affairs in February 2018.

The K-SDGs were established by the Ministry of Environment and the National Commission on Sustainable Development following the launch of the UN’s SDGs. Essentially, the K-SDGs aim to align national policy objectives with the well-being of Korean citizens by developing and implementing contextualized and localized SDGs (Ministry of Environment, 2018a). Encompassing all 17 SDGs set by the UN, the K-SDGs consist of 169 contextualized and localized targets carefully selected with due consideration of its representativeness, urgency and necessity based on specific circumstances of Korea (Ministry of Environment, 2018a).

While the Korean government tends to adopt a “top-down” process in establishing policies, in which the government puts forward policies first and subsequently gathers opinions of experts and citizens on these policies, it opted for a “bottom-up” approach in creating the K-SDGs (Ministry of Environment, 2018b). The K-SDGs were built upon a preliminary work drafted by the K-SDGs Working Party composed of civic groups, industries, government ministries, national research institutes, and college professors. This

preliminary draft then went through reviews by the K-MGoS (Korean-Major Groups and other Stakeholders), and internal task forces and director generals of relevant ministries, along with public debates. To be specific, the K-SDGs Working Party, which is comprised of 430 people from civilian industries, government, and academia, held 38 meetings between May and October 2018 to develop the preliminary draft of the K-SDGs. Then, submissions of K-MGoS' opinion document (June and November), a debate tour across the country (June), and public debates (June and October) were carried out to form a consensus on the developed K-SDGs (Relevant Ministries, 2018). The K-SDGs were finalized on December 24, 2018, through an approval of the State Council after a series of meetings of the National Commission on Sustainable Development (November) and the Presidential Committee on Green Growth (December). The final K-SDGs include 5 strategies, 17 goals, 122 targets, and 214 indicators with a vision statement of "An Inclusive, Sustainable Country for All" (Ministry of Environment, 2018a). They are different from the UN's SDGs, which consist of 17 goals, 169 targets, and 232 indicators, because the K-SDGs take account of Korea's particular contexts. For example, targets such as 1.1 (eradicate extreme poverty), 2.2 (end all forms of malnutrition), and 5.3 (eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation) were intentionally omitted since they have little relevance to or were unlikely to add value to the current Korean situation. On the other hand, targets such as 3.1 (manage the risk factors of chronic diseases and expand health social security), 3.8 (overcome the low birthrate and prepare for an aging population), 6.5 (control water quality), and 12.9 (expand the use of recycled plastic and develop eco-friendly materials) pertaining to pressing issues in Korea were newly introduced.

The K-SDGs were featured in the 3rd Sustainable Development Goals Plan Changed Proposal(2016-2035), a legally supported government plan, and also will be included in the subsequent 4th Plan (2021-2040) after being reviewed and updated in the next two years.

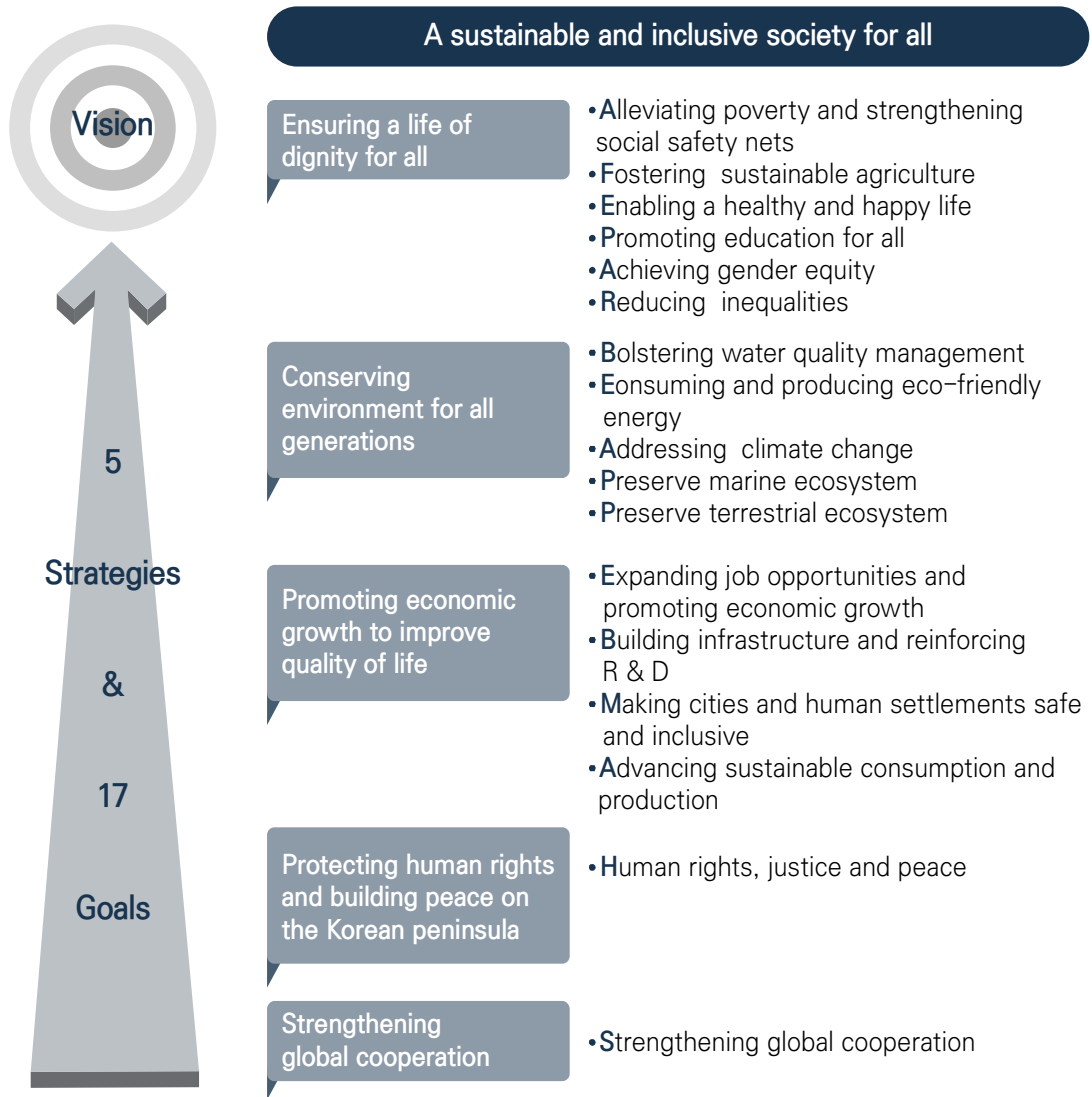


Figure 1 | K-SDGs Vision Structure

* Source: Relevant Ministries(2018:4).



III

Implementation Structure of the SDG4–Education 2030 in Korea

In implementing the SDG4-Education 2030 in Korea, the Ministry of Education (MOE) and the Korean National Commission for UNESCO (KNCU) serve as national coordinator and focal point, respectively. With these two organizations being the central members, the Korean government formed a commission called *the Korean SDG4-Education 2030 Network* in April 2017. The UN SDG4-Education 2030 emphasizes the voluntary accountability of each country in carrying out the SDG4 targets. It also encourages countries to report and implement these goals according to each country's specific situations and contexts. The Korean SDG4-Education 2030 Network aims to facilitate and monitor the carrying out of the SDG4-Education 2030 in an effective manner.

Eleven organizations (MOE, KNCU, Korean Educational Development Institute, the National Institute for Lifelong Education, Asia-Pacific Centre of Education for International Understanding under the Auspices of UNESCO, Korea Institute for Curriculum and Evaluation, Korea Education and Research Information Service, Korea Institute of Child Care and Education, Korea Council for University Education, Korea Research Institute for Vocational Education and Training, and Korean Women's Development Institute) constitute the Korean SDG4-Education 2030 Network. Although not a member of the network, the Statistics Korea also cooperates with the network. These institutions signed a MOU in 2018 in order to maintain a close and cooperative relationship with each other.

The Korean SDG4-Education 2030 Network is important especially because, in Korea, different groups of policy, research and data organizations are involved in achieving different targets, rather than all targets being addressed by one overarching organization. Therefore, for the successful and thorough implementation and monitoring of the overall

SDG4-Education 2030, it is essential for relevant organizations to cooperate and share information, which is the main purpose of the Korean SDG4-Education 2030 Network.

Table 1 | Korean SDG4–Education 2030 Network Member Organizations

Roles	SDG4 Targets	Organizations (Custodian Agencies)
Secretariat General		Ministry of Education International Education Cooperation Bureau
Focal Point		Korean National Commission for UNESCO (KNCU)
Sub-level	Primary and Secondary Education (4.1)	Korea Institute for Curriculum and Evaluation (KICE)
	Early Childhood (4.2)	Korea Institute of Child Care and Education (KICCE)
	Tertiary Education (4.3)	Korea Council for University Education (KCUE)
	TVET (4.3, 4.4)	Korea Research Institute for Vocational Education & Training (KRIVET)
	ICT (4.4)	Korea Education and Research Information Service (KERIS)
	Equity (4.5)	Korean Women’s Development Institute (KWDI)
	Literacy and Numeracy (4.6)	National Institute for Lifelong Education (NILE)
	Sustainable Development and Global Citizenship (4.7)	Korean National Commission for UNESCO (KNCU) Asia-Pacific Centre of Education for International Understanding under the Auspices of UNESCO (APCEIU)
	Monitoring & Report (Overall)	Korean Educational Development Institute (KEDI)
	Education Facilities and Learning Environment (4.a)	
	Scholarships (4b)	
Teachers (4c)		

Since its establishment in 2017, the Korean SDG4-Education 2030 Network has made strenuous efforts to carry out the SDG4 in Korea. One of the most prominent efforts is the operation of the *K-SDGs Working Party*. All member organizations of the Korean SDG4-Education 2030 Network participate in the Working Party and KEDI serves as the leading organization. Aside from the Network’s member organizations, 20 individuals from civic groups or academia are also members of the Working Party. The Working Party wrote the preliminary draft of the K-SDG4, which later became the basis of the final K-SDG4 including national targets and indicators. Specifically, for each target (4.1-4.7), working groups were organized within the Working Party and each working group formulated plans for national implementation and developed national indicators of its respective target.

Also, the Korean SDG4-Education 2030 Network has attempted to popularize the SDG4-Education 2030 and enhance awareness of it across the country. For example, the Network regularly holds forums and conferences on the SDG4-Education 2030. The first forum was held in 2017, with the theme of “Education in Korea and the SDG4-Education 2030.” The second forum, “High Quality Higher Education and Vocational Education and Training for Sustainable Development,” took place in 2018. The third forum is scheduled to be held this year and will be centered around “Inclusiveness and Education.” In addition, individual working groups have also held forums and conferences incorporating various themes in order to expand discussion of the SDG4-Education 2030 within each group’s relevant academic field. Furthermore, the Korean SDG4-Education 2030 Network produced and circulated eleven sets of *card news* to increase people’s awareness of the SDG4-Education 2030.

Table 2 | Major Forums of the Korean SDG4-Education 2030 Network

Targets	Topics of Forums	Date
Overall	The 1 st SDG4-Education 2030 Forum: Education in Korea and the SDG4-Education 2030	14 November 2017
Overall	The 2 nd SDG4-Education 2030 Forum: High Quality Higher Education and Vocational Education and Training for Sustainable Development	9 November 2018
Overall	The 1 st SDG4-Education 2030 Forum: Inclusiveness and Education	November 2019 (TBA)
Primary and Secondary Education (4.1)	Status of and Tasks for Implementation of SDG4.1 in Korea	15 November 2018
Early Childhood (4.2)	SDG4.2 High Quality Early Child Education and Care	30 November 2018
	SDG4.2 Joint Conference: High Quality Early Child Education and Care for All Children	10 May 2019
Technical, Vocational, Tertiary and Adult Education (4.3)	National Assembly Seminar EduNext 14: Innovations in Higher Education in Future Society for Sustainable Development	27 August 2018
Equity (4.5)	SDG4.5 Equity in Education	17 September 2018
Literacy and Numeracy (4.6)	SDG4.6 Network Forum	13 November 2018
Sustainable Development and Global Citizenship (4.7)	2018 UNESCO SDGs Policy Forum	7 December 2018
Monitoring & Report	SDG4 Monitoring and Implementation Forum	20 November 2018



IV

K-SDGs' Targets and Indicators of Education: K-SDG4

The UN classified the SDG4 (a stand-alone goal on education) indicators into four levels, global, thematic, regional and national, to properly monitor the implementation of targets. The present UN SDG4 includes 11 global indicators and 43 thematic indicators (including the 11 global indicators). Also, the UN advises that individual countries develop their own national targets and indicators and monitor them based on the specific situations and contexts of each country.

The K-SDG4 consists of 10 targets and 27 indicators. The reason the K-SDG4 has fewer indicators than the UN SDG4 is because the K-SDG4 indicators were developed based on the characteristics and context of education in Korea. Among the 27 indicators, 17 correspond to those in the UN SDG4, while the other 10 are newly introduced. Some indicators from the UN SDG4 were dropped, even though they may be important globally because they were considered unsuitable for Korean settings. For instance, the UN SDG4 indicator 4.a (e.g. the proportion of schools with access to electricity, the internet, computers, and basic drinking water) was deleted because it is hardly relevant to Korea, where such basic educational infrastructure and facilities are already mandatory by law for all schools or practically all schools are already equipped with them. Also, some indicators on which Korea scores the highest—such as the advancement rate, completion rate, enrolment rate of children over-age for grade, and duration of mandatory education in SDG4 indicator 4.1—were also dropped. Even so, these indicators are still under monitoring within the K-SDG4 scheme, because of their global importance. SDG4 4.4 indicator on ICT skills was also excluded due to measurement issues.

Meanwhile, some indicators of the K-SDG4 were newly added or modified from the UN SDG4 to reflect Korea's specific situation. For example, SDG4 targets 4.a, 4.b, 4.c,

and subsequent indicators, concerning the methods of and resources for education, were modified in the K-SDG4 with respect to the particular context of Korea. Specifically, SDG targets 4.a, 4.b, and 4.c correspond to K-SDG targets 4.8 (an inclusive and safe learning environment), 4.9 (secure educational finance), and 4.10 (secure qualified teachers), respectively. Also, while the enrolment rate and drop-out rate were removed from all other K-SDG targets, they were included in K-SDG target 4.5, which disaggregates all education indicators by gender, region, wealth, disability, and immigrant status. This is because these two indicators can be meaningful when they are examined after disaggregation according to these aforementioned background characteristics.

The table below specifies K-SDG4 indicators modified from SDG4. For detail, see K-SDG4 targets and indicators in Annex 1.

Table 3 | K-SDG4 indicators modified from SDG4

Targets	Indicators	Notes
4.2. Early childhood	Utilization rates of public kindergartens and nurseries	New
4.3. Vocational education and tertiary education	Completion rates in tertiary education	Replaced
	Percentage of private expenditure on tertiary education	Replaced
4.5. Equity	Enrollment rates	Replaced
	Drop-out rates	*(similar to 4.1)
4.7. Sustainable development and global citizenship	Number of accumulated teachers who received capacity-building trainings on GCED	Replaced
4.a. Learning environment	Ratio of special classes in general schools	Goal modified
	Earthquake retrofitting rates of schools	
	Proportion of Wee classes	
4.b. Finance	Percentage of public expenditure on tertiary education relative to GDP	Goal modified
4.c Teachers	Ratio of bachelor's degree or higher among nursery school teachers	Goal modified
	Number of special students per special education teacher	
	Proportion of regular teachers in public kindergartens (Number of kindergarten teachers per child)	
	Placement rates of elementary and middle school counselors	



Implementation Progress of SDG4 in Korea

1 4.1. Primary and Secondary Education

SDG4.1 goal

By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Theme	SDG4.2 indicators	K-SDGs
Learning	Proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	K-SDGs key indicator
	Administration of a nationally-representative learning assessment (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education	K-SDGs key indicator
Completion	Gross intake ratio to the last grade (primary education, lower secondary education)	
	Completion rate (primary education, lower secondary education, upper secondary education)	
Participation	Out-of-school rate (primary education, lower secondary education, upper secondary education)	
	Percentage of children over-age for grade (primary education, lower secondary education)	
Provision	Number of years of (a) free and (b) compulsory primary and secondary education guaranteed in legal frameworks	

※ Global indicator highlighted in bold

Implementation

Korea prides itself on outstanding learning outcomes compared to other countries. International comparative academic assessments such as PISA and TIMSS have shown a high level of achievement. Successful education completion was reflected in high enrolment rates (97.4% for primary school, 97.9% for middle school, and 92.4% for high school), in high advancement rates (100.0% from primary school to middle school, and 99.7% from middle school to high school), and in low dropout rates (0.6% for primary school, 0.7% for middle school, and 1.5% for high school) (Ministry of Education, Korean Educational Development Institute, 2018a). Korea provides free and compulsory education at the primary and lower secondary levels.

Based on Korea's unique characteristics, K-SDGs have encouraged comprehensive student support systems to ensure the attainment of basic academic skills, with a strong focus on providing opportunities for all students to achieve more effective learning outcomes, while strengthening basic assessment and corrective measures to systematically support underachieving students. Two monitoring indicators were adopted to evaluate progress on these fronts: the "proportion of students achieving at least a minimum academic proficiency for international assessments;" and the "administration of a nationally-representative learning assessment." This continuous participation in international assessments alongside the monitoring of students' academic performance and affective characteristics through national learning assessments is expected to improve the quality and performance of Korean education as reflected in global education trends.

In addition, in line with most OECD countries, which offer free education at the upper secondary level, discussions are underway in Korea regarding the possibility of free and compulsory education at the upper secondary level.

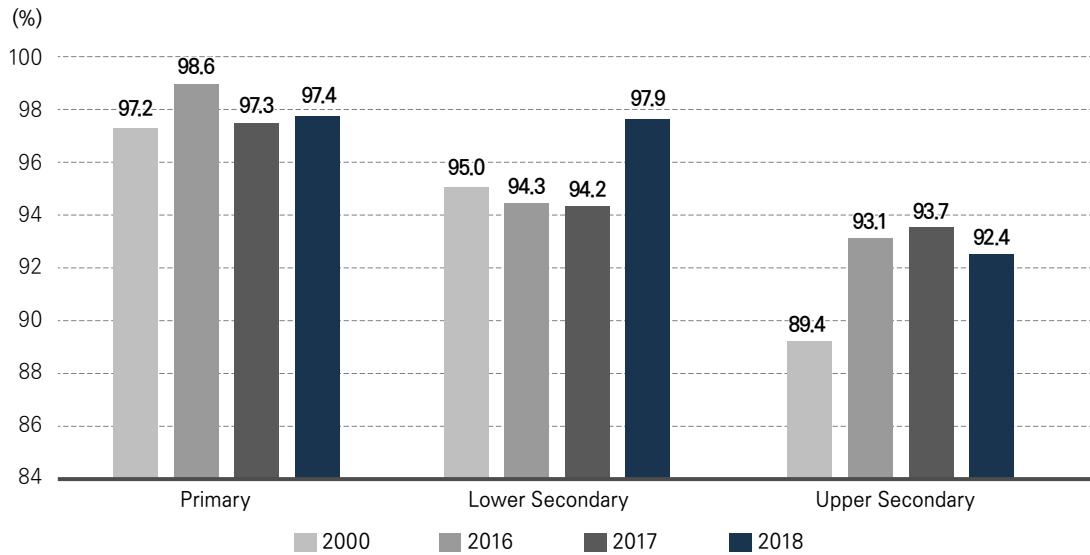


Figure 2 | Enrolment Rates (2000, 2016, 2017, 2018)

※ Source: MOE·KEDI (2018a:11)

Implications

Korean students show a relatively high level of academic performance on an international scale. However, their scores fell in the latest international tests, indicating a higher proportion of low-performing students. Korean students' affective domain, such as the attitudes they hold toward science, is still notably low compared to their academic achievement. Therefore, consistent monitoring and efforts to improve academic performance are essential.

While monitoring of the overall educational system is well established, there is a lack of information on vulnerable social groups, such as students from multicultural families, low income backgrounds, or rural areas, as well as students with disabilities. Expanding monitoring into these areas is necessary for the assurance of educational opportunities, completion of education, assessment of learning performance, and effective policies to improve students' learning outcomes.

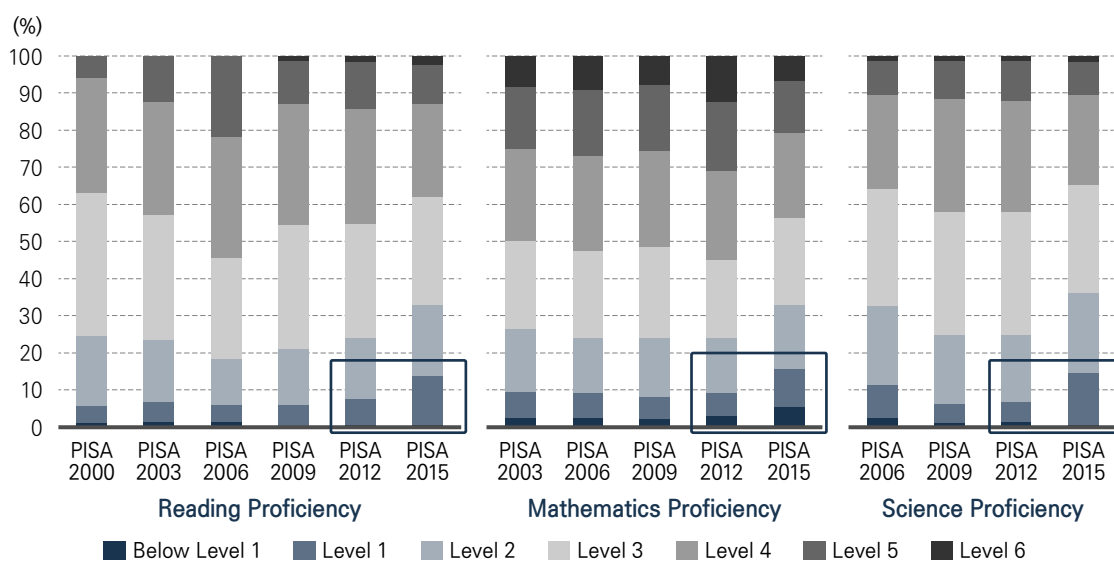


Figure 3 Percentage of Students at Each Proficiency Level in Reading, Mathematics and Science

Source: MOE (2016:6)

2 4.2. Early Childhood Education and Care

SDG4.2 goal

By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

Theme	SDG4.2 indicators	K-SDGs
Readiness for primary school	Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	K-SDGs key indicator
Participation	Participation rate in organized learning (one year before the official primary entry age), by sex	K-SDGs key indicator
Readiness for primary school	Percentage of children under 5 years experiencing positive and stimulating home learning environments	K-SDGs key indicator
Participation	Gross early childhood education enrolment ratio in (a) pre-primary education and (b) early childhood educational development	-
Provision	Number of years of (a) free and (b) compulsory pre-primary education guaranteed in legal frameworks	-
Participation	Share of children enrolled in public ECEC institutions (%)	additional indicator from K-SDGs

Global indicators highlighted in bold.

Implementation

Korea achieved free early childhood education and care for all 5-year-olds in 2012 by introducing the Nuri initiative, which was subsequently expanded to 3- and 4-year-olds in 2013. The average annual enrolment rate in kindergartens and childcare centers has exceeded 90% since 2013 (92.5% for 3-year-olds, 93.7% for 4-year-olds, and 96.6% for 5-year-olds; Korean Basic Education Statistics 2018 and Childcare Statistics 2018).

In K-SDGs, the “percentage of children experiencing positive and stimulating home learning environments” has been adopted as a key indicator among the global and thematic indicators of SDG 4.2. In addition, the “gross early childhood education enrolment ratio in pre-primary education and early childhood educational development (%)” has been selected as a national indicator. These indicators reflect the recent policy agenda aimed at strengthening the publicness of education, and Korea's high utilization of private kindergartens and childcare centers, which places a substantial financial burden on parents. The Korean government also attempts to regulate early childhood curricula by mandating adequate hours of instruction for children to secure their healthy growth and development; this exemplifies efforts to accomplish the “physical health, learning and psychosocial well-being” of children, as highlighted in SDG 4.2.

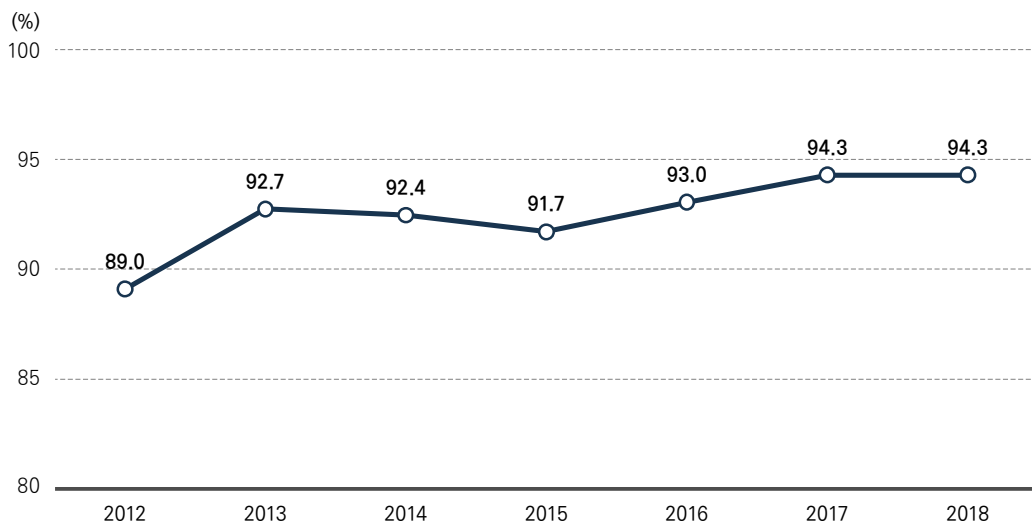


Figure 4 | Enrolment Rates in Child Care Center and Kindergarten (2012~2018)

※ Source: 1) Kindergarten: MOE (2012-2018) (reference date: April 1st)
2) Childcare Center: MOHW (2012-2018) (reference date: March 31st)

Implications

Opportunities for early childhood education in Korea have expanded rapidly in recent years, but government support is difficult to observe due to the high proportion of private kindergartens and childcare centers (up to 76%), insufficient subsidies for the Nuri curriculum that amount to only half of the standard fees for early childhood education and care, and the parents' financial burden for after-school programs and extracurricular activities.

Financial resources for the Nuri curriculum should therefore be expanded. Efforts are also required for expanding the availability of public kindergartens to alleviate the burden of educational expenses on parents, while providing children with universal high-quality education. Only 24% of kindergartens were public in 2017, and the government plans to increase that share to 44% by 2030.

Furthermore, research has shown that children spend an excessive amount of time for academic achievement (Lee, J. R. et al., 2015). It is imperative to promote children's physical health, learning and psychosocial well-being, as well as to develop methods and tools to effectively measure and monitor growth in these areas.

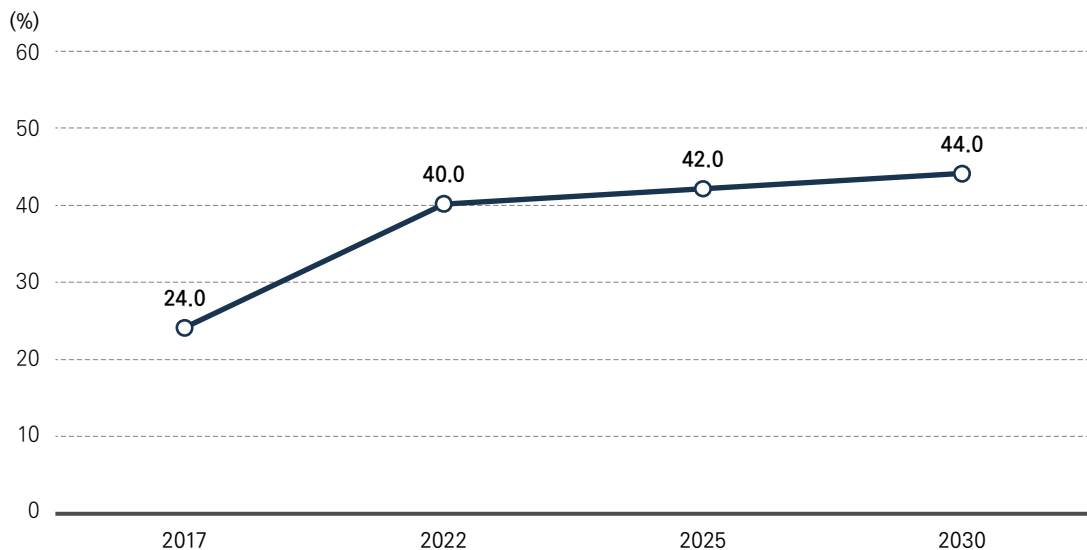


Figure 5 | Target Share of Public Kindergartens for Children Aged 3~5 Years (2022–2030)

※ Source: MOE (2018d:4)

※ Share of public kindergarten=(Children enrolled in public kindergarten/Total enrolled children)*100

3 4.3. TVET and Higher Education

SDG4.3 goal

By 2030, ensure equal access for all women and men to affordable quality technical, vocational and tertiary education, including university.

Theme	SDG4.3 indicators	K-SDGs
Participation	Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex <Participation rate of adults in non-formal higher education institutes>	K-SDGs key indicators
	Gross enrolment ratio for tertiary education by sex <Tertiary attainment rate>	K-SDGs key indicators
	Participation rate in technical-vocational programmes (15- to 24-year-olds) by sex	-
Policy	<Share of private expenditure on tertiary educational institutions>	additional indicator from K-SDGs

※ Global indicator highlighted in bold.

K-SDG indicators specified in < >.

Implementation

The net enrolment rate in tertiary education in Korea was 67.6% in 2018, indicating that attainment of tertiary education is becoming universal. Among tertiary educational institutions in 2018, 86.5% were private, and about 77.1% of all students were enrolled in private institutions (Ministry of Education, Korean Educational Development Institute, 2018d). Private institutions charge higher tuition fees than do public institutions, imposing a financial burden on Korean households. In response, the government introduced an Income Contingent Loan (ICL) system in 2010 and later a national scholarship program in 2012 to offer tertiary education to all regardless of economic circumstances. Korea's public expenditure on tertiary education was \$10,109 per student in 2015, about 64.6% of the OECD average of \$15,656. Against this backdrop, the Korean government continues to expand public financial resources to improve the quality of tertiary education.

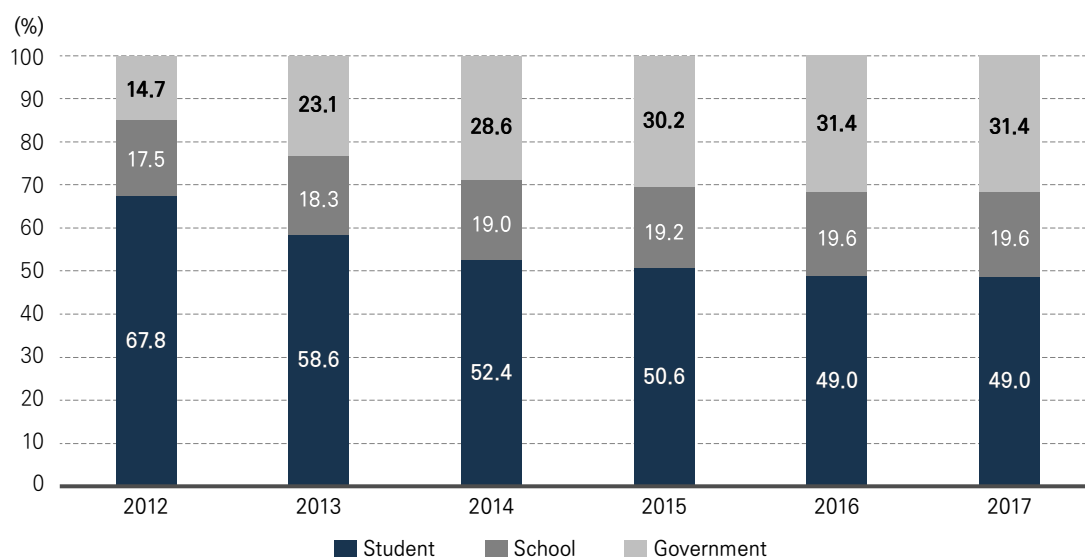


Figure 6 Relative Shares of Tuition Fees Paid by Entities

※ Source: MOE (2018e:1)

Efforts are also underway to increase adult participation in lifelong learning. The tertiary attainment rate of Korean adults aged 25-64 was 48% in 2017, which is higher than the OECD average of 38%; however, there exists a substantial gap between generations. Although Korea had the highest percentage (70%) of tertiary-educated 25-34 year-olds among OECD countries (OECD, 2018), that of 55-64 year-olds was only 18% in 2015, significantly lower than the OECD average of 26% (OECD, 2016). In addition, the participation rate of adults in lifelong learning differs by age group. In 2018, 52% of those aged 25 to 34 took part in lifelong learning, compared to 34.8% of those aged 55 to 64. To close this generation gap, the Korean government announced the 4th "Plan for the Promotion of Lifelong Education," in 2018 (Ministry of Education, 2018c). The government proposed a plan to enhance the role of universities and short-cycle colleges as lifelong education centers by "promoting adult-friendly education in tertiary educational institutions" and "nurturing junior colleges as a hub for lifelong vocational education centers" (Ministry of Education, 2018c). It also set up a plan to "strengthen civic capacity in cooperation with local universities" to enhance communities' future value through lifelong learning.

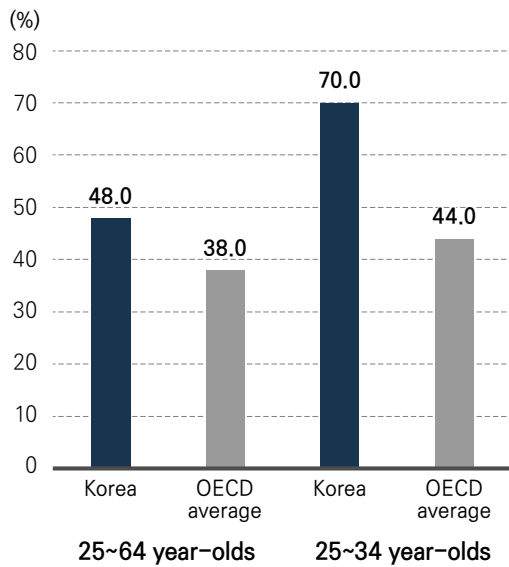


Figure 7 | Tertiary Attainment Rate of 25-64 Year-olds(2016)

※ Source: OECD.stat (2016, reference year)

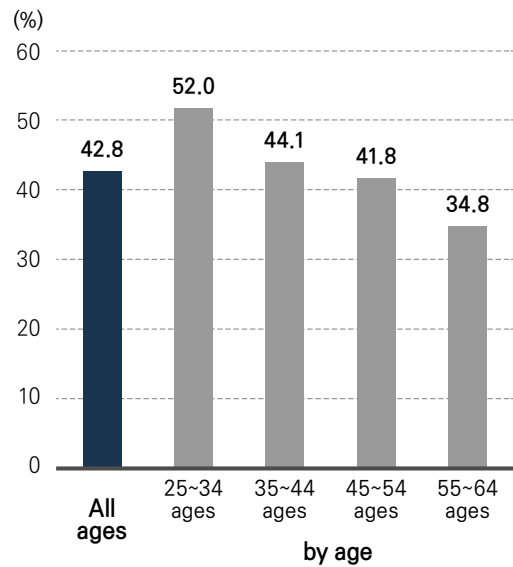


Figure 8 | Adult Participation in Lifelong Learning(2018)

※ Source: MOE·KEDI (2018c:134)

Table 4 | Tertiary Attainment Rate of 25-64 Year-olds

	25-64 year-olds		25-34 year-olds		55-64 year-olds	
	Korea	OECD average	Korea	OECD average	Korea	OECD average
2017	48.0	38.0	70.0	44.0	-	-
2016	47.0	37.0	70.0	43.0	-	-
2015	45.0	35.0	69.0	42.0	18.0	26.0
2010	40.0	30.0	65.0	37.0	13.0	22.0
2005	32.0	26.0	51.0	32.0	10.0	19.0
2000	24.0	22.0	37.0	26.0	9.0	15.0

※ Source: OECD.stat (2000-2017)

Table 5 | Adult Participation in Lifelong Learning

	2007	2010	2013	2014	2015	2016	2017	2018	
All ages	29.8	30.5	30.2	36.8	40.6	35.7	35.8	42.8	
by age	25~34 ages	36.3	37.3	35.9	43.5	48.0	46.6	41.8	52.0
	35~44 ages	29.2	33.1	31.9	38.9	42.2	39.1	39.2	44.1
	45~54 ages	26.5	25.2	26.3	33.1	37.3	31.6	34.0	41.8
	55~64 ages	23.9	21.2	25.4	29.2	32.1	26.5	28.9	34.8

※ Source: MOE·KEDI (2018b:134)

Implications

Access to good-quality tertiary education needs to be increased by diversifying points of entry and expanding the target groups in order to bridge the information gap and acquire skills needed to thrive in a changing world. Specifically, the role and function of tertiary education institutions should be expanded from focusing only on university education for school-age students to encompassing lifelong education for adult learners. Along with conventional degree programs, various non-degree courses should be offered to allow adult learners to develop the competencies required by contemporary society. Moreover, governmental policies should ease the financial burden on the socially vulnerable and underprivileged to increase their access to tertiary education.

Furthermore, in order to reduce tertiary education's reliance on private funding, the government needs to not only operate publicly funded scholarship programs but also develop policies to reduce the tuition fees of tertiary education institutions.

4 4.4. Skills for Work

SDG4.4 goal		
By 2030, substantially increase the number of youth and adults possessing relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship		
Theme	SDG4.4 indicators	K-SDGs
Skills	Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	
	Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills	
	Youth/adult educational attainment rates by age group, economic activity status, levels of education and programme orientation <Participation rate of youth and adults in lifelong education> <Participation rate of youth and adults in VET>	K-SDGs key indicator

※ Global indicator highlighted in bold.
K-SDG indicators specified in < >.

Implementation

K-SDG4.4, aligned with SDG4.4 thematic indicators, emphasizes the "participation rate of youth and adults lifelong learning" and the "participation rate of youth and adults in vocational education and training (VET)." This is to encourage and monitor participation in lifelong education and VET to ensure the technical and vocational skills of youth and adults.

Despite a steady increase in the participation rate of adults in lifelong education in Korea, the participation rate in VET is still relatively low. In 2018, Korean adults' participation rate in lifelong education was 42.8%, but the participation rate in VET was only 21.2% (Ministry of Education, Korean Educational Development Institute, 2018b). Relevant ministries—such as the Ministry of Employment and Labor, the Ministry of Education, the Ministry of Science and ICT, the Ministry of Culture, Sports and Tourism, and the Ministry of Small and Medium Enterprises (SMEs) and Startups—have implemented multiple policies on vocational skills development and training and national human resource development, targeting various types of people. However, there has been a concern that VET in Korea is not able to flexibly meet the demands of local regions and industries because it is led by the government.

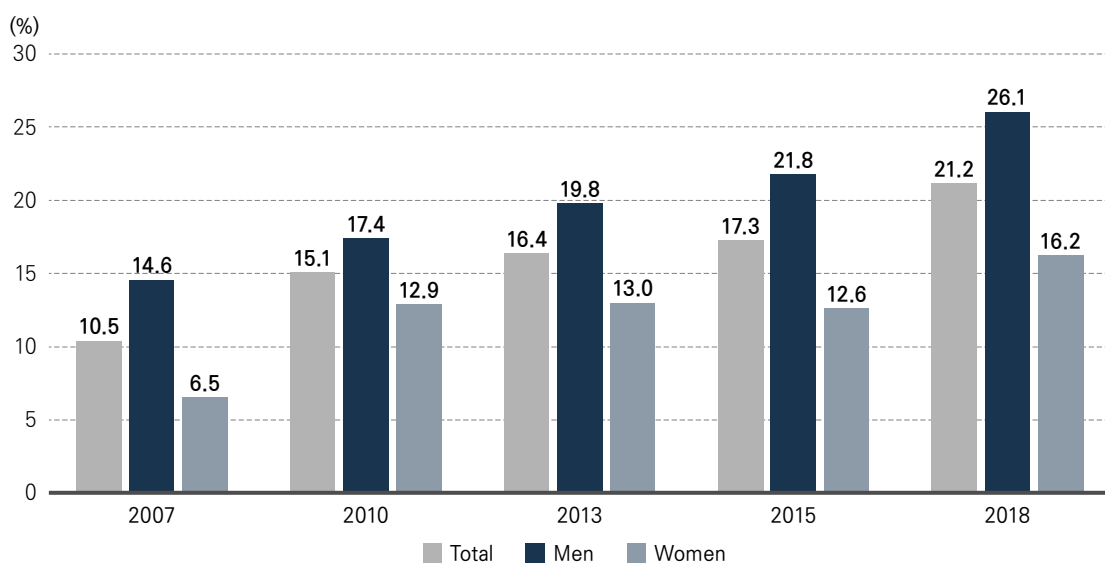


Figure 9 | Adult Participation in Job-related Lifelong Learning by Gender

※ Source: MOE·KEDI (2018b:30)

The OECD and most major developed countries emphasize ICT literacy as a core competency required in the future. Although ICT literacy is not included in the K-SDG indicators due to technical limitations, Korea is making efforts to improve students' digital literacy skills. Furthermore, as many countries have turned ICT-related curricula into compulsory courses to strengthen their software education outcomes, Korea has also made software education a national requirement since the adoption of the 2015 Revised National Curriculum.

Implications

According to the results of the 2013 ICILS (International Computer and Information Literacy Study), the computer and information literacy achievement levels of Korean students were among the highest of the 18 countries surveyed. Even so, Korean students exhibited below average scores on some ICT-use items, as well as in the area of student attitudes toward ICT, such as their self-efficacy, interest, enjoyment of computer use, and the use of ICT for school-related purposes (Kim, S. J. et al., 2014). As such, it is necessary that the government continue to promote policies to improve students' digital literacy skills.

Furthermore, it is necessary to lower access barriers by running various projects directed

at different groups in order to increase participation rates in lifelong learning and VET. In particular, it is advised to establish political and socio-cultural foundations for promoting the VET participation of traditionally neglected groups, including self-employed, special form workers, and low-income, SME workers who were previously unsubsidized. Moreover, VET for middle-aged adults should be expanded as Korea has become an aged society.

For those deprived of vocational training, preferential support for program participation or a mere encouragement approach is not sufficient. Future vocational education and training policies must integrate training, employment, and welfare.

5 4.5. Equity

SDG4.5 goal		
By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and at-risk children.		
Theme	SDG4.5 indicators	K-SDGs
Policy	Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples, and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated <Enrolment rate (by sex, ethnicity, disability status, etc)> <Dropout rate (by sex, ethnicity, disability status, etc)>	K-SDGs key indicator
	Percentage of students in primary education whose first or home language is the language of instruction	
	Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations	
	Education expenditure per student by level of education and source of funding	
	Percentage of total aid to education allocated to least developed countries	

※ Global indicator highlighted in bold.
K-SDG indicators specified in < >.

Implementation

Korea has achieved universal enrolment in primary and secondary education, and the dropout rate is very low. Moreover, there is no significant gender gap at the primary and secondary education levels. Many support policies, diversified by region, income, and so on, are also well-established. Nevertheless, gender disparity remains in the labor market transition, and more efforts are needed to guarantee practical education opportunities for vulnerable groups, such as students with disabilities, North Korean defectors, and multicultural families.

• Gender Equity

In Korea, female students' access to education had been equal to or higher than that of male students in primary, lower secondary, and upper secondary education since 1970, and this trend remained consistent in the 1990s and 2000s. However, gender disparity in career choice and labor market transition is still not alleviated. In terms of career choice, female students are concentrated in the medical profession (60.9%), education (59.4%), the humanities (55.3%) and arts and sports (54.7%), while male students comprise a high

proportion of engineering (81.6%), social sciences (56.6%), and natural sciences (55.7%) (Ministry of Education, Korean Educational Development Institute, 2017).

Since the late 1990s, Korea has supported and promoted female students in natural sciences and engineering via the scholarship provided by the Women's Development Fund. In 2003, the Act on Fostering and Supporting Women Scientists and Technicians was enacted, laying the grounds for mentoring programs for female secondary students, research funding for female tertiary students majoring in science and engineering, and career support for women scientists and technicians. In addition, in its 6th "Five-Year Plan for Economic and Social Development (1987-1991)", Korea included gender-equality education, marking the first time gender equality education was incorporated into national level policy. It also stipulated rules that prohibit prejudices based on gender roles in national curriculum development guidelines, and integrated technology and home economics courses that used to be taught separated from the opposite gender.

- **Multicultural Students**

The number of multicultural students continues to rise, in contrast to Korea's decreasing total student population. The number of the former has increased by more than 10,000 per year over the last five years, exceeding 120,000 students in 2018. As of 2018, the total number of multicultural students is 122,212, accounting for 2.2% of all students (Ministry of Education, 2019). The enrolment rate of multicultural students by educational level in 2018 are 98.1% for primary, 92.8% for lower secondary, 87.9% for upper secondary, and 49.6% for tertiary education (Choi, Y. J. et al., 2019). The enrolment rate of multicultural students decreases as educational level increases, exacerbating the gap between them and other student groups.

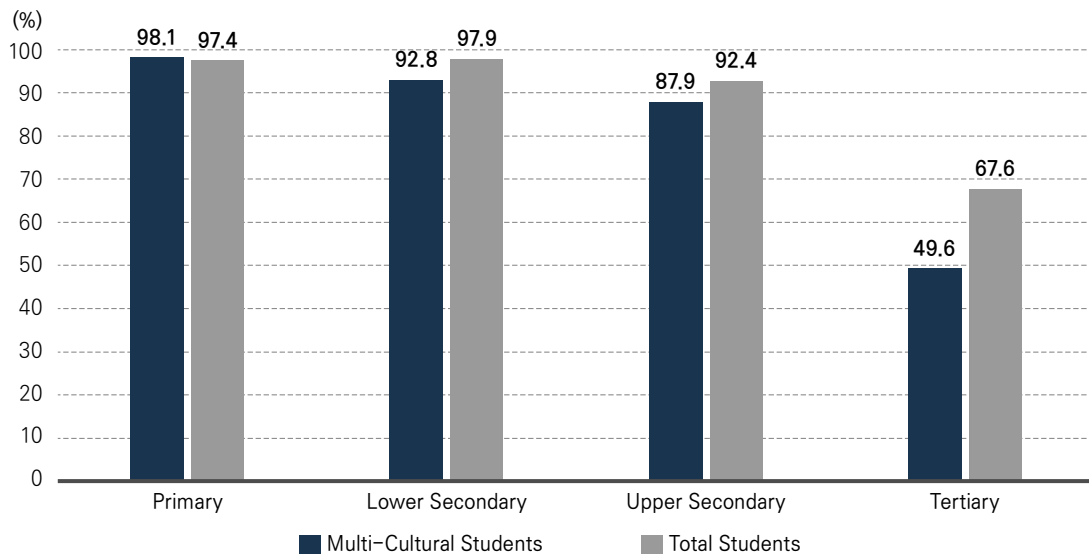


Figure 10 Enrolment Rates of Multicultural Students by Level of Education

※ Source: Choi, Y. J. et al. (2019:49).

Comprehensive support and related policies have been put in place by different ministries, such as the Ministry of Education, the Ministry of Gender Equality and Family, the Ministry of the Interior and Safety, and the Ministry of Justice (Lee, J. G., 2018). The Ministry of Gender Equality and Family announces its plans to implement the Multicultural Family Policy every year, and the 3rd Plan for Multicultural Family Policy (2018-2022) is currently being executed. The Ministry of Education likewise declares its support plan annually, focusing on multicultural education. The 2019 Multicultural Education Support Plan emphasizes strengthening tailored support for various types of multicultural students, including mid-entry and foreign students (Ministry of Education, 2019). In order to improve the language proficiency of multicultural students, Korean classes in the form of special classes are to be installed in general schools (with the goal of 222 classes by 2019), and Korean language and culture will be taught to support mid-entry and foreign students' basic learning and adaptation to the school environment (Ministry of Education, 2019).

- **North Korean Defectors**

North Korean defectors are distinguished from other immigrants in Korea and are treated with special consideration. North Korean defectors are persons who have their

residence, lineal ascendants and descendants, spouses, workplaces, etc. in North Korea, and North Korean defector youth are of those aged 6 to 24. In many cases, they experience difficulties in the initial stages of adapting to school, due to factors such as the learning gap resulting from different educational systems, the duration of the defecting process, personal characteristics, and the family environment. High quality primary education, completion of secondary education, and customized support to prevent fallout from a given educational trajectory must be ensured for the group.

In order to safeguard the defectors' rights to and opportunities for education, various programs and policies have been implemented at the government level, such as granting special admission to upper secondary and tertiary institutions. Despite such efforts, the dropout rate for North Korean defectors is 0.7% in primary education, 2.9% in lower secondary education, and 4.8% in upper secondary education; these rates are higher than those of the general student population (Ministry of Education, 2018a). In fact, most defectors from countries other than North Korea (mostly those born and raised in China) cannot speak Korean at all and thus experience hardship in adapting to the new language and school environment.

- **Students with Disabilities**

Despite the continuing efforts to secure access to appropriate education and educational opportunities for people with disabilities, many are still in poorer educational environments than their fellow students, and are not guaranteed educational opportunities and access to quality schools and VET.

Indeed, opportunities for employment and further study at the tertiary level are in great need of improvement. While the advancement rate from the upper secondary to the tertiary level is about 49.3%, most students go on to post-secondary vocational programs in special education. The employment rate of graduates with a disability possessing a high school diploma is 21.7%, and 45.4% for those with a bachelor's degree (Ministry of Education, National Institute of Special Education, 2019).

The Ministry of Education, as outlined in its Special Education Plan of 2018, aims to increase the college entrance and employment rates of students with disabilities; improve the quality of the curriculum and services for special education; establish special schools and classes according to local needs; supply qualified teachers and personnel to enhance inclusive education and educational performance; enhance support for students during pre-primary special education; safeguard students' rights to study in higher education;

promote balanced education throughout various regions and continue securing budgets; strengthen the accountability and expertise of teachers in inclusive education; and establish systematic and long-term measures to ensure continued education for students with disabilities who drop out or defer enrolment.

Implications

● **Gender Equity**

Korea has already achieved gender equality in access to primary and secondary education, and gender equity has been mainstreamed into laws and policies addressing many aspects of education. However, gender disparities remain in choice of field of study. As this choice is directly linked to employment, alleviating the gender gap in professions requires diversifying female students' majors. While encouraging female students to enter fields such as engineering is paramount, it is also important to identify and lower the barriers they face to pursuing such majors that are currently in place.

In addition, attention should be given to the qualitative aspects of gender equality alongside its quantitative aspects. Efforts must be made to create an environment in which people can choose careers free of gender prejudice or stereotyping, so as to further ensure a gender-sensitive society.

● **Multicultural Students**

To secure multicultural students' educational opportunities, resources are needed to improve their enrolment and dropout rates. Learning assistance, such as Korean language education, to provide support for their basic education is crucial, as mid-entry and foreign students underperform in school due to their lack of Korean language skills. Currently, the Ministry of Education supports early adjustment by providing Korean language education at preliminary schools for mid-entry students or foreign students. In general schools, full-time teachers are equipped to run Korean classes at all times, and this practice should be strengthened and expanded.

Along with support for multicultural students' learning opportunities and achievement, support for safe schools should be strengthened. According to the results of the recent National Survey of Multicultural Families in 2018, children from multicultural families are especially likely to experience difficulties and discrimination in peer relationships. To address this, the Ministry of Education conducts multicultural education in order to foster

the sensitivity of school members. These preventive measures should be expanded to stop violence and discrimination against multicultural students in school.

- **North Korean Defectors**

In order to guarantee education opportunities for students who have defected from North Korea, it is necessary to establish alternative learning methods and educational support systems at various levels centered on the premise of integrating students into general schools via inclusive education. In order to reduce the inequalities in educational opportunities that arise due to gaps in socioeconomic status, free primary and secondary education, special admission to tertiary education, and scholarships are provided to young North Korean defectors. However, more obstacles need to be identified and overcome as problems still persist in their school entry and adjustment.

North Korean defectors are more likely to drop out than other students. Continued support and attention are needed in order for them to adjust to schools, grow, and eventually stand on their own feet. Moreover, Korean language education support should be expanded for students born in North Korea and those from other countries.

- **Students with Disabilities**

To enhance educational and career opportunities for students with disabilities, further improvements are needed in the quality of curriculum and related services at all educational levels, and administrative and financial support for infrastructure (human resources and physical facilities) ought to be expanded.

In addition, a thorough analysis of advancement, employment, and dropout of students with disabilities is necessary, as is the long-term establishment of a system of educational infrastructure to protect their rights to learning and social participation.

- **Development of Statistics**

More disaggregated data on major indicators such as enrolment and dropout rates are needed to monitor vulnerable groups and to develop effective policies.

6 4.6. Literacy and Numeracy

SDG4.6 goal		
By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.		
Theme	SDG4.6 indicators	K-SDGs
Skills	Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	K-SDGs key indicator
	Youth/adult literacy rate	K-SDGs key indicator
Participation	Participation rate of illiterate youth/adults in literacy programmes	-

※ Global indicator highlighted in bold.

Implementation

The characteristics of literacy and numeracy among Korean adults can be examined indirectly through the PIAAC (Program for the International Assessment of Adult Competencies) (OECD, 2013). The average literacy skills as measured by the PIAAC is 273 points, the same as the OECD average, and numeracy averages 263 points, lower than the OECD average of 269 points. Korea's literacy and numeracy scores for the 16-24 age group are at high levels, but the scores for middle-aged and elderly people are very low, making it the country with the largest gap according to age group. This shows that Korea has a high percentage of people who do not have basic adequate competencies to lead a personal and professional life in this knowledge-based society. In addition to participating in the PIAAC, Korea conducts its own Adult Literacy Survey every three years. According to the survey, 7.2% of adults in Korea were illiterate (level 1) as of 2017, and the ratio is higher for rural, female, and older groups.

The Ministry of Education and the National Institute for Lifelong Education, to improve adult literacy, have been providing adult literacy education support project since 2006. In addition, the Korean government amended the Lifelong Education Act in 2016 to establish the legal basis for the National Center for Literacy Education and the Provincial Literacy Education Centers. This laid the foundation for reinforcing literacy education at both local and national levels. From 2017 onwards, the Literacy Education Information System has been built stepwise to systematically manage the information of primary and secondary-level literacy education institutions and teachers.

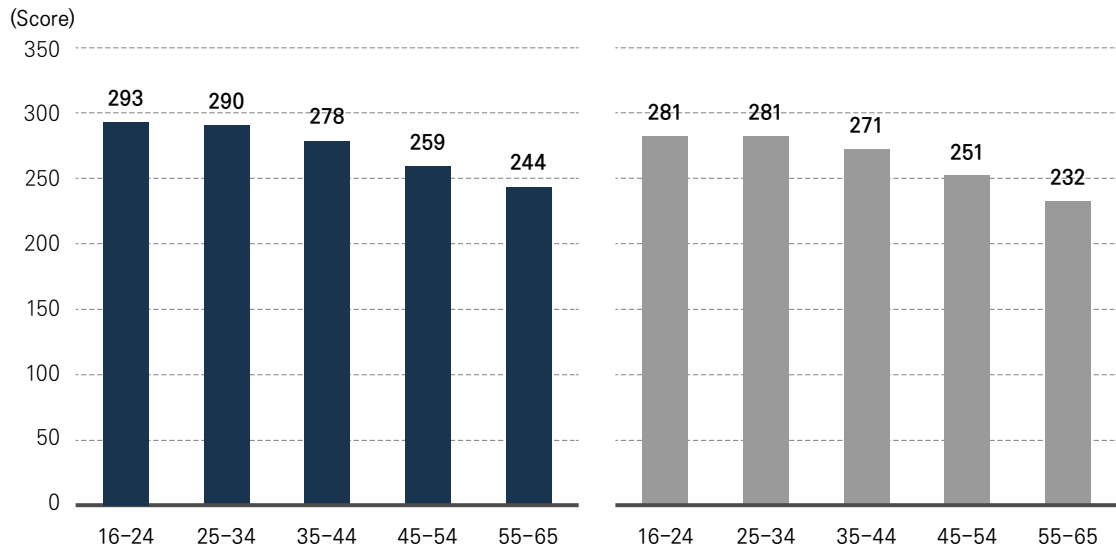


Figure 11 | Average Literacy and Numeracy Scores among Korean Adults by Age Group (PIAAC, 2013)

※ Source: MOE·MOEL·KRIVET (2013:42).

Implications

More opportunities for adolescents and adults to participate in literacy education are needed to achieve target 4.6. These efforts are already being made by the Ministry of Education and other related ministries. “The fourth National Lifelong Learning Promotion Plan” announced by the Ministry of Education in 2018, set a goal of increasing the cumulative demand for literacy education to 640,000 people by 2022.

This plan also recommends the installation of additional Provincial Literacy Education Centers; the expansion of local literacy education programs in suburban and rural areas; the provision of customized support for individual learners via various media (distance, online, etc.); the development of further content to promote functional literacy; and the continued monitoring of these efforts in order to achieve the aforementioned objectives.

7 4.7. Education for Global Citizenship and Sustainable Development

SDG4.7 goal		
By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development		
Theme	SDG4.7 indicators	K-SDGs
Provision	Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment	K-SDGs key indicator
	Percentage of schools that provide life skills-based HIV and sexuality education	
	Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per the UNGA Resolution 59/113)	
Knowledge	Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability	
	Percentage of 15-year-old students showing proficiency in knowledge of environmental science and geoscience	

※ Global indicator highlighted in bold.

Implementation

Since the 1990s, Korean society has been rapidly transforming into a global and multicultural society. In fact, increases in the number of immigrants and multicultural families, and intensifying racial, ethnic, and cultural diversity due to globalization, have brought new challenges to the existing framework of school civic education. This is because the current civic education is based on the concept of the nation state. These important changes are deeply related to quality of life issues in Korean society today. In addition, there is a need to rethink citizenship education in schools in ways that reflect the changing contours of the North and South Korean relationship, as well as other diplomatic matters with neighboring countries.

Furthermore, Korea cannot be free from global crises such as climate change, financial instability, proliferation of mass consumption, and security threats, and it is obliged to recognize these global issues and seek solutions. Accordingly, there is a growing awareness of sustainable development (SD) ensuring happiness of both current and future generations through the balanced actualization of economic development, social integration,

and environmental conservation. So is the importance of relevant education.

In this context, Korea has been carrying out various activities related to Global Citizenship Education (GCED) and Education for Sustainable Development (ESD) lead by the Asia-Pacific Center of Education for International Understanding under the auspices of UNESCO (APCEIU), and the Korean National Commission for UNESCO (KNCU). APCEIU has introduced GCED policy guides for policy makers, teaching modules for teachers to integrate GCED into the revised 2015 National Curriculum, and various other teaching and learning materials related to GCED for schools. In addition, a variety of training courses for GCED are offered to strengthen teacher skills.

With regard to ESD, various projects have been carried out through the Korean National Committee on ESD, which is run by the KNCU. Korean National Committee on ESD will review the overall implementation of ESD activities through biannual meetings and discuss future directions. Moreover, the Korean UNESCO ESD Official Project, implemented since 2011, has promoted the growth of educational activities and training on SD in Korean society while disseminating education models.

Implications

The issue of conceptual ambiguity surrounding GCED and ESD in SDG4.7 has been continuously raised since the establishment of the SDGs. Therefore, conceptual clarification through comparison and linkage analysis of elements such as GCED and ESD is needed for the effective implementation of this target. Also national education policy and curricula should reflect and mainstream these concepts and effective teaching-learning plans and materials ought to be crafted based on this foundation.

Furthermore, it is essential to expand the capacity of teachers in order to effectively implement education regarding global citizenship and sustainable development. In the field of education, there is an increasing demand for in-depth training in various transformational pedagogies and newly emerging subjects, as well as an understanding of GCED and ESD. Teaching and learning materials that are more diverse and professional, while continuing to meet current criteria, should be developed and disseminated.

Likewise, cooperation with civil society needs to be further strengthened in terms of vitalizing GECD and ESD. Moreover, in a global environment where relevant monitoring and evaluation process including developing indicators is prioritized, it is essential to closely track the global trends in the related fields and respond quickly at a national level.

8 4.a School Environment

Goals		
SDG4.a	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	
K-SDG4.8	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	
Theme	SDG4.a indicators	K-SDG4.8 indicators
Resources	Proportion of schools with access to: (a) electricity; (b) Internet for pedagogical purposes; and (c) computers for pedagogical purposes	Percentage of general schools with special classes
	Proportion of schools with access to: (d) adapted infrastructure and materials for students with disabilities	
	Proportion of schools with access to: (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)	Percentage of schools that have completed done seismic retrofitting
Environment	Percentage of students experiencing bullying in the last 12 months	Percentage of primary and secondary schools with “Wee classes.” * Wee class: school counseling office for at-risk students
	Number of attacks on students, personnel and institutions	

※ Global indicators highlighted in bold.

Implementation

While SDG4.7 to 4.10 are the goals to be accomplished in each focus area, 4.a, 4.b, and 4.c are the means to achieve those goals. Among them, 4.a is about school environment, and it aims "to build and improve school environment that takes into consideration the needs of children, the disabled, and gender difference, and to provide a safe, nonviolent, inclusive, and effective learning environment for all."

Considering the situation in Korea, K-SDGs set the detailed goal of 4.8 as: "building and improving the school environment so that it takes into consideration the needs of children, the disabled, and gender, and providing a safe, nonviolent, inclusive, and effective learning environment." For the monitoring indicators of this goal, first, the special education class installation rate for regular schools was selected to ensure the special education option is available in regular schools particularly in cases where students are more prone to be integrated or have less severe disabilities. Second, in order to prevent

disasters in school facilities and secure students' safety, school earthquake reinforcement goals have been set to 25% by 2022, 40% by 2025, and 100% by 2030 (Ministry of Education, 2018d). Finally, the 'Wee class' installation rate was chosen as the main monitoring indicator for identifying and supporting at-risk youth at an early stage, helping them adapt to school environment and surrounding social circumstances, and providing counseling and education in the sense that the government is responsible for school education, mental health and student welfare. The target for this metric is to 73.7% by 2022, 90% by 2025, and 100% by 2030 (Ministry of Education, 2018d).

- **Accessibility for Students with Disabilities**

It is important to establish and improve educational facilities that take into consideration children, the disabled, and gender differences to ensure the opportunity to receive inclusive and equitable quality education for all. In the case of Korea, although the improvement of educational facilities sensitive to differences in age and gender has progressed considerably, educational accessibility for students with disabilities is still low. Building school facilities and expanding special classrooms for students with disabilities are necessary, as is improving the facilities offered by schools to assist students with disabilities. As of 2018, each proportion of the special education class which is installed in regular school is 70.2% of primary school, 56.2% of middle school and 45.6% of high school (Ministry of Education, 2018b).

- **Safety of School Facilities**

Due to a growing number of disasters and accidents, the public interest in anti-earthquake safety measures at schools has surged. Accordingly, the institutional basis for the establishment of safe school facilities has been provided by revising the Special Act on the Safety of Facilities and Maintenance Management, the School Safety Accidents and Compensation Law and the Basic Act on Educational Facilities (proposed by the headquarters or relevant committees in March 2018). In addition, Article 42 of the Building Code and Article 32 of the Enforcement Decree of the Construction Act stipulate earthquake-resistant design for buildings exceeding a certain size, and in the case of public facilities such as schools, seismic retrofitting of existing buildings is currently being done.

- **Safe School Life**

Strengthening the system to protect and support the alienated children and adolescents who experience difficulties in adapting to changing societies and school environments is necessary. The OECD defines at-risk youth as students with special educational needs, such as those resulting from poverty, a lack of care and supervision from parents, attempts to run away and the homelessness that lead to abuse and neglect, so it is necessary to seek them out and offer them support at an early stage. Korea is at present promoting a policy to identify and support at-risk children and vulnerable adolescents through the School Safety Integration System (Wee Project). The Wee Project supports the education, mental health, and welfare management of students by locating, counseling, and educating at-risk students and was built with a three-step safety net: the Wee Class (unit school), the Wee Center, and the Wee School. As of 2017, there were 6,624 Wee Classes, 209 Wee Centers, 13 Wee Schools, 2,297 professional counseling teachers, and 3,681 professional counselors in Korea. When comparing 11,909 primary, middle, and high schools, the need for the quantitative and qualitative expansion of the Wee Project became clear.

Implications

- **Accessibility for Students with Disabilities**

It is necessary to establish additional special schools to improve accessibility for students with disabilities and to increase special education classrooms in regular schools. Also, securing the installation of a certain number of special classes in regular schools is paramount. This target should be set with consideration of how many students with disabilities are in need of such facilities. Moreover, it is important to improve the environment of the facilities for these students. Recently constructed schools are required to acquire an "obstacle-free living environment certification level (BF)," but it is difficult to acquire this BF level through the facilities improvement of existing schools. For these schools, certain measures, such as elevator installation at the very least, are needed to secure educational accessibility for students with disabilities.

- **Safety of School Facilities**

It is necessary to raise the safety level of the school building gradually by raising the grade rate of the school building, so that students can understand the educational space as

a safe one. Moreover, it is advisable to ensure that earthquake-proof performance is achieved by gradually increasing the size of school buildings in order to increase their level of earthquake safety. Legal safety check procedures have produced positive effects, as even small buildings with a total floor area of 1,000m² or more and which were built more than 15 years ago have to pass biannual safety inspections.

- **Safe School Life**

It is necessary to strengthen and expand the school safety integration system so that at-risk youth can be identified early, safeguarded effectively within the school, and provided with adequate educational support. For this, it is important to install Wee Classes in each school and gradually expand the number of Wee Centers region by region. In addition, professional counselors familiar with the school environment should be dispatched.

9 4.b Scholarships / Educational Finance

Goals		
SDG4.b	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular the least developed countries, such as small island developing states and African countries, for enrolment in higher education, including vocational training, and programmes in information and communications technology, technical, engineering and science at institutions in both developed countries and other developing countries	
K-SDG4.9	Ensure sufficient financial resources for inclusive quality education at all levels	
Theme	SDG4.b indicators	K-SDG4.9 indicators
Scholarships	Volume of official development assistance flows for scholarships by sector and type of study	-
	Number of higher education scholarships awarded by beneficiary country	-
Educational Finance	-	Public expenditure on tertiary education as a percentage of GDP

※ Global indicator highlighted in bold.

Implementation

The detailed objectives of SDG4.b are set to foster high-quality human resources in the science, technology, and engineering fields for the sustainable development of developing countries at the global level. The Ministry of Education's Global Korea Scholarship (GKS) and Korea International Cooperation Agency's (KOICA) master's degree programs are particularly noteworthy. The GKS is an ODA project that finance the degree and non-degree courses of foreign students from developing countries at the tertiary level, accounting for 60% of the total ODA budget of the Ministry of Education. Moreover, KOICA's master's degree project provides support for study in special fields through cooperation with domestic universities.

SDG4.b's detailed global goals and indicators are not appropriate for domestic implementation or monitoring in that they are aimed at fostering high-quality human resources in developing countries at the global level. K-SDG4.9 has set its goals and indicators in terms of methods aimed to guarantee educational opportunities in Korea at the national level. In other words, K-SDG4.9 defines the goal as "ensuring sufficient educational finance for all educational levels for inclusive and high-quality education," so the percentage of public expenditure on tertiary education relative to GDP is being chosen as the monitoring indicator for this target.

For this, the government has restructured the University Finance Supporting Project into three types of universities (national universities, general financial support, and special purpose support) and four projects (promoting national universities, university innovation support, industrial cooperation, and research). The government is pushing ahead with a general financial support project that greatly strengthens the autonomy of universities so that it can take advantage of the ideology, characteristics, and strengths of such universities. In the mid- to long-term, the government plans to expand higher education funding by expanding general financial support, and plans to continue expanding the government's financial support for higher education to the level of the OECD (1.1% relative to GDP) by 2030.

In addition, the government has been promoting a national scholarship program, abolition of entrance fees, student loan access, a national work-study program, the reduction of student housing expenses, and blue ladder businesses that provides opportunities for undergraduates to study abroad (Park, S. H. et al, 2018). In order to equalize the opportunities for tertiary education, it is necessary to expand the financial scale of tertiary education and support stable and sustainable development, such as increasing the absolute level of public expenditure on tertiary education per student, and lowering overdependence on the private sector through public education expenditure.

Implications

To achieve the goal of strengthening cooperation in higher education and expanding scholarships in the future, the support of various types of scholarships in addition to expanding the scale of scholarships is necessary. In order for international students from developing countries to deepen their expertise through studying in Korea, and ultimately to become competent individuals who can contribute to the success of their home countries, it is also necessary to develop a management plan for the entire process, from initial selection to after their return to their home countries. In addition, each university should actively participate in these efforts, while the government should in turn support the universities.

Regarding the national sustainable development goals articulated in K-SDG4.9, it is necessary to reduce the cost burdens of continuing tertiary education as well as equalize the opportunities for enrolment in order to expand practical access to in tertiary education. In 2015, the proportion of public expenditure on tertiary education relative to GDP in

Korea was 0.7% (final funds), and the share of public expenditure on tertiary education was 36.1%, which is only half of the OECD average of 66.0% (OECD, 2018). In addition, the ratio of public expenditure on tertiary education per student was only 59.3% of the OECD average in 2014 (OECD, 2017). Also, the proportion of tuition fees paid by households is 49% on average, which is relatively high compared to other OECD countries (Ministry of Education, 2018e).

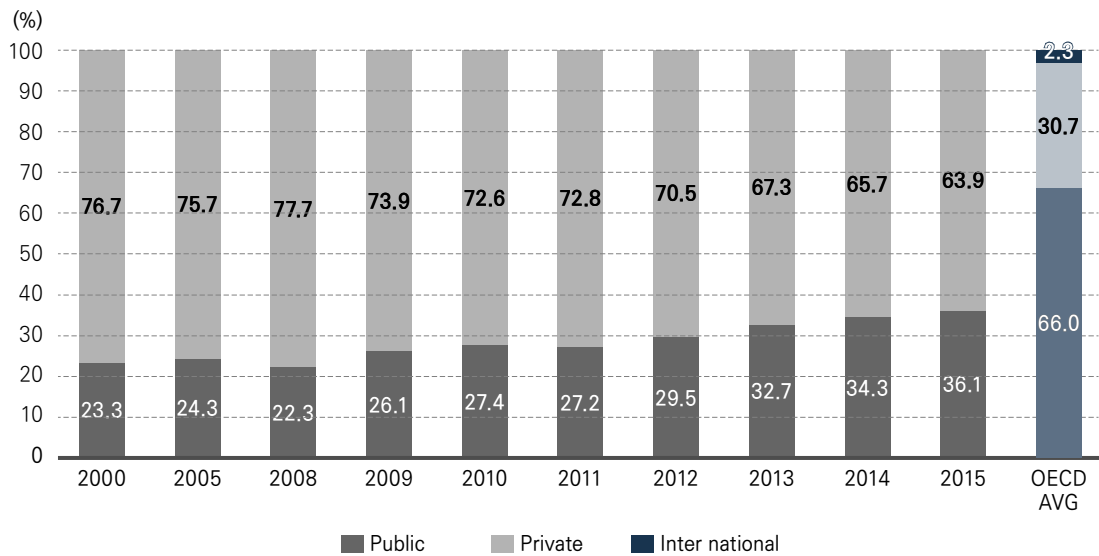


Figure 12 | Relative Shares of Public and Private Expenditure on Tertiary Education

※ Source: OECD stat(reference year, 2000, 2005, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015)

10 4.c Teachers

Goals		
SDG4.c	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially in the least developed countries and small island developing states.	
K-SDG4.10	Secure teacher supply for quality education at all levels	
Theme	SDG4.c indicators	K-SDG4.10 indicators
Trained	Proportion of teachers in: (a) pre-primary education; (b) primary education; (c) lower secondary education; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g., pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country, by sex	
	Pupil-trained teacher ratio by education level	
	-	Student teacher ratio in special education at the primary and secondary level
	-	Student teacher ratio in kindergarten
	-	Percentage of primary and secondary schools with counselors or counseling teachers
Qualified	Percentage of teachers qualified according to national standards by education level and type of institution	Percentage of early childhood teachers with tertiary degrees
	Pupil-qualified teacher ratio by education level	-
Motivated	Average teacher salary relative to other professions requiring a comparable level of qualification	-
	Teacher attrition rate by education level	-
Supported	Percentage of teachers who have received in-service training in the last 12 months according to type of training	-

※ Global indicator highlighted in bold.

Implementation

In the SDGs, the expansion of educational opportunities and the improvement of educational quality on all educational levels have been emphasized as important goals, and the importance of teacher education is highlighted to improve the quality of education. In developing countries, not only is the absolute number of teachers insufficient to accommodate any expansion of educational opportunities, but also the proportion of teachers lacking minimum qualifications is very high. The lack of qualified teachers in

socially and economically deprived areas is an especially serious problem. Since qualified teachers are needed in greater numbers to achieve SDGs' educational goals, strengthening international cooperation in the field of teacher education has been suggested as an important goal. Korea has spent about \$587,000 in teacher training ODA over the past decade to further progress toward this common goal.

At the domestic monitoring level, K-SDG4.10 defines its detailed goal as "to secure a sufficient number of teachers to provide quality education at every educational level." In international comparisons, general education teachers in Korea are excellent in terms of both quantitative scale and qualitative level. However, the number of early childhood education teachers, special education teachers, and counselors remains insufficient. Nursery-school teachers in particular are less qualified in terms of education and training hours compared to teachers at other levels. Therefore, in K-SDG4.10, four domestic indicators were chosen: ① the ratio of holders of more than a bachelor's degree among nursery school teachers, ② the number of special students per special education teacher, ③ the proportion of regular teachers in public kindergarten, ④ the placement rate of elementary and middle school counselors.

Implications

The Korean government needs to expand the scale of this ODA project in the field of teacher education in order to contribute to achieving the global goal of SDG4.c, and to respond to the needs of international community. The global effort to provide qualified teachers has progressed by emphasizing the overall institutional capacities of teacher education, such as teacher training, retraining, qualification systems, selection, and recruitment; alternately, it has aimed to enhance the capacities of professors or students from teacher training institutes as well as current teachers. Horizontal cooperation appropriate to the system of the target country is needed so that recipient countries willing to improve their teacher education system and promote this policy can benefit.

In Korea, in general, it is imperative to increase the number of students per teacher to the OECD average by 2022 and to secure the number of teachers in kindergartens, special education, and extracurriculars (health, professional counseling, etc.), thereby strengthen national accountability. At present, early childhood education and child care in Korea differs from the legally defined positions of kindergarten and nursery school teachers, in terms of jurisdictional departments, qualification divisions, minimum

educational standards, and the fostering and training system; this has yielded a dichotomous system. In order to ensure the quality of universal early childhood education, revising and standardizing the qualification standards of kindergarten teachers and nursery school teachers, alongside raising the minimum qualification standards to the ISCED level 6 in accordance with international standards, are necessary steps.

It is necessary to strengthen the system to protect and support the alienated children and adolescents who have difficulties in adapting to changing social and educational environments. The Korean government promotes a policy which detects and supports at-risk children and adolescents through the School Safety Integration System (Wee Project). The number of professional counseling teachers and professional counselors is continually increasing. As of 2017, there are 2,297 professional counseling teachers and 3,681 professional counselors. Considering the number of elementary, middle, and high schools, 11,909 in total, the workforce of professional counseling teachers and professional counselors needs to be expanded, both quantitatively and qualitatively.

Lastly, with regard to special education, securing the number of special education teachers per student according to legal standards, as well as strengthening the professionalism and accountability of those teachers in charge in order to reinforce integrated education, is necessary.



VI

Conclusion

Korea has made notable progress in establishing and implementing SDGs on two fronts; one is setting a solid foundation and preparing an implementation structure for the monitoring of SDGs and the other is promoting supportive policies to achieve SDGs.

In terms of the former, Korea has formulated a national-level plan, created an organizational and operational structure, and thereafter carried out a number of activities. Above all, establishing the governance of sustainable development was incorporated in the national agenda with a new government in power. Under the leadership of the National Commission on Sustainable Development, ministry-wide efforts were made to contextualize and manage SDGs while K-SDGs and its indicators were devised using a bottom-up approach. The K-SDG4 Working Group consisted of civic groups, industries, government ministries, national research institutes, and college professors prepared a preliminary draft which was later reviewed by concerned stakeholders, internal takes force and director generals of relevant ministries. Following nationwide public debates and a series of meetings of the National Commission on Sustainable Development, the K-SDGs were approved by the State Council in December 2018.

Modified from SDGs to fit the Korean settings, K-SDGs omit goals related to extreme poverty, malnutrition, harmful practices committed against women, etc. while newly adding ‘preventing chronic diseases’, ‘tackling low birth rates’, ‘developing alternatives to plastic products’, ‘fostering integrated water management’, ‘achieving permanent peace in Korea’, etc. As far as the SDG4 is concerned, the Korean government formed a commission called the Korean SDG4-EDUCATION 2030 Network in April 2017 with the Ministry of Education playing a role of national coordinator and the Korean National Commission for UNESCO (KNCU) of focal point. Comprised of a total of 11 organizations including

KNCU and KEDI, the network took part in establishing and raising awareness of K-SDGs, held conferences and forums, and produced and disseminated 11 card news.

There are some progress made towards 10 targets from 4.1 to 4.c, but more should be done. As regards primary and secondary education, students have consistently performed well in international assessments and free and compulsory education is provided from primary to lower secondary level. The issues at stake are creating a safety net for ensuring basic academic skills and systematically supporting under achievers. In order to monitor them, the following two indicators were adopted: “proportion of students achieving at least a minimum academic proficiency for international assessments”, “administration of a nationally-representative learning assessment”. Providing free education at the upper secondary level is under discussion. Continuous monitoring and policy support are needed to address low-achieving students, ensure educational opportunities for the vulnerable and examine their performance.

With respect to early childhood education and care, the Nuri curriculum was introduced for all 3- to 5-year-olds in 2012 and the average annual enrolment rate in kindergartens and childcare centers has exceeded 90% since 2013. With a view to strengthening the publicness of education, the gross early childhood education enrolment ratio was selected as a national indicator. It is further required, however, to secure stable and sufficient financial resources for early childcare education and care and to provide good quality education opportunities for all children.

While TVET and tertiary education in Korea has become universal as attested to by high enrolment rates, expensive tuition fees have generated access and equity issues for the disadvantaged. To address that, the government introduced an Income Contingent Loan (ICL) system in 2010 and a national scholarship program in 2012. It is also worthy of note that there is a significant generation gap regarding tertiary education attainment. Therefore, the government should take a particular course of action to encourage adults to participate in lifelong learning, continuously monitor job-related participation rates, and develop competencies required to prosper in the future.

Gender disparity is not a concern at the primary and secondary education levels and efforts have been made to bridge the urban-rural gap and reduce income inequality. However there remain considerable gender differences in career choice and labor market transitions, and it is imperative to make sure that the vulnerable are provided with equal educational opportunities. Literacy and numeracy skills of Korean adults are about the same as the international average whereas those of the middle-aged and elderly are

remarkably low. In this respect, the government should spare no effort to improve adult literacy. On another front, numerous activities concerning GCED and ESD have been undertaken to enhance public understanding of global issues and invite their participation to solve them. Policy guides, teaching modules and other materials have been produced and disseminated, and capacity-building trainings have been offered to teachers. Given the ambiguity over the meaning of GCED and ESD, it is necessary to elucidate their concept in cooperation with civic groups.

In order to achieve SDG4, It is critically important to build education facilities, ensure sufficient financial resources and secure good quality teacher supply. With much of the aforementioned aspects are in place, the Korean government focuses on providing educational opportunities for the disadvantaged and creating a safe learning environment. More attention should be paid towards building special schools, increasing special classes in general schools and supplying qualified teachers to enhance inclusive education, and restructuring educational space and strengthening safety, and identifying and supporting at-risk children and adolescents. Moreover, it is required to lower overdependence on the private sector to finance tertiary education. While competent teachers are in good supply in Korea, there is a shortage of kindergarten and nursery school teachers, special education teachers and counseling teachers. The priority must be to review teaching requirements as well as to secure an adequate number of teachers in accordance with legal standards.

Despite significant progress made to achieve SDG4 in Korea, there is still a room for improvement. First and foremost, SDGs should be refined, concretized, and modified to take the national context into account, in addition to developing their indicators. While K-SDGs were put together in 2018, issues surrounding their concreteness and validity are yet to be resolved. It is particularly important to invite experts and professionals to review and improve indicators developed and make sure they are aligned with the goals.

Active engagement and participation of government ministries are all the more necessary. Although the implementation structure of K-SDGs was established involving the National Commission on Sustainable Development, government ministries, relevant organizations, etc., policymakers in charge show a low level of interest. In contrast, excessive intervention makes it difficult to retain validity and objectivity when selecting indicators. What is needed is to gather ideas from civic groups and experts and provide further training for policymakers.

Collecting data is as crucial as making the goals aligned with indicators and securing the validity and objectivity of indicators. Low validity of indicators is partially attributed

to challenges in data collection as relevant data is not collected at all or, if collected, its utilization is constrained. It is, therefore, advised to enhance the data collection environment given the fact that it is possible to collect data previously impossible thanks to digitization and develop and utilize indicators previously impossible through data linkage.

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〈ANNEX 1〉 K-SDG4 targets and indicators

No.	Targets (10)	Indicators (27)	Tier
4-1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	○ Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	I
		○ Develop(Define and calculate) typical indicators for learning assessment at national level	I
4-2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	○ Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	III
		○ Proportion of children aged 3 to 5 years who are in compulsory pre-primary education and early childhood educational development, by sex	I
		○ Gross early childhood education enrolment ratio in Public nursery and kindergarten(or pre-primary schools)	I
		○ Percentage of children experiencing positive and stimulating home learning environments	III
4-3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	○ Participation rate of youth and adults in non-formal education and training in the previous 12 months, by sex	II
		○ Educational attainment (Percentage of adults aged 25-64 years who attained the tertiary education)	I
		○ Private Expenditure per student of the tertiary educational institutions	I
4-4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	○ Participation rate(or Numbers) of youth and adults in lifelong education	I
		○ Participation rate(or Numbers) of youth and adults in VET(Vocational Education and Training), by sex and age	II
4-5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	○ Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	I / II / III
		○ Enrollment rate (by sex, indigenous peoples and disability status etc.)	II
		○ Drop-out rate (or discontinuation rate) (by sex, indigenous peoples and disability status etc.)	II
4-6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	○ Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	I
		○ Literacy rate of youth and adults, by sex and age	II

No.	Targets (10)	Indicators (27)	Tier
4-7	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	o Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies	III
		o Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (b) curricula	III
		o Cumulative numbers of teachers who had got teaching capacity building training for Global Citizenship Education	II
4-8	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	o Percentage of special classes for disabled children at general schools which are in the formal education	I
		o Stability of the schools which are in the formal education	II
		o Percentage of 'Wee classes' (a kind of the counselling office for the school violences) at primary and secondary schools which are in the formal education * Wee : We Education + We Emotion (Class for student'counseling)	II
4-9	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	o Annual expenditure per student in tertiary education	I
4-10	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	o Percentage of teachers attained tertiary education in nursery	II
		o Disabled student - dedicated(or special) teacher ratio of in primary and secondary education	I
		o Percentage of teachers who is employed regularly in public pre-primary schools	II
		o Percentage of primary and secondary schools which placed counselors or counseling teachers	I

* Source: Relevant Ministries (2018:4). the 3rd Sustainable Development Goals Plan Changed Proposal (2016-2035)

* Note: Tier information reclassified by collaborative research team

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Implementation of the Sustainable Development Goal 4 in Korea