

Abstract

The Research on Education Development Cooperation for Achieving
Sustainable Development Goals (III):
Action Strategies for Higher Education

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This study was carried out to develop an action strategy for the development cooperation in higher education to support developing countries in achieving SDGs. In modern society, characterized by the Fourth Industrial Revolution, increased mobility, the development of advanced science and technology, and hyperconnected societies, higher education is required to take the lead in addressing complex and unpredictable new challenges beyond its traditional role of education and research. Developing countries, in which accessibility is still a major challenge for higher education, face the challenges of quantitative growth in higher education alongside the new challenges that modern society demands for higher education.

A closer look at the targets (SDG 4.3) and implementation measures (SDG 4.b) relating to higher education outlined in the SDGs suggest that ‘improving access’ is a top priority. SDG 4.3 states its target as “by 2030 ensure equal access for all women and men to affordable quality technical, vocational and tertiary, including universities” (Korean National Commission for UNESCO, 2016, p. 27), and as a related implementation measure SDG 4.b states the target as “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.” As such, the most apparent emphasis in the SDGs on higher education is to increase access to higher education and to increase scholarships for its implementation. However, the emphasis is on supporting vocational training, ICT, science and technology, and engineering based on the principle of equity and on the premise of fair cost and high-quality higher education, rather than unconditional expansion of access. In other words, it is based on the improvement of the quality of higher education, and it aims to ensure the sustainability of the country and society by training talented people who can contribute to the fields that can directly affect the current and future industries (ICT, science and technology, engineering, etc.). Considering the SDGs’ view on higher education, this study aims to define the three goals of ① better access, ② higher quality, and ③ higher sustainability and to derive action strategies for implementing these three goals.

In this study, various contents were analyzed to establish action strategies for development cooperation to improve accessibility, quality, and sustainability of higher education. First, the international trends on higher education and the current state of higher education in Korea was analyzed in order to determine the current issues of higher education. Second, the recipient countries were categorized

based on indicators related to accessibility, quality, and sustainability of higher education and the characteristics and challenges of higher education of Korea's nine priority partner countries were analyzed in order to better understand the status of higher education in developing countries. Third, recent ODA projects in the higher education sector carried out by Korea have been analyzed in order to grasp the status of development cooperation projects in the higher education sector in Korea. Fourth, the current status and characteristics of the higher education development cooperation projects carried out by international organizations and advanced donor countries were analyzed. In order to analyze the research contents, research methods such as literature analysis, international cooperative research, statistical data collection and analysis, case study, consultation, and holding research seminar and policy forum were used. The analysis of research contents are summarized as follows.

Chapter II identifies trends and issues surrounding higher education at home and abroad. First, the changing international trends of higher education were divided into ICT, mobility, quality assurance and degree recognition. First, ICT is an important means of achieving the goals of higher education in terms of increasing access to quality education and enabling continuous development. As the use of ICT is expected to accelerate in higher education, such as the provision of online education and open education materials, it was discussed that higher education institutions should be more open and play a role that actively responds to social needs. In addition, government institutions and policies are required to enable universities to actively cooperate with the private sector in developing and utilizing ICT technologies.

Second, mobility around higher education is expected to become more active in the future, such as higher education programs, curriculum shifts, campus shifts, and human resources (students and staff). In order to solve the problems

faced by Korean universities, such as the rapid decrease in the number of students due to the population cliff, measures to increase the mobility of students and staff are required. Promoting mobility also provides students in developing countries with an easier access to quality higher education. Quality assurance, degree recognition, and information sharing are key to promoting mobility, and should be made available first. In addition, active discussion and support are needed for the establishment of overseas branches of Korean universities in terms of not only human movement but also programs and campus movement.

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Secondly, mobility around higher education is expected to become more active in the future, such as the migration of higher education programs and curriculum, campus migration, and migration of human resources (students and staff). In order to solve the problems faced by Korean universities, such as the rapid decrease in the number of students due to the demographic cliff, measures to increase the mobility of students and staff are in demand. Promoting mobility also provides students in developing countries with an easier access to quality higher education. Quality assurance, degree recognition, and information sharing should be given

priority and should be available first as they are key to promoting mobility. In addition, active discussion and support are needed for the establishment of overseas branches of Korean universities in terms of activating not only human resources mobility but also program and campus mobility.

Thirdly, the ensuring of quality of higher education is currently being stimulated not only by individual countries but also by regional cooperatives. Quality assurance is essential for the provision of quality education and the promotion of mobility, but the certification system is only perfunctory still due to the lack of awareness. The development of sustainable, high-quality higher education needs to have an international quality management system and follow international guidelines.

Lastly, the issue of degree recognition is being promoted based on the UNESCO Convention to achieve the core target of higher education, which is to increase access to higher education. Until now, degree recognition in Korea has been carried out through autonomous evaluation and accreditation of each university. However, with the rapid increase in mobility of tertiary education, agreements for qualification (degree) recognition have been signed between countries in the region, and their implementation is now being monitored. Successful implementation of the degree recognition agreement requires inclusive strategies such as information sharing in higher education and protection of refugees in the degree recognition process.

Next, we analyzed the status of higher education in Korea and international development cooperation strategies. Issues such as high-cost and low-efficiency structure, lack of role division and linkage system among institutions, acceleration of structural reform, reduction of finance, increased demand for innovation, diversification of international students, weak quality guarantee system, individualized

internationalization strategy, etc. were raised as issues currently being faced by higher education in Korea.

Based on these situation of domestic universities, solutions such as fostering leading universities in higher education development cooperation, linking students' education with employment and development cooperation projects, utilizing retired experts such as retired professors and civil servants, establishing a joint research network and platform in the region of ASEAN + 3, and the establishment of a monitoring and evaluation system for higher education development cooperation program were all proposed as a priority task of development cooperation in the field of higher education.

Subsequently, Chapter III identifies the state of higher education in developing countries. To this end, an analysis was conducted to categorize developing countries on the basis of various levels of higher education in each developing country, and to explore the trends and development challenges of higher education in each of the nine priority partner countries in Korea.

The 143 recipient countries of the OECD DAC were analyzed and classified into countries based on overall economic and social development level, higher education level, R&D level, and industry level. First, when categorized based on the overall level of economic and social development, most of Korea's priority partner countries belonged to underdeveloped country groups with high concentration of employment in agriculture. These countries have low GDP, low enrollment rates, and low gender equality indices, requiring support not only in higher education but also in education and all sectors.

Second, as a result of the typological analysis according to the level of higher education using indicators related to higher education accessibility, the priority partner countries were classified into two types. The first type is a group of countries with significantly lower budgetary spending in higher education and

therefore very low levels of development in higher education, including priority partner countries belonging to Africa such as Ghana, Rwanda, and Mozambique, and priority partner countries belonging to the Asia such as Nepal, Laos, Bangladesh, Sri Lanka, and Cambodia. In these countries, projects that establish the basic framework for higher education, such as infrastructure construction and faculty training, need to be supported primarily. The second type is a group of countries with a relatively high proportion of educational spending on secondary education and above, with moderate tertiary education development. These include Vietnam, Indonesia, the Philippines, Colombia, and Peru. This type requires support for raising the quality of higher education and a strategy for improving access based on equity.

Third, as a result of the typological analysis according to R&D level, all of Korea's priority partner countries except Vietnam were classified as typical R&D underdeveloped countries. This type has a very small R&D workforce, especially with very low ratio of researchers and low R&D expenditures, which means they lack the high quality workforce needed for the national strategic industry. In these countries, support for capacity-building projects for professors and researchers in various ways is needed first and foremost, and thus establishing a research institute linked to the national main industry sector in higher education institutions to enable continuous research and development was proposed.

Fourth, as a result of typological analysis according to industrial structure, priority partner countries were classified into two types. The first is characterized by very low GDP, agricultural-oriented industrial structures, consumer goods-based spending, and low service spending, mainly consisting of Least Developed Countries in Africa and Asia. In order to increase the sustainability of higher education in these countries, it is necessary to draw up short-term, medium-term and long-term industrial development plans through thorough labor market analysis

and forecasting, and strategically adjust the speed of producing higher education curriculum and manpower accordingly. The second type is characterized by moderate GDP, higher value-added manufacturing and industry than agriculture, and high levels of spending on social infrastructure and services, which are countries including Mongolia, Sri Lanka, Indonesia, Philippines, Bolivia, Colombia, Paraguay and Peru. In these countries, the government needs to provide necessary manpower for existing industries such as manufacturing and service industries, while at the same time expanding support in related fields to enhance its competitive edge in ICT and science and technology in the future.

Next, trends and development challenges of higher education in each of the nine priority partner countries that have high demand for development cooperation in higher education were explored. First, the status and challenges of higher education in six Asian countries of Laos, Mongolia, Myanmar, Vietnam, Indonesia, and the Philippines were analyzed. For Laos, securing university autonomy, expanding education resources, bridging gaps in regions within Laos, and raising awareness and support for science and vocation training were all proposed as challenges in higher education. In the case of Mongolia, the challenges of higher education have been to raise graduates' employment rate, to improve quality, to establish research-oriented universities, and to conduct evaluations for quality management. Myanmar's challenges for higher education were analyzed as improving access to equity, improving teaching quality, establishing a competence-based university entrance examination system, and improving university autonomy. In Vietnam, improving quality, securing university autonomy, and expanding financial investment in higher education have been suggested as priorities for higher education. The main challenges for the development of higher education in Indonesia were to increase access through scholarships, to increase income and regional equity with regards to entering high school, to cultivate high quality technical personnel, and to expand industry-academic cooperation. In the

Philippines, the main challenges were to cultivate experts and researchers, to improve the quality of higher education institutions, to improve the management system of higher education governance, and to expand the support for the underprivileged class.

Second, the status and development challenges of higher education in the three African countries of Ghana, Rwanda, and Uganda were analyzed. In Ghana, improving infrastructure, increasing access to vulnerable social groups, and strengthening teaching capacity have been proposed as the main challenges of higher education. In Rwanda, improving the quality of teaching methods, financial resources, and accessibility were raised, while improving the quality of private universities and university restructuring, expanding access to vulnerable social groups, strengthening research capacity, and fixing the brain drain issue have been raised as challenges for higher education. Comparing the trends and development challenges of higher education in each of the nine priority partner countries indicates that these countries share similar problems, despite their specificity. In these countries, accessibility needs to be expanded in consideration of the equity of various vulnerable social groups, quality should be improved through strengthening teaching and research capacity, and governmental control should be relaxed to secure university autonomy.

Chapter IV analyzed the current state of higher education ODA projects from 2015 to 2017 to find out how Korea has been implementing ODA projects in the field of higher education.

First, the statistics relating to ODA projects in the field of higher education in Korea were analyzed. According to these results, the frequency of ODA projects in higher education has been steadily decreasing in Korea in the past three years, but spending has repeatedly fluctuated. By type of cooperation, the most expenditure

was spent on supporting international students and trainees, followed by project assistance and technical cooperation respectively. Compared to the previous years, spending on project aid decreased significantly in 2017, but technical cooperation increased significantly. Most of the projects were free aid, and by region, although a lot of support was focused on Far East Asia but ‘unallocated regions’ accounted for the largest percentage. This is because international student and trainee support projects represented as GKS are classified as unallocated regions. In terms of individual country, Vietnam received the most support in all three years. By field of study, the focus was on support for science and technology and health / medical fields. As for the purpose of cooperation, scholarships to increase accessibility accounted for the most expenditure, followed by infrastructure (facilities) building, vocational education and training, and research and development respectively.

Next, Korea’s ODA projects in the higher education sector were analyzed by each project implementing institution such as the Ministry of Education Korea, KOICA, and EDCF. The Ministry of Education of Korea has been carrying out the largest number of ODA projects in higher education, followed by KOICA and EDCF. Compared to the Ministry of Education or KOICA, EDCF was implementing a much lower number of projects, indicating that ODA in higher education is mainly carried out in the form of grants. Representative projects of the Ministry of Education include the Global Korea Scholarship, ASEAN University E-Learning Support Project, Leading University Project for International Cooperation, Global Education Support Project, and UNESCO-UNITWIN Project. In KOICA, projects accounted for the largest proportion, and higher education projects were being carried out within the projects of inviting trainees and public-private cooperation. In the case of the EDCF, which is in charge of ODA loans, there were very few projects in the field of higher education.

In terms of improving access, quality, and sustainability, which are emphasized in the SDGs, Korea has been mainly contributing to ‘improving access,’ but overlooked issues pertaining to vulnerable social groups, women, and underdeveloped areas. In recent years, there have been increases in projects aimed at improving the quality of higher education in recipient countries by reforming the university curriculum and strengthening teaching capacity, but they are still being implemented on a small budget, and projects relating to the development of faculty research capacity and promoting growth in the field of science and technology have been disregarded. Furthermore, the number of projects focused on improving sustainability is almost nonexistent. In order to achieve the SDGs goals and targets, Korea’s ODA projects in the field of higher education should strengthen the linkage between institutions and projects, expand opportunities for higher education for vulnerable social groups, increase the proportion of integrated support package projects, link with other ODA projects that lead to industrial development in developing countries, and to establish and operate the ‘Policy Consultation Body for Higher Education ODA’ which will make the link possible.

In Chapter V, the status of higher education ODA by international organizations and advanced donor countries was analyzed. First, in order to grasp the status higher education ODA of international organizations, every higher education ODA project by international organizations in the last 10 years were analyzed. From 2009 to 2018, the UN agencies, Development Banks, and Regional and Economic Cooperation Organizations carried out a total of 423 ODA projects in the field of higher education, with the number of projects steadily increasing to about threefold in the span of 10 years. The areas were concentrated in Africa, Asia and Latin America. As for project types, action projects that could provide immediate help to developing countries took of the majority, and the most common project content was system building. In terms of academic classification,

there were far more projects related to engineering, natural sciences, and medicine, while those related to social sciences and humanities were minimal. In terms of finance, there were many cases of various institutions and countries jointly organizing, and the most common type of support was grant. Korea participated in 38 projects as a donor country, and it was found Korea participated in the highest number of projects as a donor country. International organizations also had a high proportion of projects dedicated to improving access to higher education, and relatively little projects to improve quality or sustainability were implemented.

Subsequently, the current state of higher education ODA which has been implemented by advanced donor countries (Japan, the Netherlands, Australia and the United States) was analyzed. In the case of Japan, higher education ODA in developing countries was closely linked with support for domestic universities and was contributing to fostering related professionals by working with various cooperative bodies. By focusing on the field of engineering, Japan showed a comparative advantage in the engineering field. In the Netherlands, ODA resources in the education sector have been decreasing in recent years, but nevertheless education has been adopted as a cross-sectoral issue, using strategies to enhance the impact of higher education in overall ODA activities. Its distinctive feature is to increase the effectiveness by strengthening the capacity of ODA experts in developing countries directly through professional education internationalization organizations or institutions. Australia has a regional focus on the Indo-Pacific region to increase the impact of higher education, and while traditionally scholarship support has been faithfully fulfilled, it is important to note that both the scholarships for foreigners invited by the government (inbound) and support for Australian students studying abroad in the Indo-Pacific region (outbound) have been approached as a part of the same framework. Moreover, the fact that improving youth unemployment is Australia's priority in

supporting higher education in developing countries also has big implications. Finally, in the case of the United States, by implementing ODA in terms of strengthening education, research, and social service functions, it supports the developing countries' higher education to contribute and lead to industrial development and community development. Additionally, another big characteristic is that the US supports the development of partnerships and networks that US universities and research institutes participate in when it comes to ODA, all of which have the purpose of pursuing national interests in consideration of its diplomatic and security strategies, economic cooperation, and the role of higher education institutions. These countries have in common that they simultaneously pursue their own interests in their ODA projects. This is in line with the direction of Korea's development cooperation in pursuing ODA from a “win-win” perspective, and therefore it is necessary to pay attention to the ODA performance of these advanced donor countries.

As demonstrated above, the “Higher Education ODA Action Strategies for Achieving SDGs” were derived based on the analysis of this study and the main issues of higher education emphasized in the SDG education goals. In order to derive action strategies,

A SWOT analysis were carried out to carefully analyze Korea's strengths, weaknesses, opportunities for the external environment, and threats for each of the three issues of improving access, quality and sustainability of higher education highlighted in the SDGs. The results of the SWOT analysis are summarized as follows.

First is the ODA action strategy for improving access to higher education. The S-O strategy of supporting technology-oriented universities and the spread of online education considering Korea's strengths and external opportunities, and the W-O strategy of strengthening the development cooperation considering Korea's

weaknesses and external opportunities were proposed. Moreover, supporting specialized universities and women's colleges as a S-T strategy to take advantage of Korea's strengths and to respond to external threats, and expanding support for the vulnerable social groups as a W-T strategy to supplement Korea's weaknesses and to respond to external threats were proposed.

Second is the ODA action strategy for improving the quality of higher education. The S-O strategy to strengthen teaching and research capabilities and to improve educational services using ICT, and the W-O strategy to promote win-win ODA and secure professional manpower were proposed. Furthermore, the S-T strategy to increase support for the field of science and technology, and the W-T strategy to enhance the effectiveness of ODA projects were proposed.

Third is the ODA strategy for improving the sustainability of higher education. The S-O strategy of activation of the cooperation between industry-university and the W-O strategy to foster experts and the efficiency of development cooperation were proposed. The S-T strategy to expand employment opportunities and jointly respond to future society, and the W-T strategy to strengthen public-private cooperation were proposed.

■ Keywords: Sustainable Development Goals (SDGs), Higher Education, Development Cooperation, ODA, Action Strategies