ABSTRACT

Research on Cooperation and Development of
Education, Science and Technology
between Korea and Developing Countries in Africa

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1. Research Objectives

With the support of the National Research Council for Economics, Humanities and Social Sciences(NRCS), the research on cooperation and development of education, science and technology was carried out by the Korean Educational Development Institute (KEDI). As part of a three year research program, the initial year of research was undertaken in order to explore educational policy issues within Africa under the title, 'Research on Cooperation and Development of Education, Science and Technology between Korea and Developing Countries in Africa'. It examins the current status of

cooperation and development in education, science and technology between Korea and the developing countries in Africa based on the division of the five regions, explore the critical issues and suggest policy recommendation. The fist year of research will enable mid-long term cooperative strategies and action plans which will be developed in the second year of the research. The third year will focuss on the development of pilot program modules .

For making more appropriate policy recommendations for this research, Africa was divided into five main regions which consist of Northern African Region, Western African Region, Eastern African Region, Central Africa Region and Southern African Region. Based on this regional sorting, five Korean strategic partner countries were carefully selected: one partner country from each region of the five regions. Those selected were Egypt, Nigeria, Ethiopia, Democratic Republic of Congo and Tanzania.

The research objectives are as follows. First, the paper aims to provide basic background data and information on the current statues of cooperation and development in education, science and technology between Korea and the selected five core strategic developing partner countries in Africa on the basis of five regions due to a lack of published comprehensive reports on the subject. There for the data and information gathered in the first year of research will act as the foundation for enhancing effective cooperation between Korea and African regions and African countries.

Second, the paper examines the current status of education, science and technology in the five African Regions and the selected five countries. The paper examines available information and data on the education sector of Korea's Overseas Development Assistance (ODA) on five African regions and also chosen five countries has it been collected and analysed.

Third, regional and country specific issues were identified and appropriate cooperation and development issues were suggested.

Fourth, based on the conclusions drawn, the research will provide policy recommendations for strengthening cooperation and development between Korean and the five selected developing countries in Africa in the education , science and technology sector.

2. Research Methods

The research information was collected through a-year- long intensive literature review, expert meetings, in-dept interviews, field research and international workshops.

For the literature review, information was collected from international institutions (e.g. the World Bank, African Development Bank, United Nations Educational Social Cultural Organization and Organization for Economic Co-operation and Development), African regional communities (e.g. Association for Development of Education in Africa, UNESCO International Institute for Capacity Building in Africa, African Union Institute for Policy and Economic Development), documents from the Korean and other governments as well as official reports from research institutes under the National Research Council for Economics, Humanities and Social Sciences (NRCS).

The collected data and information was analyzed using the SWOT analysis method and 'Issues Findings and Development Model for Cooperation'. The SWOT analysis method was used in order to analyse the current statues of cooperation and development of education, science and technology between Korea and the selected developing countries in Africa. 'Issues Findings and Development Model for Cooperation' method was applied in order to identify regional and country-level policy issues and policies in the areas of Education, Science and Technology from Africa.

3. Policy Recommendation

1) Basic Directions

The   basic recommended directions for education, science and technology cooperation and development are as follows.

First, cooperation and development for educational, science and technology should be in accord with international educational development goals and with international major indicators for educational development.

Second, programs for educational, science technological cooperation and development should be in line with regional and country —level issues.

Third, Korea's cooperation and development toward Africa should be carried out as a part of the Knowledge Sharing Program (KSP) that suggest to share Korean experiences in educational, science and technological development with African countries

Fourth, assistance in building educational infrastructure needs to continue to be provided in African countries and their development in the areas of education, science and technology. Current cooperation should be expanded and improved at a national policy level and more appropriate modalities need to be investigated and be carried out.

2) Policy Recommendation for Korea and Regional Cooperation

Common Principals

○ In order to improve regional cooperation, common principal strategies that are applied in all the selected countries from five regions are as follows.

○ Take account of geographical situation. Make the best use of regional and local human resources

○ Carry out cooperation programs with regional communities (regional

economic community) Ultimately, regional cooperation programs between korea and African regions can contribute to regional integration and development

○ Closely work with international institutes when delivering international cooperation and development programs. Participation of international institutes will ensure more financial substantiality and there for deliver more effective programs.

○ Identify appropriate cooperation programs that can reduce disparities and create synergy within the region. Thus, offering an opportunity for corporation between African countries lies in scientific and technological development as the gap is likely to be relatively small.

○ Programs should benefit the countries in the regions. In order to ensure the substantiality of programs, preparations of mid-long term strategies will be critical. The World Bank Country Assistance (CAS) model is applicable in developing regional cooperation models.

Regional Level Strategies

In order to strengthen cooperation between Africa and Korea more effective, regional level strategies are highlighted for the five regions in Africa.

First, cooperation with the Northern African region should take in to account geographical distance between the African continent and korea. In this regards, cooperation with African regional institutes (e.g. AfDB, NEPAD, ADEA) as well as international institutes (e.g. UNESCO and World Bank) which have already established networks within the region will be effective in the mid-long term perspective. In particular, providing training programs for high level policy and decision makers, delivering programs that were suggested for mid-long term cooperaton and development strategies and establishing a regional center for Korea and North African cooperation and development.

Second, for the Western African Region, in-depth educational research on education and science and technology needs to be conducted at both on a regional and country-level. By establishing a regional center for Korea and Western African cooperation and development, better quality information can be collected and there for the building a stronger partnership between Korea and the Western African region. Not only international institutes such as AU , AfDB but also ADEA and various NGOs should participate jointly in seeking to enhance cooperation. Students exchange programs and dispatching researchers as a way of sharing different developmental experiences that need to be strengthened.

Third, cooperation with the Eastern African Region can be more effective in finding more recipient-oriented issues while working with African regional institutes. Regional Cooperation can enhance South-South Cooperation (or Triangle Cooperation) and thus it can contribute to the increase in aid effectiveness. Educational cooperation and development programs should be related to the Economic and agricultural sector programs as well as focus on providing further teacher education and training in order to improve education quality.

Fourth, with the Central African Region, mid-long term cooperation through the formation of the international alliances for establishing and implementing Korean Sector Wide Approaches (SWAPs) program is required. Cooperation with African regional institutes as well as international institutes will be critical in identifying appropriate cooperation issues. In Central African Region, assistance should go first to the areas of human resource development, TVET, educational finance. Also, resource based economy and technical human resource development in Central African Region, teacher education for improving education quality, promoting national reconstruction related education program under the post-conflict situation.

Fifth, in the Southern African Region, open education, systemic capacity enhancement for long distance education program is currently being implemented. In recent years, educational policy programs which can improve

quality in education training programs for TVET, human resource development policy received great attention. In Southern Africa Development Coopreation (SADC), improving adult literacy, primary and secondary school enrollment and increasing higher education enrollment which is currently below 50%. Thus, sharing the Korean village movement program, lifelong learning programs for adults and providing training programs for teachers and education experts in the Southern African Region are urgently needed.

3) Policy Recommendation for Cooperation Between Korea and Five Developing Countries in Africa

The policy recommendation for improving cooperation between Korea an five developing countries is listed as below. The recommendation is developed based on SWOT analysis that was conducted in order to better understand the in current African developing countries' with regards to their education and development situation

A. Policy Recommendation for Cooperation Between Korea and Egypt

- Developing a mid-long strategy is critical in order to ensure stable program delivery
- "Triangle Cooperaton" within the region is needed when considering the geographical distance between Egypt and Korea
- Promote Korea's development experiences in education, science and technology as a part of knowledge Sharing program(KSP)
- Develop mid-long term Korean assistance to Egypt's Educational development
- Carry out policy consulting programs in order to improve the quality of education in Egypt
- Operate training programs for high level policy and decision makers Provide assistance in establishing an education policy institute for Egyptian

educational policy development

- Assist in establishing a TVET cluster center in Egypt.
- Assist in fostering talents in higher education for developing the fields of science and technology in Egypt

B. Policy Recommendation for Cooperation Between Korea and Nigeria

- Consider ways of increasing education opportunities
- Need for cooperations that lessens disparities between regions and genders
- Need for cooperaton in introducing a standardized curriculum and evaluation system
- Assist in effective adult literacy and functional literacy programs
- Expand educational opportunities for the nomadic population as a part of long-distance education system
- Assist in civil education that encourages civic awareness (such as linking health education, economy education, peace education, multi-cultural education)
- Develop educational programs that have a close link with TVET
- Seek ways of improving private schools within the framework of the public education system
- Dispatch specialists and teachers in order to prepare the promotional program and policy for math and science
- Assist in stabilizing the National Education Management Information System (NEMIS)
- Strengthen teacher education and building teachers' capacity

C. Policy Recommendation for Cooperation Between Korea and Ethiopia

- Develop cooperation strategies with consideration of social an cultural differences between the two countries
- Strengthen the educational network and establish a structure for cooperation

and Carry out sustainable education development programs as a form of KSP

- Carry out Public-Private Partnership (PPP) Programs
- Carry out community based educational development by applying Public-Private Partnership Programs
- Need for adopting the contents of agriculture into the educational cooperation programs
- Consider educational cooperation programs for improving teachers quality
- Develope Information Communication and Technology (ICT) -in-education program
- Consider establishing Special Zone for lifelong-education that promotes adult education and early childhood education

D. Policy Recommendation for Cooperation Between Korea and DR Congo

- In order to successfully achieve successful compulsory education in the field of education, training and consulting programs should be implemented
- Implement a teacher quality enhancement program such as the teacher training program in Korea or dispatching experts
- Prepare active plans for accepting more undergraduates and postgraduates from DR Congo to Korea
- Provide consultation on the national educational fiance management system and provide loans
- Supply educational support materials to marginalized areas such as in rural areas and the Eastern region of the Congo and support educational infrastructure such as the building of school facilities.
- Implement a textbook production (printing) and a distribution program
- Popularize 'Korean National Five Year Plan for Achieving Compulsory Education' which was successfully planned and implemented after the Korean War , in DR Congo which requirers education for post-conflict reconstruction program

- Introduce and share Korea's experience of TVET in the secondary school level
- Reform the educational cooperation program for improving teachers quality by supporting teacher policy reform
- For mid-long term educational reform, support educational services areas such as educational programs and fostering talents programs

E. Policy Recommendation for Cooperation Between Korea and Tanzania

- Plan (setup) an educational cooperation policy committee on a regular basis
- Seek to strengthen the network between DR Congo and international educational institutes
- Introduce Public-Private Partnership programs
- Need for building infrastructure programs in order to reduce disparities in the primary education
- Urgent need for programs that promote continued education for secondary school education
- Support for establishment of a Women's University
- Cooperation for TVET by transferring appropriate technologies
- Provide more educational opportunities for marginalized peoples by strengthening ICT-in-education programs