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Pd PO-AAD-459-61

NON-CAPITAL PROJECT PAPER (PROP)

EDUCATION

Country: Korea Project No.: 489-11-690-884

Submission Date: 4/15/71 Original X

Project Title: Education Development

U.S. Obligation Span: FY 72 through FY 76

Physical Implementation Span: FY 72 through FY 78

Gross Life-of-Project Financial Requirements:

U.S. Dollars:	\$1,489,000
Ed. Sector Loan	6,500,000
*Cooperating Country Cash Contribution: (in \$ equivalent)	2,000,000
Local Currency Financing (in \$ equivalent)	486,000
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Total	\$10,475,000

\*Estimated portions of ROKG current operating costs directly related to project implementation.

EDUCATION DEVELOPMENT  
(PROP)  
USAID/KOREA

I. Summary Description

A. Background Information

The Republic of South Korea is about the size of the State of Indiana and it has more than 31 million people who are surrounded on the east, west and south by seas, and by the Demilitarized Zone to the north. It is a rapidly developing nation with all the opportunities and ills associated with technological change, industrialization, rapid urbanization and a transition from traditional and relatively stable values to new, uncertain, and tentative ones.

Korean education, starting from Independence time in 1945, and extending for two decades to 1965, (except for the war period 1950-53) was characterized by an explosive and uncharted growth of quantitative aspects of all levels of education--largely based upon a transference of educational forms and structures from the U.S. At the end of the Korean War in 1953, Korea's educational system was in a shambles. Schools had been destroyed and teaching staffs scattered. The ROKG started to rebuild the nation's educational system, again quantitatively, with only token consideration given to the philosophy, purposes, and/or substance of education as it relates to development of Korean society. Efforts were focused on constructing schools, training more teachers, and enrolling as many students as possible. A growing financial investment has thus been made without adequate efforts to determine how much the nation can afford to spend for education.

While Koreans have worked hard in achieving quantitative improvements, it has become increasingly clear to both Korean educators and U.S. educational advisors that Korea must now emphasize qualitative improvements as well. There is a growing need not only to extend educational opportunities beyond primary school but also to improve the quality of education by making it more relevant to the needs of a rapidly developing and changing economy.

Korea's gross national product (GNP) has expanded from \$3.0 billion in 1960 to \$6.6 billion in 1969 (1968 prices); in the same period, per capita income grew from \$121 to \$212, while exports went from \$20 million to \$658 million. During the years 1969 and 1970, the Korean economy continued to grow vigorously, as indicated by GNP growth rates of 15.9% and 9.7%, industrial production growing 21.3% and 16.7%, and commodity exports increasing 34.5% and 34.9%, respectively.

The Korean economy has experienced a high level of continuing growth. There seems to be general agreement that this growth will continue. In pure economic terms, the quantity of schools may be sufficient, but the quality of human resources being produced by the existing primary, middle, and high schools and by higher education, is not of the caliber required to meet the nation's manpower needs. These manpower deficiencies are more qualitative than quantitative. It is not unusual at the present time for a job holder to have an education which is largely unrelated to the function performed. Furthermore, manpower wastes through over-qualification can be observed already and it is anticipated that the size of this problem will increase.

The educational goals that characterize the educational systems are generally restricted to the conventional academic areas, and the present vocational and technical training programs are not effectively serving the purposes for which they have been formed. The Korean educational system cannot in its present form meet these needs through simple expansion or minor alternations of the existing system. In view of the increasing number of students, in view of the need to improve the quality of education, and in view of the fact that the national budget devoted to education has reached a reasonable proportion of the available resources, (about 19%) careful planning must be continued and extraordinary educational innovations must be undertaken. The magnitude of needs is so great that conventional and traditional approaches will not suffice.

Since the mid-60's, leaders in Korean education have been stressing the need for comprehensive and coordinated planning. They have recognized the unusual growth of all sectors of education with reference to quantitative aspects and have become conscious that all too little attention has been devoted to the development of quality. A major problem has been that of how to organize and fully exploit the leadership power for planning purposes and how to actually carry on long-range planning for improvement in the midst of the very demanding

work schedules related to the on-going daily requirements of operating the massive educational establishment. They have further recognized the need for intensive research and experimentation relating to both the economics of education, systems management, and the methodologies of instruction.

#### B. Program Goals

There are two major program or sector goals:

1. To further support and institutionalize "long-range educational planning" as a continuing process through which to achieve educational change and development.
2. To assist in modifying present "educational systems" to provide higher quality instruction to greater numbers of students within a framework of national needs and resources.

#### C. Mission Inputs

The Mission contemplates several types of inputs of U.S. assistance to support the ROKG in their attempt to achieve the goals as stated. A brief description of these inputs follows:

##### I. Direct-Hire Officer

To coordinate Mission efforts in this program in the initial phase, the services of one direct-hire officer will be utilized. Not only will this officer be required to provide advice and guidance to senior ROKG officials, but he will maintain professional liaison with senior educational professionals across the entire complex of educational institutions in Korea. He will serve the Mission in defining, programming, and monitoring the other essential inputs in support of this program.

##### 2. Technical Advisory Assistance

The Mission will provide a variety of U.S. expertise to the ROK to assist both in long-range planning and in specific educational experimentation and innovation. These services will be provided through both long-term and short-term contracts with responsible U.S. institutions and/or TDY PASA expertise available from the U.S. Government.

### 3. Participant Training

In developing responsible Koreans for research or planning or for specific program implementation, the Mission will provide a series of participant training opportunities both long-term and short-term in the U.S. and third countries as needed.

### 4. Trust Fund

The Mission currently conducts trust fund research for the purpose of deriving basic data relating to educational change and improvement and will continue to do so throughout the life of this project. In addition to research, trust fund resources will be utilized for conferences, seminars, and logistic support types of activities that contribute to the achievement of the goals.

### 5. Education Sector Loan

The Mission is prepared, early in the life of this program, to recommend a sector loan of approximately \$6.5 million to support a pilot project for educational innovation. It is contemplated that this experimentation would follow closely the recommendations contained in the current report by the Florida State University study team which was funded under the terminating Education Policy and Planning Project.

SUMMARY OF FINANCING  
U.S. Financing in Dollars \$(000)

<u>FY</u>	<u>Direct Hire Education Officer</u>	<u>Institutional Contracts</u>	<u>Participants</u>	<u>Total</u>
72	40	\$175	\$ 60	\$275
73	40	175	100	315
74	40	200	125	365
75	40	160	125	315
76	<u>40</u>	<u>140</u>	<u>39</u>	<u>219</u>
<b>Total</b>	<b>200</b>	<b>840</b>	<b>449</b>	<b>1,489</b>

LOCAL CURRENCY FINANCING  
(W Million)

<u>CY</u>	<u>Direct Hire</u>	<u>Contract</u>	<u>Research</u>	<u>Total (W Million)</u>	<u>\$ Total(000s) (W 370 = \$ 1)</u>
72		8	25	33	89
73	3	10	30	43	116
74	3	10	30	43	116
75	3	10	30	43	116
76	<u>3</u>	<u>5</u>	<u>10</u>	<u>18</u>	<u>49</u>
<b>Total</b>	<b>12</b>	<b>43</b>	<b>125</b>	<b>180</b>	<b>486</b>

## II. Educational Setting in Korea

### A. Primary - Middle School - Secondary Education

In 1969, more than 7,632,200 children and youth were enrolled in 9,478 schools. More than 158,300 teachers manned the classrooms, and coped with class sizes of 60 to 70 and above. The nation invests approximately 17% of its national budget (3.5% of its GNP) in education, exclusive of parent support. More than 70% of the children between the ages of 6 and 17 are in school, and the literacy rate is above 90%.

These schools in South Korea are organized into three levels: the primary school (grades K-6; ages 5-11), the middle school (grades 7-9; ages 12-14) the high school (grades 10-12; ages 15-17).

Education is compulsory through 6th grade (ages 6-11). Education is not entirely free, for tuition fees and other fees must be paid--except for the very, very poor--at the secondary level, and to a lesser degree, at the primary level. The school year is divided into two terms as follows: March 1 through July 25, and September 1 through February 28. Children who are six are admitted to the school year if their birthdays fall between January 1 and March 1, otherwise they are admitted the following March.

The abolition of entrance examinations for middle schools is taking place in its third and final stage in this school year, (1971) and Korean education will become practically compulsory from first grade through the three years of middle school, a generalized nine-year program.

There are many private schools in South Korea and these account for 1.6% of the number of schools at the primary level, 45.1% at the middle school level, 46.9% at the high school level.

There is tremendous social demand for education in Korea and out of this demand for education comes the willingness on the part of parents to pay a significant annual sum--over and beyond what the state provides through public funds--for the education of each of their children.

The Korean school system is strongly academically oriented. Its clients wish to become members of a professional white-collar, university elite. While its leaders have emphasized general education and increased enrollments, the basic orientation is still pyramidal and academic.

Korean educators are justly proud of their quantitative accomplishments. Leaders say that now they want to improve the quality of the educational process and that of the end "product" as it relates to social and economic development of the nation.

#### B. Higher Education

In 1969, Korean colleges and universities numbered 68, of which 15 were national or public institutions and 53 were private. There were 132,930 students enrolled in these schools and 77,160 faculty members. Graduate schools numbered 60 (19 national and 41 private). Graduate students totaled 6,155 and graduate school faculty, 287.

In addition to the above, Korea also offers higher education at junior technical colleges (23), junior colleges (20), junior teachers colleges and miscellaneous schools (44).

The explosive growth of the quantity of higher education in both the public and private sectors has been accompanied by the emergence, and Korean recognition, of the problems they now face in having quality higher educational programs.

Severe overcrowding, teacher shortages, outmoded and unbalanced curricula, lack of material and equipment--all have combined to produce instruction of generally low quality and limited relevance. Of the large number of institutions of higher learning, a very few can claim to measure up to standards for higher education commonly accepted by advanced countries.

Many Koreans have had to supplement their Korean education with training overseas. Each year a substantial number of college graduates have found it necessary to go abroad to continue their studies because of the lack of quality graduate and undergraduate programs within Korea.

Apart from the economic loss of the "brain drain," foreign training has not always proven well adapted to Korean country needs. Very often such training has been oriented toward the conditions of the developed nations - where technology, organizational patterns and management practices are quite different. Thus, the answer to technical manpower problems of the countries like Korea is not solely the return of their overseas students and technicians. Improved systems of training within the developing country itself - adapted to local conditions - is also required.

Korean leaders are now requesting assistance in taking an in-depth and systematic look at the problems they face in developing quality higher educational programs that are relevant to both their national needs and their national resources.

### C. Educational Planning

The Ministry of Education (MOE) in Korea is empowered by law to make educational policy and to supervise, control and guide the schools of the nation. This responsibility is in the hands of the Minister of Education who is one of the members of the president's cabinet and is the head of the Ministry. Educational policy is made by the Ministry of Education, and the Ministry also spells out the guidelines for curriculum, tuition fees, parent association fees, and teacher qualifications, etc.

Ministry of Education officials charged with the day to day pressures of managing a giant educational complex are concerned that they need a planning resource related to - but not responsible for - the administrative emergencies of educational development.

They, and other leaders, have recognized that an essential element in Korea's attempt to improve the quality of its education is a well conceived and institutionalized long-range planning effort that would give proper direction and purpose to the nation's educational programs. In November, 1968, the ROKG established a Council for Long-Range Educational Planning. This Council, responsible to the Prime Minister and the Minister of Education, with the active participation of leading specialists in education and other fields, has completed the first draft of a 15-year Long-Range Educational Plan. Immediate goals of this plan are as follows:

- (1) To raise the internal efficiency of education by modernizing study and teaching activities.
- (2) To raise the external productivity of education by satisfying the manpower demand as well as educational demand of the nation.
- (3) To increase the efficiency of educational supporting structure, such as educational administration and finance.
- (4) To realize a "well-planned educational system by strengthening the planning ability in education."

This first plan constitutes a useful tool for educational guidance and direction, and provides a framework for the intensive development of five-year planning consistent with other national planning. The Council has drawn on the best of Korean leadership and has utilized the work of American specialists in its development.

As presently constituted, however, the major, long-range planning organization of the ROKG is quite tenuous, without permanent status, and with only limited influence in the Korean power structure.

There is a lack of linkage between the Council's planning efforts and the ability of the Ministry of Education to fully utilize these resources. Effective planning and problem solving must be so organized to bring the two elements together. Korean long-range planning must better utilize Korean research capability, and must find means of assisting the Ministry of Education not only in developing options but also in seeing the consequences of actions in relation to the options that are open to them.

What Korea has then, to date, is some high level planning machinery, a long term plan, a precedent for committees and task forces to work on crucial problems, a substantial number of Koreans with planning experience, and a demonstrated interest within the MOE for finding ways to upgrade its planning capability.

At the present time planning and development efforts in Korean education are widely scattered, under financed, and not well connected to where the action is. What is needed is an institutionalization of planning that would gather these scattered efforts together in a critical mass capable of continuously reviewing Korean educational theory and practice. A country like Korea, with an emerging, sound infrastructure in education, making a massive social overhead investment in education must further develop and utilize a planning organization as an institutional process for achieving national goals, both cultural and economic.

### III. Strategy

#### A. For Long-Range Educational Planning

As previously stated, long-range educational planning in Korea has just begun. Efforts are widely scattered, under financed, and not always related to the decision-making process. This project proposes to build on present efforts to institutionalize an educational planning process in the ROK that will achieve the following:

1. Long-Range planning efforts and agencies located near the center of the decision-making organization in the MOE. The personnel in Office of Planning and Management in the MOE serve as the "bureaucratic" resource center for educational decision-making. In order to know the problems and to act as a resource to this office, any effective long-range planning organization must be closely related to and coordinated with these responsible officials.

2. Institutionalized educational planning that focuses on the most pressing of educational problems and seeks breakthroughs in educational thought and practice. At present Korean educational planning is dealing with emergency problems on a crash basis and from a segmented viewpoint. It is not yet able to do so from a reserve of planning research, information and experience. This capability must now be developed in such a way that problems are viewed in the perspective of the total educational system and effort.

3. Planning activities that produce well conceived and realistic options. Confronted with pressing educational problems Korean Officials need to see what the available options are and what the consequences of each of these options would likely be. This component of planning is not yet developed.

In addition, the planning office should be capable of handling ad hoc assignments, with reasonable intelligence and on short notice, when officials are under the gun to defend budgets and programs.

4. Planning that seeks intellectual inputs from outside the official educational establishment. The purpose of such involvement is to let the working level people in education see new, and hopefully larger, points of view, and, at the same time to inform outsiders about the very practical problems confronted by those who operate the establishment. There needs to be effective linkage between the establishment "bureaucrats" and the outside "intellectuals", between the planners and the decision makers, between planners and school people. At the present time these linkages exist only on an informal plane. They need strengthening.

5. A planning organization that will act as a training system for educational leaders. Educational development is strongest when supported by competent leadership, and planning activity itself is one way of developing leadership. The total educational system and its requirements must be considered. The interrelations of the levels and functions of education must be reconciled. The relationship of education to other social and economic forces cannot be ignored. Dealing with matters like these is itself an education about education.

Through an AID financed contract with the MUCIA the Ministry is receiving a continuity of advice on the educational planning process. This advice, and Korean efforts in relation to it, has already resulted in a compressive sector study of primary-middle school - and secondary level education. Responsible ROKG officials are now prepared to undertake such a study of Higher Education. These studies were and will be designed to examine needs, alternative directions and specific programs for Korean consideration. Their end result will be policy formulation as well as program determinations and in the process will achieve the establishment of planning institutions useful to and supported by Koreans.

B. For Educational Experimentation

During FY 70 a contract with FSU was funded to recruit a team of experts who would come to Korea to study the present educational program (Grades 1-12) and to make recommendations concerning needed educational reform. The study team spent three months in the Republic of Korea gathering information and data about the educational system, the economy, the nation's needs and wants for its educational programs and the resources available for potential improvement of the system. The primary goal of this study was to develop useful and meaningful strategies for educational improvement throughout the Korean education system. Specifically the question addressed was, "Is it possible to provide a better, more relevant education for more Korean youngsters at a lower unit cost, and at a total cost not greater than the nation can afford?"

The team agreed that the highest priorities for extraordinary change and development for Korea for the next five years should be the elementary-middle school level. They recommended a different kind of elementary-middle school that would provide an educational program of demonstrably higher quality and relevance for all age-eligible Korean youngsters. They predicted that this program once developed and installed in the nation's schools would not only be cost effective, but that it would in fact cost less per student to operate than is presently the case.

The new elementary-middle school proposed by the study team would involve a number of changes from the present system. These include:

1. Changing the size of instructional units

It was proposed that the students be organized into "instructional units" of 300 students with the average sized Korean school having three such units. Each 300 student instructional

unit would become the responsibility of a four person teaching team. This would raise the student-teacher ratio from the present 55-1 to 75-1. It is proposed that the instructional unit (with 300 students and 4 staff members) will have permanently assigned to it six conventional classrooms. This would make an average student to classroom ratio of 50-1, down from the present 66-1. To provide sufficient space, it was recommended that double shift basis be adopted for this level education.

## 2. Adopting a system of individualized instruction

The basic instructional resource for that portion of the curriculum to be individualized is a "student-learning unit," which will be prepared in modular and overlapping form and will be packaged for ease of storage and retrieval by students. These units would be sufficiently durable to have a use-life of four to five years.

Because of the self-study nature of much of the planned educational materials, the students will be able to do more learning in their homes or out of school. It would be possible to shorten the time in school for students without reducing learning achievement.

## 3. Differentiating in the use of professional staff

The teaching staff would be differentiated in a manner that calls for professional staff with differentiated specialties. This should provide for a better means of having the full range of competencies available in the new instructional unit and make it possible to allocate different responsibilities to the individual professionals making up the team.

## 4. Developing a system of instructional Radio and Television

A national educational radio and television distribution system would be developed which would continuously transmit instructional programs during the school day. It is estimated that one and one-half to two hours of television instruction would be received by each student each day, comprising about one-third of the student's instructional day.

Radio instruction would be used in the context of the individualized program and be one of the instructional resources to which the student is directed.

That part of education about which Korean leaders, both governmental and educational invariably expressed the greatest concern was vocational preparation. The study team strongly recommended the addition a substantial offering in preoccupational preparation at both the primary and middle school levels. The learning of the specific technical job skills needed in Korea's economy can then be readily acquired on a minimum training time basis. The graduates of the proposed nine year curriculum will have solid academic preparation, at least comparable to today's Korea high school graduates and will also be well grounded in the general fundamentals and prerequisites to specific job training.

The system modifications recommended by the study team, while not having been built and tried out in total anywhere in the world, do consist of components which have been used and for which development and operating cost data are available.

Because of the importance of knowing with precision the per student operating costs and the yield in terms of assessable student learning, this project proposes to inaugurate the recommendations with a carefully developed five year pilot experiment. This would provide the Korean Government with a decision point before committing itself to a fullscale, nationwide implementation effort.

It is proposed that the pilot project would include the development of a complete new system to have the features outlined and that it will be installed initially in the schools of only a single city. The community chosen will be as representative as possible.

Since the pilot project will be designed to provide an empirical data base for a government decision on diffusion of the new system, the pilot school system will not have any unique advantages nor disadvantages that would effect the potential educational outcomes.

This project will propose that the Korean government charter a Korean Educational Development Laboratory (KEDL) in the MOE whose primary function will be planned and systematic educational reform in this pilot school system.

Since many new programs and products will be required with the introduction of individualized instruction, student learning units, instructional radio and television and differentiated staff, a proposed AID Development Loan of \$6.5 million will be made available to the ROKG in FY 72 to support the following estimated budget:

Estimated Five Year Development Costs for Pilot Project -  
(Based on 100,000 Student School System)

Software Development	\$5,475,000
Teacher Training	35,000
Television Monitors and Antennas	40,000
Transistor Radios	10,000
TV Originating Source	500,000
Professional Resource Development (KEDL)	<u>440,000</u>
TOTAL	\$6,500,000

IV. Planned Targets, Results and Outputs

A. Fc Long-Range Educational Planning

FY 1972 - Target

A comprehensive U.S.-Korean joint study of the present status of Higher Education in Korea in terms of organization, systems of instruction, student selection, guidance and counseling, faculty appointments, assignment and development, relationship to secondary education, and problems of system development.

FY 1972 Results and Outputs

- (1) Recommended development plans for a system of higher education designed to meet Korean needs.
- (2) Recommended "standards" for higher education and a recommended system of accreditation that will lend itself to achieving those standards.

**Beyond FY 72 Targets and Results**

The establishment of a functioning planning organization for the development of quality programs in higher education consonant with Korean needs and fiscal resources.

**B. For Educational Experimentation****FY 72 Target**

- (1) The establishment of a Korean Educational Development Laboratory (KEDL) to design educational reform for primary and secondary education.
- (2) To develop and finance a pilot study (five years) in which the reforms recommended by the KEDL can be tested in an environment large enough to enable Korean Educational Leadership to decide to adopt as a national program.

**FY 72 Results and Outputs**

- (1) An established KEDL functioning as an official research and advisory organ of the MOE.
- (2) A detailed 5-year pilot experimentation fully designed and financed for application in a selected community with a minimum of 100,000 students.

**Beyond FY 72 - Targets, Results and Outputs**

A completed experimental program that will result in a reform of the total system of primary - middle school - secondary schools throughout Korea. Year by year targets, results and outputs beyond FY 72 can only be determined in terms of the programs defined during FY 72. The ultimate objective is the measurable improvement of learning for more Korean boys and girls at less dollar cost than is presently expended and within the resources of the Korean economy.

**V. Course of Action****A. For Long Range Educational Planning**

- (1) During FY 72 the Mission will provide the Ministry of Education full time contract adviser for the Bureau of Higher Education. This adviser (funded in FY '71), working with MOE officials, will assist in designing a study of the systems and content of higher education (both public and private) in Korea. He will help collect data on all aspects of the study and will, with the advice of the involved Koreans, help select a team of 6-8 short term specialists from the U.S. who will come to Korea for the purposes of reviewing all pertinent data, making further investigations and preparing a report which will recommend a series of actions related to the future improvement and development of higher education in Korea. The recommendations will include, but not be limited to the following:
  - (a) A continuous planning organization for Higher Education Development.
  - (b) Standards for quality higher education and a system of institutional evaluation and accreditation.
  - (c) Government policies for the further support and development of Higher Education.
- (2) Beyond FY 72 the Mission will be prepared to provide both direct hire assistance, contract assistance, and training for Korean leadership in implementing recommendation made by the FY 72 joint study.
- (3) Throughout the project the Mission efforts will be closely coordinated with those of the World Bank and other Bilateral and Multilateral agencies interested in higher education in Korea.

**B. For Educational Experimentation**

- (1) During FY 72 the Mission will respond to an official request of the Ministry of Education and the EPB in procuring the full time services of the Director of the Florida State University Study to assist in establishing the KEDL and in designing the detailed specifications for a pilot experiment embodying the recommendations made in that Study. An extension of the contract for these services was funded in FY 71.
- (2) With data provided by the KEDL, the Mission will formulate the basic information necessary for an estimated \$6.5 million educational sector loan to support the Korean efforts in the 5 year experimental project as defined. Trust fund support for these activities has been programmed.
- (3) Such additional contract assistance and commodity and training elements as are necessary to the successful completion of the pilot experiment will be designed as a part of the loan. In FY 73 the Mission anticipates that it will require additional direct hire assistance and such will be programmed.
- (4) Throughout this project the Mission efforts will be coordinated with those of the World Bank and other Bilateral and Multilateral agencies interested in assisting the development of all or parts of the system of education involved in this educational reform effort.