PROGRAM TO IMPROVE THE QUALITY OF SECONDARY EDUCATION

(PE-0170)

EXECUTIVE SUMMARY

Borrower and guarantor:	Government of Peru	
Executing agency:	Ministry of Education (MED)	
Amount and source:	**First phase:**	
	IDB: OC	US$120 million
	Local:	US$ 80 million
	Total:	US$200 million
	Second phase:	
	IDB: OC	US$100 million
	Local:	US$ 67 million
	Total:	US$167 million
Financial terms and conditions:	Amortization period:	25 years
	Disbursement period, first phase:	3 years
	Interest rate:	variable
	Inspection and supervision:	1%
	Credit fee:	0.75%
	Currency:	United States dollars under the Single Currency Facility

Objectives: The objective of the program is to improve the quality of secondary education and to increase the educational system's relevance and linkage to the labor market. Its specific objectives are to: (a) support the implementation of a new curriculum aimed at the development of competencies; (b) bolster student learning by improving educational inputs and instructional approaches in the classroom; (c) strengthen school management; (d) support the first stage of implementation of a new level of education (the *bachillerato* or high school); and (e) support the development of a pilot plan for professional training under a new framework for institutional management.

Description: In view of the complexity and innovative nature of several of the activities included in the program, the Bank will take a multi-phase lending approach. The proposed program was conceived and reviewed as a comprehensive operation that will be implemented in two three-year phases. Each phase will include activities to improve secondary education and strengthen educational institutions. Support for the high school implementation and pilot professional training center projects will be limited to the first stage of the program, since they will have to undergo the necessary impact and performance evaluations before the scope and features of their eventual expansion can be determined. Once 75 percent of the loan proceeds have been disbursed and the agreed-upon goals have been met (see Annex II-1), the second loan for US$100 million will be processed.

The program is consistent with the changes being made in basic education at the preschool and primary levels, addressing the main problems that adversely affect the quality of secondary education, such as its weak connection to higher education and the labor market.

At the secondary education level, improvements in quality will be supported by combining the provision of inputs with innovations in teaching methods. Although investments in inputs and instructional approaches are essential to improve the quality of education, they must be supplemented by other measures that will encourage more independent school management. Consequently, the program will provide incentives for innovative designs for management, teaching methods, and curricula. This approach is consistent with the increase in curricular autonomy that will be granted to educational institutions and with governmental plans to decentralize education. In additional, the system of academic achievement assessment will be strengthened.

The first phase of implementing the high school level will be supported as a means of linking graduates of the basic education system with higher education and the labor market. In addition, the newly-created high school level will provide considerable latitude for a diverse supply of both public and private schools and for experimentation with various types of organization and administration. This will encourage the adoption of innovations such as the use of university professors specializing in the various disciplines to be taught and incentive programs that link teacher performance to student achievement.

With regard to vocational training, support will be provided for a pilot program that includes innovative models for school management that link schools with the business community, new financing and resource-allocation arrangements, new ways of recruiting, hiring, and

compensating teachers, and implementation of an accreditation system for providers of such new models.

In accordance with this strategy, the program consists of four components:

Institutional strengthening (US$11 million). This includes: (a) the strengthening of the MED line divisions that will implement the program components; (b) public information and dissemination of the program; (c) the analysis and evaluation system; and (d) program administration.

Improving the quality of secondary education (the last four years of basic education) (US$126.4 million). This includes: the provision of textbooks, teaching materials, and equipment in order to increase the quantity and quality of educational inputs and support the process of curricular reform; teacher training in more participatory learning and administrator training in more autonomous school management; repair, replacement, and/or expansion of infrastructure, with the necessary outfitting and furnishings; introduction of incentives for innovation in secondary schools, in both school management and teaching methods; use of new information technologies, both through expansion of the current educational networks project (EDURED) and experimentation with the International Network of Virtual Schools (IVEN) project; and improvements in the system for assessing academic achievement.

First phase of high school implementation (US$32.3 million). This includes: the provision of teaching materials to help develop the skills and competencies to be taught at this level of education; the training of teachers and coordinators both in the use of new teaching methods and techniques and new curricula; a system for evaluating the high school level and establishing a national examination; the provision of equipment; and the repair, replacement, and/or expansion of infrastructure, including the necessary furnishings.

Pilot vocational training program (US$6.8 million). This includes: the development of innovations in institutional management with the participation of the private sector and the creation of a new regulatory framework for the selection, hiring, compensation, and work of teachers; implementation of an accreditation system for vocational training providers; teacher training; the provision of materials and basic equipment for the pilot training centers; and adjustment of physical infrastructure.

The Bank's country and sector strategy:

The proposed activities are consistent with the Bank's strategy for the social sectors, which promotes higher quality, more relevant education with greater efficiency. The program is also in accord with the Bank's strategy in Peru, which is to promote investment in education as a means of reducing poverty and improving equity and income distribution.

Environmental and social review:

The environmental impact of the program will be minimal; as a result, a social and environmental impact report will not be required. The construction work will consist primarily of repairing existing schools, and all the necessary measures will be taken to prevent or mitigate any adverse impact on the environment, following the respective guidelines prepared by the National Compensation and Development Fund (FONCODES). During the repairs, precautions will be taken in order to avoid the interruption of school activities. The operation's environmental brief was submitted to, and approved by, CESI at its meeting of July 16, 1999. No additional studies were required. From the social point of view, the program will increase the retention rate at the secondary level, which will have a positive effect on the poorest students, who constitute the majority of dropouts. Furthermore, instruction aimed at the development of competencies should increase the potential productivity of graduates from secondary school, high school, and the pilot vocational training centers.

Benefits:

Impact on learning. The introduction of new curricula, school flexibility to adapt a portion of the curricula to local and regional needs, and the combined effect of educational inputs and new teaching methods will all contribute to improving the quality of instruction. In addition, higher quality education will raise the retention rate at the secondary level and reduce the repeater rate.

Impact on school management. Through a competitive fund for innovative teaching and management projects, a pilot incentive program will be launched to motivate the participating schools to redefine their educational mission and to improve school management and teaching methods to achieve it. In both high schools and the pilot vocational training centers, new organizational methods and teacher hiring practices will be used, transforming their profiles, and the participation of the private sector will be increased.

Impact on preparedness for post-secondary education or the labor market. The relevance of what students learn in secondary school, high school, and vocational school will be improved. This will have the beneficial effect of producing individuals who are better prepared and better skilled to become productive members of the workforce.

Economic and social impact. The program activities will: improve the efficiency of secondary education by reducing the dropout and repeater rates; improve the population's level of education, which is associated with increased future income; and better prepare students for entry into the labor market through the development of competencies. This in turn will have a significant social impact, given that the problems of high repeater and dropout rates, and low levels of education mainly occur among students from lower socioeconomic brackets. In addition, the high school level will lead to greater equity among students who choose to enter university.

Risks:

Weakness in certain executing units. The demands of the program may exceed the capacity of certain units responsible for implementing the program's various components. In order to mitigate this risk, the capacity of those units will be strengthened through technical assistance, training, and the design of computer programs and equipment. This support will make it possible to efficiently implement the program activities.

Inconsistent readiness to compete for competitive funds. There is a possible risk of unequal competition among schools in project design, since some may have greater capabilities than others. In order to ensure equal opportunity in this area, the teachers and administrators of all training centers will receive specific training in project design and preparation as part of the training activities.

Changes associated with the high school level. Implementation of the high school level will coincide with the election of a new administration, which may wish to make changes in the conceptualization and scope of this new level of education. This challenge will be addressed through gradual phase-in of the new high school level, with monitoring of its impact and results on an ongoing basis. These measures will be supported by a consensus-building process in civil society, including a public information campaign.

Vocational training centers lacking the capacity to establish links with the private sector. There is the risk that the participating schools may lack the capacity and the flexibility to establish links with the private sector. This risk will be addressed by beginning with the pilot training centers that already have links with the private sector and have expressed greater interest in adopting new methods of teacher recruitment. An evaluation of the impact and results of these pilot experiences will provide information about future vocational training activities. In addition, a public information campaign will be undertaken about the changes that will take place in vocational education, similar to the activities to be carried out for the secondary and high school levels.

Special contractual conditions:

Prior to the first disbursement:

a. Evidence must be submitted that the Program Coordinating Unit, established under Emergency Decree No. 94-94 and amended by Emergency Decree No. 011-97, has been designated in the Ministry of Education for the purpose of implementing the program activities (see paragraph 3.2).

b. Evidence must be submitted that the Operating Regulations of the program have taken effect (see paragraph 3.18).

c. Evidence must be submitted that an agreement has been signed between the MED and the Institute of Educational and Health Infrastructure (INFES) for implementation of the infrastructure and furnishings component (see paragraph 3.12).

Poverty-targeting and social sector classification:

This operation qualifies as a project that promotes social equity, as specified in the key objectives of the Bank's activities described in the report on the Eighth General Increase in Resources (document AB-1704).

Exceptions to Bank policy:

None.

Procurement:

The procurement of goods and the awarding of contracts for construction work and consulting services will be carried out in accordance with the policies of the Bank. International competitive bidding will be required for the procurement of goods and the awarding of contracts for related services in amounts above US$350,000 and for construction contracts in amounts above US$3 million. Ex post reviews will be conducted for the awarding of construction contracts for less than US$300,000, the hiring of consulting firms for less than US$50,000, and the hiring of individual consultants for less than US$10,000.

I. FRAME OF REFERENCE

A. Macroeconomic conditions

1.1 After growing at an average rate of 6.5 percent per year from 1993-1997, the Peruvian economy suffered the effects of three powerful external blows in 1998: (a) El Niño; (b) a reduction in external credit lines, which were an important source of revenue for the Peruvian banking sector; and (c) a fall in the exchange rate, aggravated by the Asian crisis. The effects of El Niño were temporary. As soon as they dissipated, the leading sectors of the economy began to recover. The reduction the short term external credit, however, had more lasting effects. The initial impact was a liquidity crisis in the financial system, which forced banks to restrict lending to businesses, causing a slump in non-primary production. However, forecasts call for a rise in aggregate demand during the last quarter of 1999. It is also expected that during this year of recession in all of Latin America, the Peruvian economy will post one of the highest real growth rates in the region (around 3 percent).

B. Education in Peru

1. Organization and levels of education

1.2 The Ministry of Education (MED) is the agency responsible for education. The Ministry determines national education policy and standards, carries out follow-up activities, supervises and evaluates the performance of the educational system, and measures the results of its projects.

1.3 Peru's educational system is divided into four levels: early, which is three years in duration and is intended for children between three and five years of age; primary school, which is six years long (for children aged six to 11); secondary school, which is five years (for children aged 12 to 17); and superior education (university and non-university), which is of variable duration. There are also several different educational modes, which are implemented at one or more of these levels, including special education, bilingual education and vocational training.

1.4 The main education indicators are presented below.

Table I-1
1998 education indicators

Levels	Total enrollment	School enrollment	Faculty	Schools	Classrooms	Teacher/ Student ratio	Repeater rate	Dropout rate	Cost Cte.*	Cost per student *
	Total (public)	Total (public)	Total (% public)	Total (% public)	Total (% public)	Total (% public)			Million US$	Student US$/
Early	1,052.8 (895.3)	713.8 (556.4)	34.6 (20.5)	14.8 (9.7)	34.6 (19.41)	20.6 (27.1)	0	7.2	130.6	234
Primary	4,301.9 (3,728.6)	4,293.0 (3,722.1)	167.2 (130.0)	33.5 (28.0)	155.9 (123.78)	25.7 (28.6)	9.8	9.3	777.7	209
Secondary	2,263.1 (1,875.1)	2,235.4 (1,868.7)	126.9 (94.6)	8.8 (6.1)	68.3 (50.68)	17.6 (19.8)	5.9	7.3	486.0	260
Non-University Higher education	328.4 (167.5)	328.4 (167.5)	22.7 (10.3)	1.0 (0.4)	9.2 (4.13)	14.5 (16.3)	n.d.	n.d.	55.8	330
Total	7,946.2 (6,666.5)	7,570.6 (6,314.7)	351.4 (255.4)	58.1 (44.2)	330.4 (197.58)	21.5 24.7			1,450.1	

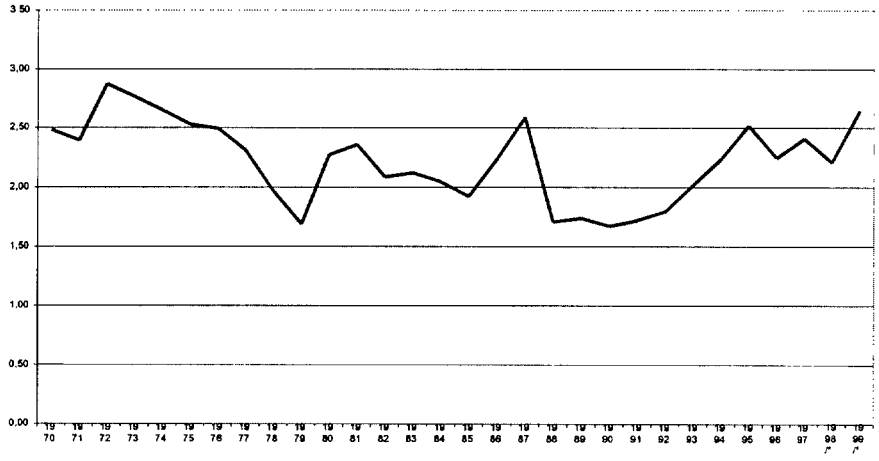
Source: Ministry of Education, 1998 Basic Statistics, MEF.

* 1997 data.

2. Sector costs and financing

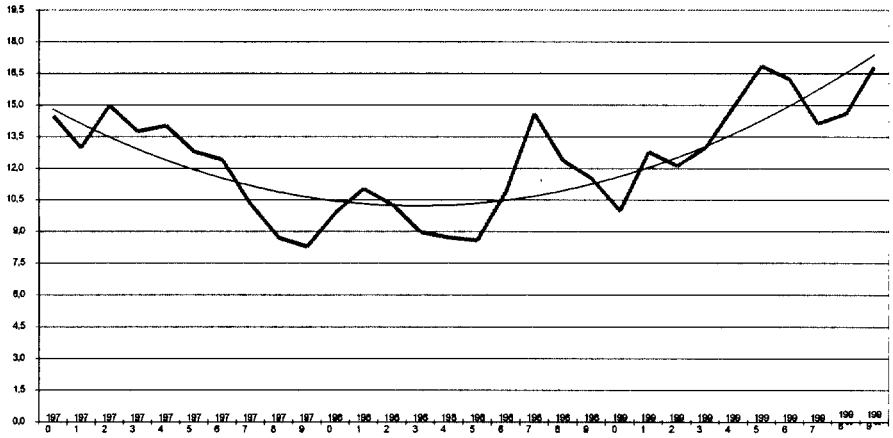
1.5 The percentage of GDP dedicated to education is indicated in graph I-1. Since the 1970s, there has been a downtrend in education spending. This downward trend was reversed in the early 1980s and education spending hit its high point in 1987. Spending went down again beginning in 1988 and hit the historic low of 1.7 percent of GDP between 1989 and 1992. Spending increased steadily beginning in 1993 and then leveled out from 1996 at between 2.3 and 2.5 percent.

Graph I-1
Public Spending on Education as a Percentage of GDP
Porcentages



1.6 There have been large fluctuations in education spending as a percentage of total public spending (graph I-2). Between 1970 and 1979 the percentage fell steadily, from 15 percent in 1972 to less than 9 percent in 1979. The second half of the 1980s witnessed the highest rate of growth; this period ended with the 1987 economic crisis, which was followed by one of the steepest drops in the last 30 years. The share of education spending went up almost continuously during the first half of the 1990s, due to the increase in education spending and the decrease in GDP because of the deep recession. During the second half of the 1990s, spending on education continued to go up, but the rate of increase as a percentage of the national budget went down.

GRAPH I-2: Portion of the national budget dedicated to the education sector, 1970-1999 (Percentages)



** Budget 1999** Preliminary

1.7 Between 1990 and 1997, spending per student increased in real terms by 70 percent at the preschool level, 87 percent at the primary level, 71 percent at the secondary level and 79 percent at the non-university tertiary level. While these increases are significant, in large part their effect was to return spending to 1970s levels.

3. Main characteristics and problems

1.8 Over the last 20 years, Peru has significantly expanded its education system and has achieved relatively high levels of coverage (90 percent at the primary level and 56 percent at the secondary level) compared with other countries with similar per capita income. The Peruvian population now has higher education levels and better access to educational services than two decades ago. In this regard, the Government's efforts as the main provider of educational services have been effective. These efforts were combined with private family spending on education, which demonstrates the high value placed on education. Family spending as a percentage of GDP has reached 1.3 percent, which compared favorably with other countries in the region, such as Argentina, with a rate of 0.75 percent of GDP and

Chile (the country with the highest rate of private spending on education), at 2.5 percent of GDP[1].

1.9 **Primary education.** The most important advances at this level are:

a. Adjustments have been made to the curriculum and learning methodologies.

b. Internal efficiency has begun to improve. There have been significant increases in 3rd and 4th grade enrollment; enrollment increased an average of 15 percent between 1993 and 1998, which is higher than the rate of population growth for the primary level age group (2.3 percent).

c. MED is carrying out systematic in-service teacher training in accordance with the National Teacher Training Plan (PLANCAD), aimed mainly at improving classroom teaching methods in order to increase student participation and make better use of teaching materials.

d. Remuneration levels, which in 1991 reached their lowest point since the crisis of the 1980s, increased steadily from 1992 to 1998 by approximately 60% in real terms over the period.

e. In spite of the fact that there has been no increase in the number of public schools, the number of classrooms has increased, especially in rural areas and in districts with a lower relative standard of living.

f. The teacher/student ratio has stabilized at near the level seen in the early 1990s (30 students per teacher) and the underutilization of basic infrastructure has decreased as a result of smaller class size.

1.10 In spite of the advances in primary education, quality must still be improved. For better-trained teachers, full implementation of the changes in classroom methodology, and full coordination with early education are essential for the implementation of these activities. It is also necessary to increase coverage in rural areas, and make services more flexible in order to improve internal efficiency rates.

1.11 **Secondary education.** In spite of advances in primary education in particular, and in increased coverage in general, secondary education is experiencing problems in the following areas: (a) quality of services provided; (b) internal efficiency; and (c) the applicability of this educational level. In addition, there are discrepancies in access as well as in repeater and dropout rates between the urban and rural student populations.

1.12 **Quality.** The low level of quality is a result of many factors, including:

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[1] Source: OECN, 1998. Education at a Glance

a. New curriculum not yet implemented. Until 1998 the curriculum was focused heavily on encyclopedic-type knowledge. A new curriculum has been designed to address this problem and is at the testing stage.

b. Low quality teachers. The quality of teacher training decreased due to the increase in numbers as a result of expanded coverage and a lack of pedagogical and methodological continuing education, which is aggravated by a lack of teaching materials. Teachers are forced to cover a curriculum that is overloaded with content and, in general, teaching methods used in the classrooms do not encourage student participation.

c. Lack of educational materials. Students' ongoing lack of access to textbooks and educational materials appropriate for the new curriculum design significantly hinders learning. In addition, school library collections are deficient. They are outdated and insufficient to meet student demand.

d. Incipient performance evaluation system. A system for measuring the level of knowledge achieved by secondary school students is in the initial stages of development. If it is to achieve its objective of guiding formulation of education policy, its strategies must be reinforced and certain technical aspects must be redesigned.

e. Lack of incentives. Teacher activity is not tied either to their own performance or to student performance. The lack of a system of incentives thus limits the ability to identify better qualified and/or better performing teachers.

f. Lack of stimuli to innovation. Innovative projects in schools are very limited. Some innovative projects, both pedagogical and administrative, have come about spontaneously, but have not been implemented systematically. This has prevented the creation of a solid enough precedent to establish a practice of promoting this type of initiative.

g. Utilization of information technology is in incipient stages. The educational network project (EDURED) supports installation of information technology in schools. It has installed a network of computer labs in 250 secondary schools in 22 departments in the country. However, greater coordination between the use of these computers and the academic curriculum is needed.

h. Equipment shortage. There is a shortage of audiovisual, laboratory and other support equipment that facilitates the learning process.

i. Deficient infrastructure. There is no shortage of plant space, but despite the efforts made in the 1990s the condition of the majority of public schools is poor. Approximately 35 percent of classrooms in urban areas are in need of renovation.

1.13 **Internal efficiency.** Of the total number of students who complete primary school, 87 percent register for the first year of secondary school. Of those, only 62 percent graduate, which is indicative of a high dropout rate. In addition, only 20 percent of students who complete the last year of secondary school do so without repeating a grade during their 11 years of schooling.

1.14 **Practicality of education.** There is a broad consensus in the country regarding the low rate of external efficiency and the limited success of secondary education in adequately preparing graduates both for higher education and for work. Universities consider the level of preparation of the students who wish to attend each year to be deficient. In response to this problem, a whole industry of private academies and institutions that prepare secondary school students for entrance exams has sprung up. The demand for the services these institutions provide is indicative of the low quality and practicality of education in many secondary schools and further skews the inequality of access along socioeconomic lines among students who wish to pursue higher education.

1.15 **Vocational training.** Vocational training has increased dramatically. These services have both practicality and quality problems. In general, teachers do not have adequate practical training, most of the equipment is obsolete, the content is not up to date, and the internal efficiency is low. Currently available services are characterized by the fragmentation of professional offerings, many of which are out of date, and the proliferation of private institutions of uneven quality. In addition, the relationship with the private sector, the potential employer of human resources trained by these institutions, is very limited, which is a key problem in terms of the practicality and current applicability of professional training.

1.16 **Inequality.** There are observable inequalities in access and internal efficiency rates between students in urban and rural areas. Students in urban areas have a higher rate of enrollment and lower repeater and dropout rates than students in rural areas. With regard to education levels for the female population, due to the expansion of the educational system, access to education for girls has increased. Currently, women under 25 have average education levels similar to those of males.

1.17 **Institutional background.** Up until the mid 1990s, MED ineffectiveness was evidenced mainly by: (a) lack of medium- and long-range planning; (b) emphasis on administrative functions over technical/pedagogical functions at the central level; (c) personnel training not sufficiently updated to meet the needs of the system; and (d) slow, outdated administrative procedures. Beginning with the restructuring of the MED in 1995, the situation has begun to improve. The in-house staff has been reduced and better-qualified people have been contracted. The MED currently has approximately 300 payroll staff and 800 employees, approximately 40 percent with performance-based contracts and 60 percent on permanent contracts. However, additional measures to increase efficiency are still needed.

1.18 **School autonomy.** The public education system is a centralized system. Schools remain highly dependent on higher authorities for their operations, and they do not make important decisions regarding the resources they manage. Schools do not participate in the process of screening and hiring teachers, which limits their capacity for efficiency and for evaluating the results of their own administrative processes and of classroom teaching. In spite of several attempts by the Government (two supreme decrees and one ministerial agreement) to promote autonomous school management, most of them have not put that authority into practice. This can be attributed in part to lack of training of administrative staff and the absence of other measures designed to creative incentives for school autonomy.

C. Government strategy

1.19 The government's strategy for education aims to promote variety in the provision of educational services, improved quality, an increase in resources channeled into education, the implementation of economic incentives tied to results and the encouragement of greater participation by civil society in school management. The MED has set as specific goals to be met by the year 2007, the eradication of illiteracy in the under-forty population and universalization of basic education.

1.20 In addition, the government has recently launched an initiative designed to decentralize education and health services. The Executive is preparing a bill to be introduced in Congress that would transfer a portion of the funds to local governments. This program falls within the general parameters of that initiative.

1.21 At the early and primary levels of education, the main problems –low quality and low efficiency– are being addressed with curriculum changes and changes in teaching methodologies, provision of educational materials to students, teacher and administrator training, renovation, replacement and expansion of infrastructure and provision of furnishings and fixtures. In addition, a program for universalization of education for children five years of age has been implemented. The activities of this program will not only complement the MED's current program activities, but will also allow for the application of methodologies already in use. Such is the case of PLANCAD for teacher training, implementation of the text distribution system, and collection of information in quality circles.

1.22 At the secondary level, the MED's objective is to redefine secondary education, making it the final stage of basic education. To this end, it has drafted a series of proposals for improvement of inputs and processes and introduction of innovations. A program is being prepared with the World Bank in order to address the problems of inequality in access and quality between the urban area and rural areas (where the majority of the indigenous population lives) and problems related to teacher training.

1.23 As part of the strategy intended to improve both the practicality of secondary education and its applicability to superior education and the labor market, a new level of education – high school – is being developed. It will be two years in duration, will be free in public schools and mandatory only for those students who wish to pursue higher education. As a result of the creation of the high school level, the first four years of secondary education and the six years of primary education will be combined into a single level of 10 years of mandatory education that will be designated basic education. Upon completion of the tenth year, students will receive a certificate and may enter high school if they wish. High school education may be provided by both public and private schools, including institutions of higher education and universities. During 1999 this level is in the process of initial implementation in a group of 167 public and 22 private schools. In the years 2000 and 2001 other high schools[2] will be added until a total of approximately 300 (217 public schools) is reached. These schools will be monitored and evaluated in order to make necessary organizational, curricular and methodological changes prior to expansion of the high school level to the rest of the system.

1.24 The high school level is designed to improve the success of graduates of the basic education system in accessing higher education and entering the job market. In addition, as a new level of education, the high school level will provide much opportunity for variety in services offered, both public and private, and for experimentation with different forms of organization and administration. This will stimulate the implementation of innovations such as the use of university professionals from the different disciplines taught and the development of incentive structures that link teacher performance to student performance. Evaluation of high school education will seek to measure not only its impact in terms of student learning and increased rates of entry into the university system and the workforce, but also the impact of private school participation in terms of financing and administration. This evaluation will also serve as a basis for determining the scope and nature of later expansion of the high school level.

1.25 In the area of vocational training, the objective is to develop a training plan that includes: (a) a new model linked to the productive and service sectors, which tailors the different types of education provided to those sectors; (b) a new regulatory system for teacher hiring, retention, evaluation and compensation; and (c) an ongoing accreditation system that will regulate educational services and encourage continual updating.

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[2] High schools are secondary schools, universities, academies and other public and private institutions authorized to provide this new level of education.

D. Experiences of the Bank and other financing organizations in the education sector

1.26 In 1996, the Bank approved the program, Improving Education Quality (PE-0116), in the amount of US$167 million, which is currently in effect. These funds mainly finance the universalization of early education for the population of five-year-olds. The program also includes components designed to support curriculum review and teaching methodology review at the secondary level (US$11.7 million), and a series of activities related to the new model for vocational training (US$2.1 million). The original proposal included a component at the secondary level for financing of infrastructure and equipment, which was postponed. It was agreed that upon completion of the implementation goals for curriculum development, training, and infrastructure of the approved program, the preparation of a new phase would be initiated, mainly targeting secondary education, which is the subject of this program.

1.27 Another program approved by the Bank in 1998 related to the education sector is Wawa Wasi (PE-0167), in the amount of US$46.6 million, to support the population under three years of age, which will put them on a better footing upon entry into early and primary education. The World Bank is also implementing the program for improving primary education and is preparing a program for improving the quality of rural education, which includes primary and secondary schools. Other institutions, such as KFW, Cooperación Española (Spanish Cooperation) and the European Union, are also supporting various education projects.

1.28 In addition, the MED is implementing other non-reimbursable technical cooperation programs, among which should be noted the comprehensive drug abuse prevention project at the primary level and the teacher training project financed by the United Nations (US$4 million), support of the national sex education program financed by the United Nations Population Fund (US$1.8 million), preparation of reforms in teacher training (PROFORMA) financed by the German development agency GTZ/KFW (US$9.3 million), and support for rural education financed by the European Union (US$2.5 million).

E. Project rationale

1.29 The program is consistent with the changes introduced both at the preschool level and at the primary level of basic education. The objective at the secondary level is to improve the quality of education by providing the resources necessary to ensure learning goals are met and by experimenting with new teaching methods. While financial investments are essential to improving the quality of education, they must be combined with measures intended to encourage more autonomous administration of schools. Thus, incentives for the introduction of innovative initiatives, both in terms of administration and teaching methods/curriculum, will be implemented in the schools. These initiatives will be monitored on an ongoing

basis and their results evaluated as a first step toward expansion to other schools. In addition, the performance evaluation system at the secondary level will be strengthened and will be used for the purpose of formulating education policy. The new curriculum, which focuses on development of competencies, also includes subject matter related to indigenous values, language and history.

1.30 The first phase of implementation of the high school level is being promoted as a means of improving the success rate in higher education and in the job market of basic education graduates. To this end, similar projects designed to accomplish the same objectives in other countries are being studied. In addition, as a new level of education distinct from the secondary level, the high school level will provide great opportunity for variety in services offered, and for experimentation with different forms of organization and administration. This will stimulate the implementation of innovations in teaching methods and management and the development of incentive structures that link teacher performance to student performance. In this regard, addition of the high school level is preferable to expansion of the primary level by one year. Upon graduation of the first high school class (year 2000), the results will be evaluated in order to identify lessons learned and implement the necessary changes prior to the expansion phases. The evaluation process will put special emphasis on measuring the effectiveness of high school education in improving graduates' level of preparation for university studies and entry into the workforce. The impact of private sector participation in providing educational services will also be evaluated.

1.31 In vocational training, there are plans for a pilot program that includes exploration of innovative forms of institutional administration based on the creation of ties between educational institutions and business, new financing and resource-allocation structures, new methods of recruitment, hiring and compensation of teaching staff, a curriculum model based on competencies, and the implementation of an accreditation system for providers in this new model. The results of this pilot program will be evaluated, and special emphasis will be placed on determining the number of women entering these institutions, in order to evaluate whether special measures to promote the admission of larger numbers of women are necessary.

F. Strategy and basis for Bank involvement in Peru

1.32 The Bank's strategy in Peru emphasizes social programs, and aims to promote sustained growth, alleviate poverty and encourage efficient use of natural resources and environmental protection. In all these areas, the development of human resources is critical. Education tends to promote poverty reduction and improvement in income distribution and equity. This program is in accordance with the Bank's policy objectives in that it will promote higher quality, more practical education, and greater efficiency in the educational system.

II. THE PROGRAM

A. Objectives

2.1 The objectives of the program are: (a) to improve the quality of secondary education (the last four years of basic education); and (b) to improve practicality and tailor the educational system to the job market.

2.2 The specific objectives of the program are to: (a) support the implementation of a new curriculum aimed at the development of competencies; (b) bolster student learning by improving educational inputs and instructional approaches in the classroom; (c) strengthen the school management; (d) support the first stage of the implementation of a new level of education (the *bachillerato* or high school); and (e) support the development of a pilot project for vocational training under a new institutional framework.

B. Program strategy

2.3 The program was conceived and studied as an operation with a total estimated cost of US$370 million, of which the Bank will finance US$220 million. The program will be executed in two phases, each of which will be funded by separate Bank loans of US$120 million and US$100 million, respectively. Approval of the second phase will be contingent upon fulfillment of the conditions set forth in Annex II-1. These include conditions related to significant aspects of each of the main activities of each component, both with regard to specific disbursement amounts and specific goals for the number of teachers trained, classrooms renovated, textbooks distributed, school libraries installed, computers and equipment installed, measures of secondary school performance implemented, and pedagogical and administrative innovations implemented and expanded. In addition, teacher training activities and the introduction of computers into the schools will be evaluated.

2.4 The program has four components: (1) institutional strengthening; (2) improving the quality of secondary education; (3) support for the first stage of implementation of the high school level; and (4) pilot project in technical professional training. The first three-year phase includes the above four components. The second phase, also three years in duration, includes components 1 and 2 only. Annex II-2 shows the relationship between the problems identified in Chapter I and the components and activities of the program. The expected end results, as well as indicators, verification methods, and assumptions are presented in the Logical Framework, which is attached as Annex II-3.

C. Components and activities

2.5 The organization of the components and subcomponents of the program is presented in Table II-1. Program activities to be implemented during the first phase are described below. By way of illustration, the costs and physical goals of the second phase are attached in Annexes II-4 and II-5, respectively.

Table II-1
Program components and subcomponents

Component	Subcomponents
1. Institutional strengthening (6 years/2 phases)	a. Marketing b. Strengthening of responsible divisions c. Analysis and evaluation system d. Program administration
2. Improving the quality of secondary education (6 years/2 phases)	a. Textbooks, materials and equipment b. Training c. Infrastructure d. Educational innovations e. Educational information technology f. Performance assessment
3. Implementation of high school level (3 years/1 phase)	a. Textbooks, materials and equipment b. Training c. Infrastructure d. National evaluation and testing
4. Professional training pilot project	a. Textbooks, materials and equipment b. Training c. Infrastructure d. Educational innovations e. Accreditation system

1. Institutional strengthening

2.6 The proposed program will introduce substantial changes in the structure of Peru's educational system as well as major innovations in teaching practices and school management. In order to meet this challenge, responsible agencies must be institutionally strengthened through provision of equipment and through training, technical assistance and consulting activities that will allow for coordinated and effective execution of the various program activities, as well as support for distribution and promotion of those activities among different segments of civil society.

2.7 This component includes: (a) marketing and information campaigns promoting the three components; (b) strengthening of divisions within the MED that will be responsible for implementing components; (c) system of analysis and evaluation; and (d) program administration. The cost of this component will be US$12 million.

a. Strengthening of divisions (US$6.8 million)

2.8 MED divisions involved in the program will be strengthened. Consultants and technical assistance services will be contracted in order to: (a) update the statistical information system; (b) support implementation of school performance tests; (c) support the educational programming system; and (d) train the staff of these divisions. In addition, equipment and software programs to support the activities described will be purchased.

b. Marketing (US$1.4 million)

2.9 A marketing and informational campaign will be designed and implemented to promote the various components of the program. Financing will cover public education and marketing campaigns, publicity spots and posters, publications, opinion polls, and production and distribution of informational materials. Special attention will be focused on those aspects that represent substantial modifications of the current educational system, such as: (a) activities in the secondary school area related to a new level of basic education lasting 10 years, within which the secondary level represents the last four years; (b) the proposal for a high school level as a new level of education; (c) the system of accreditation for professional educational institutions; (d) the introduction of incentives for innovation in secondary schools; and (e) evaluation of school performance as a tool for improving educational practices.

c. Analysis and evaluation system (US$1.7 million)

2.10 Consulting, technical assistance and training services will be contracted for the purpose of strengthening program monitoring, oversight and evaluation by the Ministry of Education. The program will be monitored and evaluated on an ongoing basis, with special emphasis on evaluation of innovations in teaching and school management practices.

d. Program administration (US$2.2 million)

2.11 Program activities will be carried out through responsible MED agencies with the cooperation of a Coordinating Unit (PCU). This subcomponent will support operations and equipping of this Coordinating Unit, which will supervise all program activities.

2. Improving the quality of secondary education (last four years of basic education)

2.12 This component supports a process of improving quality, which combines provision of inputs with innovations in teaching methods. Investment in inputs and procedures will be combined with measures designed to encourage more autonomous school management and to strengthen mechanisms for measuring school performance.

2.13 This component includes: (a) provision of textbooks, teaching materials, and equipment in order to improve the quality of learning inputs and support the curriculum review process; (b) teacher training focusing on more participatory learning models and training of administrators for more autonomous school management; (c) renovation, replacement and expansion of infrastructure, including the corresponding furnishings and fixtures; (d) the development of incentives for innovation in secondary schools in the areas of administration, curriculum development, and refinement of new practices; (e) development of the use of new information technologies, both through expansion of the EDURED program and experimentation with the International Virtual Schools Network project (IVEN); and (f) refinement and expansion of mechanisms for measuring school performance. The cost of this component will be US$126.4 million.

2.14 Evaluation of the secondary school component will place special emphasis on evaluating the process of implementing the new curriculum through consistent application of new teaching methodologies, new learning models, and new textbooks and educational materials. A system of review and evaluation will also be implemented, focusing on indicators of improvement in secondary education. In addition, baseline statistics will be established with quantitative and qualitative indicators consisting of at least: (a) grades completed, (b) repeater and dropout rates; and (c) student academic achievement levels. These indicators will be evaluated and broken down by the socioeconomic level of the beneficiaries. The baseline evaluation of the indicators will be carried out after five years of program implementation.

a. Textbooks, materials and equipment (US$31.6 million)

2.15 One million, one hundred thousand student text modules and 60,000 manuals for teachers and administrators will be designed, produced and distributed. Each student text module will include five textbooks and each teacher manual will include a basic curriculum design, text support guides, and thematic guides with information for planning and implementing learning activities. The manuals for school administrators include support for administrative and curriculum management. In addition, 3,700 libraries will be installed and 2,400 science modules and 3,700 social science, productive processes management and physical education modules will be distributed to secondary schools. Two thousand five

hundred video and 1,500 television modules will also be provided to those schools that do not currently have them.

b. Training (US$26.9 million)

2.16 Support will be provided for training 65,000 secondary school teachers and administrators in the new curriculum content, new content of the thematic areas, proper use of active learning methods and effective use of the educational materials provided. In addition, administrators will be trained in the use of administrative and planning tools and in human resource management in order to improve their administrative skills. During the first phase, training will be carried out preferably in those areas that have a greater installed institutional capability of responsible agencies, covering all regions of the country. A study will be performed for the purpose of evaluating, among other things, the impact of training activities on student learning, the scope and degree of change in classroom practices, the level of compatibility between the new teaching practices implemented through teacher training and the new curriculum content and approach, changes in use of class time, physical classroom layout, and opportunities for student participation in classroom activities. The results will guide teacher training activities during the second phase of the project.

c. Infrastructure (US$52 million)

2.17 A total of approximately 2,800 classrooms will be renovated, replaced and/or expanded and will be equipped with furnishings and fixtures. Of this total, 25 percent will be replaced or expanded (65 percent of total investment) and 75 percent will be renovated (16 percent of total investment). In addition, investments will be made in auxiliary physical plant at 19 percent of total investment. The two priorities for infrastructure work are: those secondary schools that will become high school sites, and schools with the most pressing infrastructure needs, most of which are located in poorer areas.

d. Educational innovations (US$3 million)

2.18 Support will be provided for development and implementation of innovative pedagogical/curriculum projects and innovative school management projects through a competitive process open to all 6,000 secondary schools. Four hundred fifty projects will be financed during the first phase. It is estimated that 40 percent of these will be institutional administration projects and 60 percent will be pedagogical/curriculum management projects. Between US$2,000 and $6,000 will be granted for implementation of projects, for an average of US$4,000 per project. In addition, financing will be provided for technical assistance to implement the innovations, supporting material for project preparation and dissemination of successful projects in secondary schools. Project proposals will be evaluated in terms of their contribution to strengthening both the institutional development

project and the school curriculum project as well as their intended improvements in educational quality and sustainability.

e. Educational information technology (US$11.6 million)

2.19 This subcomponent includes two elements: the introduction of new communications and information technology under the auspices of the EDURED project and the implementation of the International Virtual Schools Network pilot project.

2.20 The EDURED project will implement the use of new information technologies in a total of 300 schools (approximately 90,000 students). These schools will be provided with 3,000 computer systems and software designed to improve student learning. In addition, 9,000 teachers and administrators will be trained in the use and integration of these new information technologies with curriculum activities and school administrative procedures, respectively. This subcomponent also includes maintenance of servers, networks, facilities, and equipment. The first year of the program will include an institutional education process that will incorporate international experiences in this area as well as EDURED's experience to date. A study will be carried out for the purpose of evaluating, among other things, impact on student learning, preparation of teachers to apply the new information technologies to the curriculum, and a cost/benefit analysis of the investment made. The results will be used for formulating strategy in this area and will be taken into account for the purpose of future expansion or implementation of these programs in other schools.

2.21 The International Virtual Schools Network activities are part of a regional pilot project (in Peru, Colombia, Brazil and Venezuela) sponsored by the Bank. Its objective is to create an international network of schools for teaching mathematics and science. This project will focus on the last two years of secondary school and will be implemented in 50 schools. A team of content specialists, technical experts, and electronic curriculum programmers will be created for the purpose of ensuring coordination – by means of a virtual network – in producing learning modules in science and math. In addition, a physical network will be created for content distribution, cooperative learning, and educational support in science and math. Evaluation of the IVEN project will include a cost-effectiveness analysis similar to the one mentioned in the preceding paragraph.

f. Performance assessment (US$1.3 million)

2.22 Support will be provided for strengthening mechanisms for measuring student learning at the secondary level through the design and implementation of tests with reference criteria that will initially allow for specific competencies in the areas of communications and math to be measured. Sample measurements will be used and will be taken in the 2nd and 4th grades of secondary education. Tests will be

administered to a sampling of 18,000 4th grade students and 18,000 2nd grade students. The results of these tests will be distributed to the entire educational system, as well as to business, politicians, media, and the general public. In addition, the program will provide resources to create a research fund that will support educational research projects designed to analyze the results obtained.

3. First stage of implementation of the high school level

2.23 This component supports integration of basic education graduates into higher education and the workforce. In addition, as a new level of education, the high school level will provide great opportunity for variety in services offered, both public and private, and for experimentation with different forms of organization and administration. This will also encourage the use of professionals from different areas of teaching specialization.

2.24 This component includes: provision of textbooks, materials and equipment to facilitate achievement of the skills and competencies set forth for this level of education; training of teachers and coordinators both in administration of the new learning techniques and methodologies and in the new curriculum content; evaluation mechanisms for the high school level and national testing; equipment; and renovation, replacement, and expansion of infrastructure and provision of furnishings and fixtures. In addition, subsidies for high school children from outlying districts and rural areas are under consideration. The total cost of this component is US$32.3 million.

2.25 A study will be carried out for the purpose of evaluating, among other things, the impact of the high school level on student learning, student access to higher education, and entrance into the labor force, as well the cost/benefit relationship of the different methods of administration and implementation in the public and private institutions of higher learning in which this new level of education will be provided. In evaluation of implementation of the high school level of education, special emphasis will also be placed on coordination between the various elements: teacher training, physical infrastructure, textbooks, and materials.

a. Textbooks, materials and equipment (US$20 million)

2.26 Text and activity modules will be provided to all high school students (approximately 56,000). All high school teachers (8,600) will be provided with a guide module, so that they have reference materials for preparing classes and guiding student activities. In addition, each high school (267 sites) will be provided with a reference collection of science books.

2.27 Each high school will receive 320 computer modules (20 computers per module) designed to function as a network and connected to the Internet. All those provisions relating to teacher and administrator training in integration of the new

information technologies with high school curriculum development will be taken into consideration, along with all those provisions relating to supply of software and equipment maintenance. In addition, high schools will be equipped with 200 audiovisual modules that will support learning of communications and English, and 267 technological modules intended to improve student success in the job market. This equipment will complement investments already made in some high schools.

b. Training (US$4.3 million)

2.28 Teachers will receive training intended both for secondary teachers and other professionals selected to teach at this level of education. This training will focus on two main areas: training teachers to use new instructional methodologies and techniques, and reinforcing their knowledge of curriculum content. A total of 5,400 teachers will participate in two annual training sessions. Those who perform tutoring functions will participate in additional workshops and receive additional advising. Teacher training activities will be complemented with incentives for high schools that demonstrate outstanding effort, dedication, and creativity in implementation of the program, taking into account the evaluation of the training providers.

c. Infrastructure (US$5.3 million)

2.29 A total of 111 classrooms (and their auxiliary infrastructure) will be renovated, replaced or expanded. Investment in high schools will be distributed on the basis of secondary school enrollment in the district, the demand in the education community for implementation of this new level, and the pedagogical and basic infrastructure characteristics of each site. In addition to these factors, lower income areas with the highest poverty rates will be given priority for placement of high school sites.

d. Evaluation and national testing (US$2.7 million)

2.30 Technical assistance and training services will be contracted both for establishing an external system of high school evaluation and for the implementation of national high school testing. The system of evaluation will aim to evaluate the impact of the high school curriculum. This evaluation will be carried out during the third year of the program, on the basis of a sampling of high school students.

2.31 With regard to the national testing, a standardized examination will be administered at the national level. It will be a voluntary examination that will evaluate skill and competency levels as well as specific knowledge. The national examination will be administered in the years 2000, 2001 and 2002 to all students who wish to take it. It is estimated that approximately 20,000 students will take the examination in the year 2000, an equal number in 2001, and approximately 35,000 in the year 2002.

4. Professional training pilot program

2.32 This component supports the development of a pilot program that mainly includes innovations in the development of institutional administration models, with emphasis on relationships between professional training centers and potential employers of the human resources trained in these centers, as well as substantial modifications to the system of recruitment, hiring and compensation of teaching staff.

2.33 Included: the development of innovations in the area of institutional administration with the participation of the private sector, and the implementation of new rules and procedures for teacher selection, recruitment, compensation and performance; the implementation of a system of accreditation for educational institutions; teacher training, supply of materials and basic equipment in the pilot sites and preparation of physical infrastructure. The total cost of this component is US$6.8 million.

2.34 An evaluation will be performed of the following and other aspects: the establishment and consolidation of relationships between institutions and business, change in the professional background of the teachers working in the institutions, the implementation of methods of tracking the professional careers of graduates, and the development of internship programs for students. The results will be incorporated into the strategy design for this area, taking into account future expansion or implementation of these programs in other vocational and professional training centers.

a. Textbooks, materials and equipment (US$3.6 million)

2.35 Training materials will be designed in accordance with the needs and characteristics of teachers and students and will be distributed to the pilot vocational training centers. A total of 2,600 curriculum guides, 2,600 professional degree catalogues, 2,600 teacher's guides and 2,000 equipment manuals and practical guides will be distributed to students. The curriculum guides, professional degree catalogues, and teacher's guides will include centers that are not part of the pilot program. In addition, a documentation center will be established in each pilot center with a basic bibliography and technical journals. These centers will also provide Internet access to students and teachers.

2.36 In selected pilot centers, financing will be provided for acquisition of equipment to complement existing equipment. Once equipment is installed, a maintenance and repair plan will be drafted in each center with the objective of facilitating equipment use. Also, other possible services that may be derived from this investment in each school will be considered.

b. Training (US$0.8 million)

2.37 A total of 1,300 teachers, 35 administrators and 35 coordinators will receive training. The training program will include teachers from pilot centers, as well as teachers from other schools. Teachers will be trained in methodologies and latest technologies, as applicable to the characteristics of professional areas and degrees selected. The administrators and coordinators will be trained in administration, with particular emphasis on implementation of models of creating relationships between vocational training centers and private enterprise.

c. Infrastructure (US$0.6 million)

2.38 Classrooms and workshops in the selected pilot centers will be renovated or remodeled in accordance with the equipment needs of the professional areas selected. In certain cases, the construction of a classroom or workshop is planned, and will be dependent on the level of participation of business and other supporting institutions.

d. Educational innovations (US$0.4 million)

2.39 Technical assistance support will be contracted for the application of models of administration with the participation of business, trade associations and other organizations in the five centers selected as pilot centers. Strategies to promote participation and commitment on the part of the private sector may be pursued by various means, such as participating in advisory councils or trade associations and joint center management. The selected centers will be subject to a labor regime that affords them the autonomy to make decisions regarding the composition of the workforce. Teacher hiring may be carried through two methods: by a contract with a juridical person or by direct contracting of teachers as independent contractors. In addition, special emphasis will be placed on designing and implementing a mechanism for tracking training center graduates.

e. Accreditation system (US$1.4 million)

2.40 A system of accreditation of educational institutions will be implemented. The system will be based on the establishment of standards of evaluation for each institution's program, which will include: the institution's technical/pedagogical plan, teaching staff, planned infrastructure and equipment, training system and socioeconomic backing for the project, and other elements that demonstrate the relationship between training and effective exercise of a higher professional career. The accreditation system will be implemented in stages, both in the private and public sectors. It is estimated that 688 degree programs and 230 institutions will be accredited in the public sector (80 percent of the total) and 748 degree programs and 508 institutions in the private sector (100 percent of the total).

D. Program cost and financing

Table II-2
Program for improving secondary education
Table of costs
(in US$ thousands equivalent)

Cost categories	Phase 1			
	BID	Local	Total	%
1. Administration [1]	**1,678**	**517**	**2,195**	**1.1**
2. Direct costs	**114,758**	**60,661**	**175,419**	**87.7**
2.1 Institutional strengthening	**7,559**	**2,346**	**9,905**	**5.0**
2.1.1 Marketing	1,078	322	1,400	0.7
2.1.2 Strengthening of responsible divisions	5,172	1,626	6,798	3.4
2.1.3 System of analysis and evaluation	1,309	398	1,707	0.9
2.2 Secondary	**79,986**	**46,400**	**126,386**	**63.2**
2.2.1 Textbooks, materials and equipment	23,340	8,307	31,647	15.8
2.2.2 Training	2,685	24,163	26,848	13.4
2.2.3 Infrastructure	42,095	9,874	51,969	26.0
2.2.4 Educational innovations	2,225	775	3,000	1.5
2.2.5 Educational information technology	8,653	2,969	11,622	5.8
2.2.6 Performance measuring	988	312	1,300	0.7
2.3 High school	**22,637**	**9,641**	**32,278**	**16.1**
2.3.1 Textbooks, materials and equipment	15,612	4,430	20,042	10.0
2.3.2 Training	638	3,613	4,251	2.1
2.3.3 Infrastructure	4,337	952	5,289	2.6
2.3.4 Evaluation and national testing	2,050	646	2,696	1.3
2.4 Technical professional training	**4,576**	**2,274**	**6,850**	**3.4**
2.4.1 Textbooks, materials and equipment	2,611	975	3,586	1.8
2.4.2 Training	76	681	757	0.4
2.4.3 Infrastructure	510	128	638	0.3
2.4.4 Educational innovations	318	111	429	0.2
2.4.5 Accreditation system	1,061	379	1,440	0.7
Subtotal before incremental costs	**116,436**	**61,178**	**177,614**	**88.8**
3. Incremental costs of operations [2]		**2,225**	**2,225**	**1.1**
Subtotal	**116,436**	**63,403**	**179,839**	**89.9**
4. Contingencies	**2,364**	**768**	**3,132**	**1.6**
5. Finance costs	**1,200**	**15,829**	**17,029**	**8.5**
5.1 Interest		14,801	14,801	7.4
5.2 Credit fee		1,028	1,028	0.5
5.3 FIV	1,200		1,200	0.6
Total	**120,000**	**80,000**	**200,000**	**100.0**
% by source	60.0	40.0	100.0	

Notes:
1/ The cost of financial audits is included in the category of program administration costs.

2/ The incremental costs of operations refer to incremental costs for inputs and services that will be incurred by the government in the course of the program.

Financing plan

Table II-3 Loan conditions	
Funding source:	Ordinary capital
Amount:	US$120 million
Conditions:	
Amortization period	25 years
Disbursements	3 years
Interest rate:	Variable
Credit fee:	0.75% per year on undisbursed funds
Inspection and oversight:	1% of loan amount
Currency:	United States dollars under the Single Currency Facility

III. IMPLEMENTATION OF THE PROGRAM

A. The borrower and the executing agency

3.1 The borrower will be the Republic of Peru, which will designate the Ministry of Education as the executing agency. The MED will implement the project through its divisions with the support of the Program Coordinating Unit (PCU).

3.2 The PCU, which is responsible for implementing the Bank loan 956/OC-PE, is directly subject to the Vice Ministry of Institutional Administration [*Vice-Ministerio de Gestión Institucional*] of the MED and will be responsible for the administrative and financial coordination of the program. Consequently, a **special condition precedent to the first disbursement** of the loan funds will be the presentation of evidence to the Bank by the executing agency that the Program Coordinating Unit, established by virtue of Emergency Decree No. 94-94, as amended by Emergency Decree No. 011-97, has been designated as the coordinating unit within the Ministry of Education for the purpose of implementing the planned program activities.

B. Basic framework of implementation

1. Conceptual matters

3.3 The MED divisions and offices, with the additional support of temporary consulting services, will be responsible for the technical aspects of each component[3]. The purpose of this strategy is to use the implementation of the program as a means to create new sector capabilities and to sustainably institutionalize procedures and knowledge within the MED.

2. Coordinating unit

3.4 The PCU was established in 1994 in order to administer the agreement between the MED and the World Bank, and it has demonstrated its capacity to administer and implement considerable disbursement amounts.

3.5 The PCU will be responsible for: (a) coordinating the implementation of the program; (b) hiring consultants; (c) supervising the bidding and contract award processes; (d) preparing and administering the program budget; (e) perform monitoring in accordance with the regulations established in the loan contract; and (f) present the Bank with the reports that it requires, including those related to

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[3] The implementation of 956/OC-PE has shown that the Ministry of Education has made a significant effort to strengthen its branch departments, and the employees of these entities have successfully fulfilled their technical responsibilities.

annual program monitoring, audited annual financial statements, and semiannual fund reports on the status of the revolving fund.

3.6 The PCU will be responsible for maintaining an adequate accounting and administrative control system for program funds. The accounting system should be organized in such a way that it provides the needed documentation for the purpose of verifying transactions and facilitating the timely preparation of financial statements and reports.

3.7 The program records should be prepared in such a way that they: (a) make it possible to identify the amounts received from various sources; (b) record, in accordance with the catalog of accounts approved by the Bank, program expenditures, including those using funds provided by the Bank and those using local counterpart funds; (c) include sufficient details to identify the goods and services that were procured and how these were used; and (d) show the cost of the activities that comprise each component.

C. Implementation mechanisms

3.8 Prior to the beginning of each year, the branch department or office will prepare its operating plan in coordination with the PCU. Subsequently, these entities will prepare the technical documentation for carrying out the bidding and awarding processes for all of the required procurement and contracting; the PCU will be responsible for hiring. During the implementation of the program, the MED departments and offices will periodically provide the PCU with information on the status of each subcomponent.

3.9 The mechanisms that will be used to implement expenditures on eligible program investments are described below.

3.10 **Training.** The entities responsible for implementing the planned training activities will be selected through a call for proposals or competitive bidding process.

3.11 **Textbooks, materials, and equipment.** The technical entities will provide the designs and/or specifications for student and teacher textbooks, library modules, and audiovisual and computer equipment. The PCU will prepare the necessary documents for contracting publishing companies. The technical entities will work in conjunction with the contracted publishing companies on the technical aspects of revising the contents of textbooks and manuals. Specialized services will be contracted through a call for proposals for distribution to educational institutions. The textbooks will be lent to students under the library system described in the Operating Regulations.

3.12 **Infrastructure.** This component will be implemented by the Institute of Educational and Health Infrastructure (INFES), a decentralized agency of the Ministry of the Presidency. INFES is responsible for the planning, contracting, and

supervision of public construction, renovation, and replacement work in the education and health sectors. The technical entities will select the educational institutions, and the Office of Educational Infrastructure (OINFE) will develop, in conjunction with INFES[4], a plan for renovating and/or replacing classrooms for each year during the implementation period. The signing of an agreement between the MED and INFES establishing their respective obligations and fundamental procedures **will be a condition precedent to the first disbursement.**

3.13 The infrastructure work must conform to the following criteria:

a. All of the educational institutions should have legal title deeds and land in proper condition, and of sufficient size, to support additions, if necessary.

b. Each new classroom should accommodate up to 40 students. This criterion is not applicable in border areas or sparsely populated areas.

c. The construction work should include water and sewer service, a surrounding fence, and a recreational area.

d. If the total cost of renovating a classroom, including minor repairs, exceeds 60 percent of the cost of reconstruction, the latter option should be chosen.

3.14 **Consulting services.** The MED technical entities will prepare the terms of reference, and the PCU will be responsible for hiring in accordance with procedures acceptable to the Bank. Monitoring will be performed by the corresponding technical entities.

3.15 **Secondary education: incentives for innovation.** The MED will hold a national competition, and it will evaluate and select innovative projects. The goal for the first year is to sign agreements with at least 50 educational institutions and to begin the corresponding projects.

3.16 **Secondary education: academic achievement.** The MED will prepare and administer the national examinations. During the first year of implementation, the MED will administer the pilot communications and mathematics examinations to fourth-year secondary school students.

3.17 **Pilot professional training program.** (a) Accreditation system. The technical team will issue a call for proposals and select the specialized entities that will constitute commissions or authorized special entities (EEAs), and it will provide these with training. These commissions or EEAs will perform the accreditation process. In the first year of implementation, 30 percent of the public Institutes of Higher Technological Education (ISTs) must have processed by the accreditation system;

[4] INFES has been the executing agency of the infrastructure component of loan 956/OC-PE, and it has played an important role in competitive bidding processes.

after completion of the program-related construction work, the MED will provide the Bank with a status report on the above-referenced work and equipment, as well as an annual maintenance plan, within the first four months of each calendar year.

G. Investment schedule

3.21 In accordance with the implementation program, the tentative schedule for the first phase of investments and disbursements, including the loan funds and local counterpart funds, is presented below.

Table III-1: Schedule of Disbursements (in US$ millions equivalent)

Source	Year 1	Year 2	Year 3	Total	%
IDB	30.0	43.0	47.0	120.0	60.0
Local	11.0	37.0	32.0	80.0	40.0
Total	41.0	80.0	79.0	200.0	100.0
%	20.5	40.0	39.5	100.0	

3.22 The Bank will revise the investment schedule for the second phase after 75 percent of the loan funds have been disbursed.

H. Revolving fund

3.23 It is recommended that a revolving be established for the equivalent of 5 percent of the financing.

I. External auditing

3.24 Beginning with the first year and continuing through the implementation period, the program's financial statements must be audited by an independent auditing firm acceptable to the Bank. The first external auditing report must be submitted 120 days after the end of the first year of implementation, with subsequent reports to be submitted in the same manner until the program has been fully implemented.

J. Monitoring performed by the Bank during the implementation of the program

3.25 The monitoring and evaluation of the program will enable necessary adjustments and changes to be made in order to ensure the successful implementation of the program, following the guidelines described in Annex II-1, Milestones. The methodology for monitoring and evaluation will be based on verification of the indicators specified in the Logical Framework (Annex II-3).

(b) Innovation in institutional administration. The disbursements for training activities, the purchase of equipment, and the renovation of infrastructure will be approved when agreements with private companies have been signed.

D. Operating Regulations

3.18 The implementation of the program will be governed by the Operating Regulations, which will contain the required regulations and procedures for the implementation of each of the components and subcomponents, and the functions and responsibilities of the executing agency and its subordinates. The Operation Regulations will specify the divisions that are responsible for implementation, and it will establish the relationships that should exist between them. A manual describing the organization and functions of the PCU will also be prepared. The Operating Regulations will establish specific criteria as to which activities are be eligible for funding, and it will ensure that each of these activities has been sequentially and separately performed in accordance with the program's components and subcomponents. These regulations will include implementation criteria for each of the program's components, with particular emphasis on their most innovative aspects, and will detail the preparatory activities required in order to ensure proper implementation. In addition, annexes have been prepared for the implementation of: (a) the projects establishing incentives for innovation; (b) the operating mechanism of the accreditation system; (c) the mechanism for implementing the educational information technology activities; and (d) the operating mechanism for implementing the educational infrastructure projects, the training of teachers and administrators, and the provision of educational materials. **The Operating Regulations must take effect as a condition precedent to the first disbursement.**

E. Procurement procedures

3.19 The program will follow Bank procedures with respect to calls for proposals and the hiring of consulting services, including training services. An international competitive bidding process will be required for procurement of goods and related services valued at more than US$350,000 and construction work valued at more than US$3 million. The MED's procurement capacity was found to be satisfactory; consequently, it is recommended that audits be performed in the case of construction work valued at less than US$300,000, the hiring of consulting firms for less than US$50,000, and the hiring of individual consultants for less than US$10,000 (see Annex III-1, Procurement).

F. Building and equipment maintenance

3.20 The MED has prepared a building and equipment maintenance program that will ensure that the construction work and equipment provided during the program will be maintained according to generally accepted technical guidelines. For five years

1. Beginning of the program

3.26 Within two months of approval of the loan, the MED, with the assistance of the Bank, plans to hold a seminar/workshop on the beginning of the program.

2. Monitoring meetings

3.27 During the program execution period, the executing agency will provide the Bank with an annual progress report by March 1 at the latest, indicating the extent to which each of the annual component goals has been achieved. It is anticipated that the annual meetings with the Bank will take place within two months of submission of the report.

3.28 A provisional list of the matters to be discussed during the annual meetings is provided below;

a. a review of the implementation of the program during the previous year, including the activities performed, investments made, and the achievement of annual goals agreed upon for the year in question;

b. special emphasis on the inclusion of low-income groups in the activities carried out under the program and the annual work plans;

c. an evaluation of the implementation mechanisms;

d. a technical review of the various studies, progress reports, and preliminary and final reports financed with program resources; and

e. goals and action plans for the implementation of program activities during the following year, including recommendations on correcting the problems that were identified and adjusting the program's goals.

K. Reviewing the first phase milestones

3.29 The meeting to evaluate the results of the second year will serve as the starting point for planning the evaluation of program milestones. During this meeting, the date on which the milestone evaluation is expected to occur will be determined. Based on the program's projected implementation schedule, it is anticipated that the evaluation will take place during the last four months of the third year. The evaluative studies of the secondary component (see Paragraph 2.14), the training activities (see Paragraph 2.16), and the educational information technology component will be examined during the milestone evaluation. The evaluative studies of the high school level (see Paragraph 2.25) and the pilot professional training program (see Paragraph 2.34) will also be examined during this meeting.

L. Final evaluation

3.30 In the view of the MED, a final evaluation of the program's first phase will not be necessary, given that specific monitoring mechanisms have been established with respect to the main issues concerning the educational sector.

IV. VIABILITY, BENEFITS, AND RISKS

A. Viability

4.1 **Technical viability.** Numerous studies were carried as part of the operation's planning. With regard to secondary education training activities, the activities that have been performed to date at the primary level by PLANCAD were examined. The objective was to observe how teachers put newly-acquired knowledge and teaching methodologies into practice, since a similar training model would be used at the secondary level. It was determined that student classroom participation had increased and that the hiring system of independent institutions had shown positive results. However, it was thought that several changes should made in applying these innovations to secondary schools.

4.2 The academic achievement system is still in its initial stages of development and needs to be strengthened. To this end, a study was carried out that analyzed and proposed improvements in the performance assessment system, which were incorporated into the program. With respect to the high school level, a study was carried out that considered several implementation scenarios and how the national examination would be established. With respect to technical/professional education, a study was performed on companies with links to training centers, including an analysis of the various mechanisms that were used. This confirmed the private sector's interest in having access to qualified personnel, along with its willingness to try out new ideas and perspectives in order to achieve that goal.

4.3 The estimated need for teaching materials and textbooks was based on the new curricular framework, the number of classrooms, and the number of students. The existing materials were examined, and it was determined that there is a need to make corrections and modifications to their contents in view of the new curriculum; these corrections and modifications will be taken into account when educational materials are purchased under this program. In estimating the need to renovate physical infrastructure and the cost of doing so, the technical files of OINFE were examined, and direct visits were made to approximately 30 schools of various sizes in order to verify existing information. The studies and needs assessments that were performed showed that the program is technically viable.

4.4 The planning of the program not only involved the use of specific studies, but also a process of collaboration with specialists, consultants, and MED officials, which made an important contribution to designing a program that suited existing needs and allowed for the introduction of innovations. The methodological proposal and program concept were validated during a seminar attended by domestic and international experts. A stakeholder workshop involving teachers, school administrators, students, and parents was also held.

4.5 **Institutional viability.** The institutional capacity of the Ministry of Education to implement programs with international financing has increased significantly over the last three years. The level of World Bank and IDB program implementation and disbursement has undergone sustained growth, and in 1999, the MED was able to exceed implementation objectives, following a very ambitious disbursement plan for both programs. The planned institutional strengthening activities for divisions of the Ministry of Education will go even further toward bolstering this institutional capacity, ensuring that the program's goals will be achieved on schedule. INFES will be responsible for infrastructure work; it has a budget of its own and qualified personnel in the performance of these activities, and it has significant experience in calls for proposals and the administration of construction contracts for programs with international financing.

4.6 **Lessons learned.** The program entitled Improving the Quality of Peruvian Education (PE-0116), which is currently being implemented, has produced several results that were taken into account in the planning of this operation, such as:

a. The training of preschool and primary school teachers carried out by PLANCAD has shown positive results, including the selection of training providers through a national competition and the system used by the MED to monitor and evaluate the work of these providers, which has led to initial efforts to establish a database of these activities. This database will be an essential training tool in the proposed program.

b. The MED Strategic Planning Unit has undertaken essential activities such as designing and implementing the Planning and Evaluation System. This will allow the MED to do more effective annual planning and to systematically evaluate the results of MED projects.

c. With regard to calls for proposals for teaching materials and equipment, the MED has gained experience in the preparation of technical specifications and the process of issuing calls for proposals; as a result, the MED no longer requires the assistance of the PNUD, which had been requested at the beginning of the implementation stage of the first program. The MED has established committees and evaluation systems that have simultaneously allowed the procurement process to proceed more quickly and have ensured product quality.

d. The activities that were carried out in connection with the circles of quality component will be useful to the program technical team responsible for working on pedagogical and administrative innovation projects, particularly in terms of organization.

4.7 The structure and sizing of the program are compatible with the MED's execution capacity, especially given the experience the MED has accrued in the administration of externally-funded programs and its professional staff, who have

proven efficient in administering this type of operation. Part of this team will make up the core staff of the PCU for the proposed operation. In addition, the MED line units will be strengthened and support will be provided by specialized institutions from outside the MED.

4.8 **Financial viability.** The government has projected the impact of the ongoing expenditures produced by the program for a period of ten years beginning in the year 2000. The country currently spends approximately US$1.6 billion on education. By the year 2010, the improvements in education quality, the increase in secondary school enrollment, and the expansion of the high school level will result in a net increase of 3.6 percent over current spending on basic education taken as a whole. In terms of the priority of education in fiscal policy, projections indicate that public spending on education will continue to represent approximately 20 percent of total spending and 3.1 percent of GDP, the percentage reached in 1999. The low impact of the program on ongoing spending in the educational sector and on fiscal policy is primarily justified by low expected growth in total basic education enrollment, even under very optimistic retention scenarios. Maintaining the level of projected spending per student per year is the most significant factor in sustaining the spending undertaken during the program; this would guarantee that, once the program has been fully implemented, a sufficient level of financing is being maintained in order to maintain improvements in quality. The projected spending per student per year through the year 2010 reflects the level of spending that will be reached at the end of the program on secondary education and on the new high school level. This will ensure that these areas will continue to be financed at the same level of quality that was attained at the end of the program.

4.9 The impact of the investments required to expand the high school level were examined in the context of the history of the government's expenditures in support of investments in the educational sector and its ten-year projections. The budgetary allotment for investments in the educational sector has grown continuously over the last five years, and by 2000 the funds authorized in the capital budget for the sector will reach US$370 million. The Ministry of Education appropriates approximately 49 percent of these funds (US$182 million annually) for the implementation of "national programs" with World Bank and Bank financing, while the remaining funds are used to finance educational programs in various departments. The projected spending to ensure contributions to the program and to ensure the required investments for expanding the high school level will reach a high point of US$156 million in 2004, a figure which falls below the ceiling currently set for the Ministry of Education under the government's overall investment program. The projections therefore indicate that the government will be able to ensure the investment program for expanding the high school level subsequent to completion of the first phase of the Bank's financing. The viability of the program is strengthened by the fact that the projections were performed under the supposition that the sector would experience zero growth after the year 2000.

4.10 **Environmental viability.** The environmental impact of the program will be minimal; consequently, the social and environmental impact report will not be required. In this regard, all necessary actions will be taken to prevent or mitigate any impact on the environment, using the relevant guides prepared by FONCODES.

B. Program benefits

4.11 **Economic benefits.** The proposed program will generate benefits associated with a more highly-educated population, lower secondary school repeater and dropout rates, and students that are better prepared to participate productively in the labor market. A higher level of education – and, in particular, a greater proportion of students that complete secondary school – is associated with higher future income for a greater proportion of the population. A reduction in the repeater and dropout rates will not only result in a greater the likelihood that more students will finish secondary school, but will also lead to savings that could be redirected toward strengthening other programs aimed at improving the quality of education. Meanwhile, a greater curricular emphasis on the development of competencies, as is planned for both the secondary level and the high school level, will result in a population that is both better prepared to participate productively in the labor market and to confront the future challenges of greater diversification in the Peruvian economy.

4.12 **Social benefits.** The program will result in a reduction in the secondary school repeater and dropout rates. In view of the fact that a higher proportion of students who repeat grades and drop out of school are of a lower socioeconomic background, the program will lead to greater equity by raising the probability that these students will complete their secondary educations. In addition, the high school level will lead to great equity among students that choose to pursue higher education. At present, students who can afford private schools that prepare them for entry into universities are in a privileged position.

4.13 **Benefits for secondary school management.** The program will begin to change the current incentive structure in public secondary education. The availability of a competitive fund for innovative pedagogical and administrative projects will make it possible to introduce a pilot incentive program that will motivate the participating schools to redefine their educational mission and to improve school management and teaching methods in pursuit of the same. This, together with better training for administrators, will lead to an improvement in the administrative capabilities of educational institutions.

4.14 **Benefits for high school management.** The introduction of high school as a new level of education will make it possible to implement new organizational methods and teacher hiring practices in the public schools, transforming the profile of the teachers currently involved in the last several years of secondary education. In

addition, the high school level will enable more private institutions to provide educational services. Increasing the significance of graduation from the high school level will result in savings in funds that are currently directed toward preparing students for university (private academies), and further savings will be generated by a reduction in the dropout rate at the postsecondary level.

4.15 **Benefits for vocational school management.** The pilot vocational training project will introduce a new administrative framework emphasizing a stronger and better link between training centers and the organizations that demand the human resources trained by them. This link will result in human resources that are better prepared and better able to participate productively in the labor market.

C. Risks

4.16 **Weakness in certain executing units.** The demands of the program could exceed the capabilities of several entities responsible for implementing the program's various components. In order to reduce this risk, there are plans to strengthen the capacities of these entities through technical assistance, training, and the designing of computer programs and equipment. This support will make it possible to efficiently implement the program activities.

4.17 **Inconsistent readiness to compete for competitive funds.** Incentives for administrative and pedagogical innovation at the training centers will be introduced through competitive funds. There is a possible risk of unequal competition between educational institutions in designing projects, since some may have greater capabilities than others. In order to ensure equal opportunity in this area, the teachers and administrators of all training centers will receive specific training in project design and preparation as part of the training activities.

4.18 **Changes associated with the high school level.** Due to the novelty of the proposal, the implementation of the high school level will entail a special challenge in terms of acclimating the various actors in the educational sector. In addition, its implementation will coincide with the election of a new administration, which may wish to make changes in the conceptualization and scope of this new level of education. This challenge will be addressed by adopting the high school level gradually and monitoring its effects and results on an ongoing basis; these measures will be supported by efforts to build a consensus in civil society, including a promotional campaign on the subject.

4.19 **Vocational training centers lacking the capacity to establish links with the private sector.** The successful implementation of a new type of vocational training is largely dependant on the relationship that is established with the private sector. Participating educational institutions may lack the capacity and the flexibility to establish these links. This risk will be addressed by beginning with the pilot experiences of training centers that already have relationships with the private

sector and have expressed greater interest in adopting new methods of teacher recruitment. An evaluation of the impact and results of these pilot experiences will provide information about carrying out future professional training activities. In addition, as with the activities concerning the secondary level and the high school level, a marketing campaign will be undertaken about the changes that will take place in vocational training.

MILESTONES[1] FOR THE PROCESSING OF THE SECOND PHASE OF THE PROJECT

Although the activities to be performed during the second phase will be a continuation of those performed during the first phase, their innovative nature (changed curriculum, new model of learning, educational innovations) will occasionally require the timely preparation of evaluation reports aimed at improving learning, increasing the effectiveness of second phase activities, and facilitating the introduction of any needed changes or adjustments. Information will also be required on the accomplishment of the physical and investment goals of each subcomponent, since the success of the program depends on simultaneous progress in all areas.

Consequently, the program described in this document will support the first phase of strengthening the quality of secondary education in Peru. The second phase will be processed once:

1. Seventy-five percent of the loan funds corresponding to components 1 and 2 (Institutional Strengthening and Improving the Quality of Secondary Education, respectively) have been disbursed;

2. At least 50 percent of the funds earmarked for each of the subcomponents of components 1 and 2 have been disbursed;

3. The physical goals agreed upon, as described below, have been accomplished; and

4. The respective reports on project impact and methodology agreed upon, as described below, have been submitted to the government and the IDB.

Evaluation Meeting

The meeting to evaluate the results of the second year will serve as the starting point for planning the evaluation of program goals. During this meeting, the date on which the evaluation is expected to be conducted will be determined. Based on the program's projected implementation schedule, the evaluation is expected to take place during the last four months of year three.

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[1] The physical milestones constitute approximately 65 percent of the goals for each activity during the first phase.

Goals	Justification for selection of the goal
Distribution of textbooks and educational materials and equipment to teachers, students, and educational institutions: 1. At least 720,000 textbook modules have been distributed to secondary students. 2. At least 40,000 manuals have been distributed to teachers and administrators. 3. 2,500 libraries have been established in educational institutions. 4. 4,000 science and other subject modules have been distributed to educational institutions. 5. 1,050 audiovisual modules have been distributed to educational institutions.	The availability of textbooks, materials, and equipment is a key element in the implementation of a new secondary school curriculum, given that these items are needed in order to change the way in which the disciplines are taught, the activities performed by students, and the way in which students learn.
Training of teachers and administrators: 1. At least 42,000 secondary school teachers and administrators have been trained. 2. An evaluative study of the impact and methodology of the training program, including recommendations on how to improve the training activities during the second phase, has been made available. The study will place particular emphasis on: • The impact of training activities on student learning; • The breadth and depth of changes in classroom teaching practices; • The compatibility between the new teaching practices introduced by the training and the new curricular objectives and subject matter; • Changes in the use of classroom time; • Changes in the physical layout of classrooms; • The increase in student opportunities to participate in class; • The effectiveness of the training strategy at each stage.	The implementation of a more participatory model of learning and a new curriculum is dependent on the ability of teachers who have changed their pedagogical approach to be effective in the classroom.
Infrastructure: 1. At least 1,800 have been renovated, replaced or expanded. 2. The criteria specified in the Operating Regulations concerning the selection of school sites to be modified have been followed.	The new model of learning and curriculum require certain minimum physical conditions in order to be implemented.

Goals	Justification for selection of the goal
Educational innovations: 1. At least 290 innovative administrative and pedagogical/curriculum projects have been financed. 2. At least 116 of the above must be innovative school management projects. 3. Action has been taken to disseminate information to other schools about the most interesting projects funded by the program.	The development of innovative school management and pedagogical/curriculum projects through the use of a competitive fund is a key element in the strategy for promoting greater school autonomy, given that this method motivates educational institutions to achieve particular objectives by means of professional incentives. The dissemination of information about these experiences will help to broaden their scope.
Educational Information technology: 1. Information technology equipment has been installed in at least 200 classrooms. 2. An evaluative study of the impact and methodology of introducing information technology into the secondary schools, including recommendations on how to improve the training activities during the second phase, has been made available. The study will place particular emphasis on: • The extent to which information technology has been integrated into the learning process and the curriculum; • The preparation of teachers to effectively use this technology; • The impact on student learning; • The cost-effectiveness of the investments made; • The effectiveness of the hardware and software maintenance plans.	In addition to installing computers, it is necessary to evaluate the impact of this action in terms of student learning, the preparation and motivation of teachers, the participation and commitment of the community, and the cost-effectiveness of the investment.
Academic achievement: 1. The academic achievement examination has been administered to a sample group of second- and fourth-year secondary school students. 2. The results of these tests have been disseminated to the authorities, specialists, and the public.	The administration of the academic achievement examinations and the dissemination of their results are key elements in the strategy for focusing effort on improving the quality of secondary education.

RELATIONSHIP BETWEEN THE PROBLEMS OF THE EDUCATION SECTOR AND THE STRATEGIES AND ACTIVITIES OF THE PROGRAM

ASSESSMENT	STRATEGIES	COMPONENTS
SECONDARY LEVEL		
• Over-elaborate and encyclopedic curriculum • Insufficient access to educational materials • Insufficient continuing education for teachers in teaching methods and methodology • Insufficient support material for teachers • Deteriorating infrastructure • Insufficient equipment • Little school autonomy • Low internal efficiency • Academic achievement in its initial stage • Insufficient coverage in rural areas • Outdated teacher training	• Implementation of a new curriculum • Distribution of textbooks and educational materials • Training of teachers and administrators • Distribution of materials to teachers • Improvements in infrastructure • Equipment • Educational innovation projects • Improvements in quality, reducing the repeater and dropout rates • Strengthening academic achievement • Other donors • Other donors	Component 1: Institutional Strengthening Component 2: Improving Quality
HIGH SCHOOL LEVEL		
• Poor preparation for university • Poor preparation for the world of work	• Implementation of a new level of education specifically oriented toward connecting secondary education to postsecondary education and the world of work	Component 3: Initial Implementation of the High School Level
VOCATIONAL TRAINING		
• Poor connection to the private sector • Teachers with little practical knowledge • A lack of uniformity in information concerning the quality of vocational training	• New administrative framework/connection with the private sector • Hiring of new teachers/training • Accreditation of vocational training	Component 4: Pilot Vocational Training Plan

LOGICAL FRAMEWORK

TIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
l human resources.	1.1 An increase in the population's number of years of education. 1.2 An increase in academic performance. 1.3 An increase in the number of students who do not need further preparation in order to begin postsecondary studies.	1.1 Statistical reports. 1.2 Performance assessment system.	An increase in funding to education. Continuity in the process of reforming and modernizing the educational system.
S			
An improvement in the ıdary education. Completion of the first plementation of the high Implementation of the al training project.	1.1 Implementation of new curriculum. 1.2 Teachers apply new instructional methodologies. 1.3 A decrease in the dropout rate from 6.20 to 4.90 (8%) over five years and a decrease in the repeater rate from 8.95 to 7.87 (9%). 1.4 An improvement in the autonomous administration of a group of secondary schools and an increase in the participation of teachers and parents. 1.5 Changes in the administration of technical/professional education. 1.6 Implementation of a modular curriculum in professional training schools.	1.1 Distribution of student textbooks and teacher manuals. 1.2 Statistical reports. 1.3 Educational statistics. 1.4 Direct surveys. 1.5 Program monitoring and evaluation reports.	An increase in funding to education. Continuity in the process of reforming and modernizing the educational system. Companies establish ties with the vocational schools.

TIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
f textbooks, materials, nent.	1.1 **P1:** 1,100,000 textbook modules, 60,000 manuals for teachers and administrators of secondary schools, 3,700 libraries, 2,400 science modules, 3,700 social science modules, 2,500 video modules, and 1,500 television modules. 1.2 **P2:** 56,000 textbook modules, 8,600 teacher manuals, 267 libraries, 200 audiovisual modules, and 267 technology modules. 1.3 **P3:** 2,600 curricula, 2,600 catalogues of professional degrees, 2,600 teacher manuals, 2,000 equipment manuals and practice books for students.	1.1 Samples of educational materials. Receipt for delivery to educational institutions.	Educational materials are used properly. Trained teachers apply the new curriculum and instructional methodologies. Teachers and parents participate effectively. Companies participate.
rograms established and g.	2.1 **P1:** 65,000 teachers and administrators. 2.2 **P2:** 5,400 teachers and tutors. 2.3 **P3:** 1,300 teachers, 35 administrators, and 35 coordinators.	2.1 Annual reports indicating the number of people who attended the courses. 2.2 Annual report on the application of knowledge by teachers. 2.3 Monitoring and evaluation system.	The knowledge acquired is applied.
al institutions renovated oning.	3.1 **P1:** 2,800 renovated, expanded or replaced classrooms. 3.2 **P2:** 111 renovated, expanded or replaced classrooms. 3.3 **P3:** 5 equipped technical/ professional training centers.	3.1 Verification that the work has been completed. 3.2 Annual maintenance plans.	The maintenance is performed according to a plan.

TIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
ce assessment system ed and results ed.	4.1 **P1:** 18,000 second-year students and 18,000 fourth-year students passing an examination.	4.1 Publication of the results.	
ation of educational	5.1 **P1:** 450 projects for secondary education. 5.2 **P3:** 5 administrative projects for professional education.	5.1 Reports on the funded projects.	The educational institutions and teachers are interested in participating. The applied incentives are efficient. Companies establish ties with technical/professional schools.
al high school n established and eminated.	6.1 75,000 high school students having taken the examination.	6.1 Publication of the results.	
f educational n technology rofessional training	7.1 **P1:** 3,000 computers, 300 network servers, 300 software packets for 300 schools, and 50 virtual secondary schools. 7.2 **P2:** 6,400 computers, 200 audiovisual modules, and 267 technology modules for the high school level. 7.3 **P3:** 10 professional training modules.	7.1 Receipt of delivery to educational institutions. 7.2 Verification of equipment use.	The equipment is used properly.
ation of marketing nd program information n plan.	8.1 Actions to: **P1:** introduce incentives for pedagogical and administrative innovations at the secondary level; performance evaluation; **P2:** introduce high school as a new level of education; **P3:** introduce the accreditation system for professional training institutions.	8.1 Sample of the material produced and payment receipts.	The content of the campaigns is appropriate for various interest groups of the population, and information is distributed in a timely manner.
ation of institutional ng plan.	9.1 Seven divisions equipped and staffed with trained personnel.	9.1 Payment receipts and list of training course participation.	The various entities are interested in participating.

VE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
n system for training centers	10.1 688 offered courses of study and 230 public institutions (80% of total), as well as offered 748 courses of study and 510 private institutions (100%) having passed the accreditation process.	10.1 Publication of the accredited institutions.	The professional training centers participate.
lity of secondary	Consolidate the process that was initiated and continue with the delivery of educational inputs.	Progress reports. Signed contracts. Sample of educational materials and receipt of delivery to educational institutions.	

PROGRAM TO IMPROVE THE QUALITY OF SECONDARY EDUCATION – PHASE II
COSTS TABLE
(in US$ millions equivalent)

	EXPENDITURE CATEGORY	IDB	LOCAL	TOTAL	%
1.	**ADMINISTRATION**	**895**	**545**	**1,440**	**0.9**
2.	**DIRECT COSTS**	**96,357**	**52,879**	**149,236**	**89.4**
2.1	**Institutional Strengthening**	**3,047**	**1,855**	**4,902**	**2.9**
2.1.1	Promotion	758	462	1,220	0.7
2.1.2	Strengthening the divisions	1,631	993	2,624	1.6
2.1.3	System of analysis and evaluation	658	400	1,058	0.6
2.2	**Secondary Schools**	**93,310**	**51,024**	**144,334**	**86.4**
2.2.1	Textbooks, materials, and equipment	21,474	13,078	34,552	20.7
2.2.2	Training	2,157	19,411	21,568	12.9
2.2.3	Infrastructure [1]	66,571	16,643	83,214	49.8
2.2.4	Educational innovations	1,865	1,135	3,000	1.8
2.2.5	Educational information technology				
2.2.6	Performance assessment	1,243	757	2,000	1.2
	Subtotal prior to incremental costs	**97,252**	**53,424**	**150,676**	**90.2**
3.	**Incremental costs of the operation**		**1,676**	**1,676**	**1.0**
	Subtotal	**97,252**	**55,100**	**152,352**	**91.2**
4.	**Unanticipated costs**	**1,748**	**728**	**2,476**	**1.5**
5.	**Finance costs**	**1,000**	**11,172**	**12,172**	**7.3**
5.1	Interest		10,522	10,522	6.3
5.2	Credit commission		650	650	0.4
5.3	FIV	1,000		1,000	0.6
	TOTAL	**100,000**	**67,000**	**167,000**	**100.0**
	Percent by source	60	40	100	

[1] The investment in infrastructure is broken down as follows:
Replaced or expanded classrooms: 20%
Renovated classrooms: 34%
Complementary units: 46%

PHYSICAL GOALS OF THE PROGRAM – PHASE II

Components and subcomponents	Physical goals (units)
SECONDARY SCHOOL	
Textbooks, materials, and equipment	
Student textbook modules	934,000
Teacher manuals	40,500
Libraries	3,100
Science modules	2,200
Modules in other subjects	3,100
Audiovisual modules (TV)	1,200
Audiovisual modules (VHS)	2,800
Training	
Teachers and administrators trained	43,300
Infrastructure	
Replaced/expanded classrooms	7,600
Renovated classrooms	400
Educational innovations	
Innovative curricular projects	330
Innovative school management projects	220
Educational information technology	
Computers	0
Teachers trained	0
Performance assessment	
Examinations administered to 4^{th} grade	1
Examinations administered to 8^{th} grade	1

IDB – MED PROJECT 2000 – 2002: PROCUREMENT TABLE

Item	Quantity	Procurement method	Total Amount (in US$ millions)	Source of financing		Six-mont which me will be
				TP	IDB	
TRUCTURE			**44,141**			
tion and/or replacement of 240 classrooms; n of 8,406 classrooms in 480 secondary schools schools. No project will exceed US$300,000.	480 projects at educational institutions.	LCB	44,141	25%	75%	2000 I 2001
MENT			**66,227**			
of audiovisual and video modules to 6,084 y schools and 200 high schools.	6,284 audiovisual modules and 6,084 video modules.	ICB	2,289	30%	70%	2000 I 200
of computer modules to 300 secondary schools igh schools.	620 servers, 9,400 PCs, 320 scanners, printers, and cables.	ICB	18,128	30%	70%	2000 I 200
of teaching materials to 6,084 secondary schools.	6,084 hands-on and science modules.	ICB	9,078	30%	70%	200 200
ion technology equipment for MED system.	5 PCs, 2 printers.	DA	22	30%	70%	200
of technology modules to 267 high schools.	267 modules.	ICB	5,340	30%	70%	2000 I 200
quipment sets in selected training centers.	5 selected training centers.	ICB	3,290	30%	70%	2000
HINGS AND FIXTURES			**4,009**			
ent of modules for new and renovated secondary d high school classrooms (40 desks and 40 e teacher desk and chair).	8% of value of infrastructure.	ICB	4,009	16%	84%	200 200
TIONAL MATERIAL			**26,071**			
of student and teacher textbook modules and rinciple, and library modules to 100% of teachers, and secondary schools.	2,003,182 textbook modules, 89,768 teacher modules, 6,084 principle and library modules.	ICB	22,371	0%	100%	200 200

Item	Quantity	Procurement method	Total Amount (in US$ millions)	Source of financing		Six-month which me will be p
				TP	IDB	
of student textbook modules, library modules, activity books, and teacher manuals to high	56,047 textbook modules, 267 library modules, 238,357 activity book modules, and 8,675 teacher manuals.	LCB/ICB	3,404	0%	100%	2000 I 200
of basic textbooks, magazines, manuals, and on technology training manuals to selected enters.	5 selected training centers.	LCB	222	0%	100%	2000
ricular structures, catalogue of publications on and in print, methodological guides and eous material.	1,214 public schools and 535 private schools.	DA	74	16%	84%	2000
LTING SERVICES			**6,767**			
ion of construction (according to project on schedule). Includes cost of basic studies.	480 reports.	PC	6,621	25%	75%	2000 I 200
al training computer system, software ment, and information manuals.	1 system, 1 software system, and manuals for each.	DA	124	30%	70%	200
			119,136			

ternational competitive bidding for goods and consulting services valued at more than US$250,000
ternational competitive bidding for civil works valued at more than US$3,000,000.

s below those specified above will be subject to domestic regulations. Law 26850 and associated regulations, approved by virtue of Supreme Decree 0

- Local competitive bidding for goods valued at more than S/350,000
- Public call for proposals for services and consulting services valued at more than S/150,000
- Direct awarding of contracts for goods and services valued at less than S/350,001.

PROPOSED RESOLUTION

PERU. LOAN ____/OC-PE TO THE REPUBLIC OF PERU

(First Phase of the Program to Improve the Quality of Secondary Education)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Peru, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the First Phase of the Program to Improve the Quality of Secondary Education. Such financing will be for the amount of up to US$120,000,000, from the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the "Terms and Financial Conditions" and the "Special Contractual Conditions" indicated in the Executive Summary of the Loan Proposal.