Document of The World Bank

Report No: 20334-PAN

## PROJECT APPRAISAL DOCUMENT

## ON A

## PROPOSED LOAN

## IN THE AMOUNT OF US\$35.0 MILLION

#### TO THE

## **REPUBLIC OF PANAMA**

## FOR A SECOND BASIC EDUCATION PROJECT

August 10, 2000

Human and Social Development Group Central America Country Management Unit Latin America and the Caribbean Regional Office

## CURRENCY EQUIVALENTS

(Exchange Rate Effective July 14, 2000)

Currency Unit = Balboa B/1.00 = US\$ 1.00 US\$ 1 = B/1.00

> FISCAL YEAR January 1 December 31

## ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CEFACEI	Community and Family Center for Initial Education (Centro Familiar y
	Comunitario de Educación Inicial)
COPAMACE	Parents Committee to administer the CEFACEI (Comité de Padres y
	Madres de Familia Administradores de los CEFACEIs)
DC	Directorate of Curriculum, MIEDUC (Dirección de Curriculum)
DGE	Directorate of General Education, MIEDUC (Dirección General de
DGFDI	Educación
	Directorate of General Finance and Institutional Development, MIEDUC
DIE	(Dirección General de Finanzas y Desarrollo Institucional)
FIS	Dirección de Educación Inicial (Initial Education Directorate of MIEDUC)
IED	Social Investment Fund (Fondo de Inversión Social)
GOP	Initial Education Directorate (Dirección de Educación Inicial)
IFARHU	Government of Panama
	Institute for Human Resource Development (Instituto Para la Formación y
LSMS	Aprovechamiento de Recursos Humanos)
MEF	Living Standards Measurement Survey
MIEDUC	Ministry of Economy and Finance
NGO	Ministry of Education
PCU	Non-governmental organization
PRODEI	Project Coordination Unit
TELEBÁSICA	The Mexican non-formal initial education project
UNDP	Distance secondary education by television
	United Nations Development Programme

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## PANAMA PA/BASIC EDU II

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MAP(S)

## PANAMA

PA/BASIC EDU II

## **Project Appraisal Document**

Latin America and Caribbean Region LCSHE

		LUSHE				
Date: August 10, 2000		Team I	eader: Carl	os A. Rojas		
Country Manager/Director: D-M Dowsett-Coirolo			Sector Manager/Director: Xavier E. Coll			
Project ID: P052021		Sector(s): EP - Primary Education				
Lending Instrument: Spe	cific Investment Loan (S	SIL) Theme	(s):			
		Povert	Targeted I	ntervention	: Y	
Project Financing Data		······				
🛛 Loan 🗌 Cred	lit 🗌 Grant	🗌 Guaran	tee 🗌 C	Other (Specif	fy)	
For Loans/Credits/Others	<u>s:</u>					
Amount (US\$m): 35.0						
Proposed Terms: Fixed-	Spread Loan (FSL)					
Grace period (years): 5			ears to matu	<b>irity:</b> 15		
Commitment fee: 0.85%		: 9	%			
Front end fee on Bank lo	an: 1.00%					
hanna an	urce		Local	Fo	reign	Total
GOVERNMENT			24.00	D	0.00	24.00
IBRD			17.00	0	18.00	35.00
Total:	al: 41.00 18.00 59.00					
Borrower: REPUBLIC O	F PANAMA		·····			
Responsible agency: M	NISTRY OF EDUCAT	TION (MIEDUC)				
	0 11 07 D1:C.					
Address: Ave. Justo Arose Contact Person: Lic. Alber		o ron, ranama				
Tel: (507) 227-1462		07) 227-1473		Email:		
		01) 221 1110		Lindii		
Other Agency(ies): Institute for Human Resou	raa Devalarmant (IEAE					
Estimated disbursements			······································			
FY 20		2003	2004	2005		
the second s	3.5 7.0	10.5	10.5	3.5	na na sen de la sen L	
	3.5 10.5	21.0	31.5	35.0		
Project implementation						<u></u>
Expected effectiveness of	•	pected closing da	n <b>te:</b> 06/30/	2005		
OCS PAD Form: Rev March, 2000						

## A. Project Development Objective

### 1. Project development objective: (see Annex 1)

The objectives of the project are to: a) improve the quality and efficiency of basic education in the country; b) improve equity of access to preschool, primary and lower secondary education for children in rural and poor urban areas; c) expand the coverage of preschool and initial education through community-based non-formal education models; and d) strengthen the planning, supervision, and policy-making capacity of the Ministry of Education (MIEDUC), by expanding the actions undertaken under the ongoing first Basic Education Project.

### 2. Key performance indicators: (see Annex 1)

The key performance indicators will be lower levels of extreme poverty and greater efficiency and higher completion rates in primary and lower secondary schools. All shanty schools (*escuelas ranchos*) will be replaced, 1,515 classrooms will be rehabilitated and 30 *Telebasica* pilot schools will be operating. Approximately 240,000 multi-grade students and 40,000 lower secondary students will receive textbooks and other educational materials. Students in indigenous communities (37,000) will receive bilingual materials. Community and Family Centers for Initial Education (CEFACEIs will enroll 12,000 new children, and 6,000 rural parents will be trained by 400 new mother leaders in home-based initial education.

## **B. Strategic Context**

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)Document number: 18421Date of latest CAS discussion: 11/19/98

The proposed project will support the CAS objectives of (i) poverty reduction and (ii) enhancement of human resource development. The project aims to correct inequities in social spending by targeting investments in early and basic education and ensuring that educational programs reach the most destitute groups of Panamanian society many of whom live in conditions of relative isolation and neglect in indigenous, rural and marginal urban communities. The project will support expansion of initial and preschool education services to children of poor families who do not have access to early educational experiences and who often have the greatest difficulties in adjusting, remaining and completing basic education. By supporting models of non-formal early childhood interventions and preschool education which involve the family and the community, the project would increase awareness of child development needs and foster the creation of an enriched community and home environment for child growth and development. By supporting institutional development, the project would assist the government to strengthen its capacity to replicate project activities in other areas and implement its decentralization strategy.

### 2. Main sector issues and Government strategy:

**Equity in access to basic education.** While 90 percent of primary school age and 56 percent of secondary school age children are enrolled in schools, access to school is inequitable across the school-age population. Inequities in access and completion of primary and basic school are most acute for children living in indigenous, rural and marginal urban communities. The non-indigenous population completes an average of four more years of schooling compared to the indigenous population. Among indigenous groups, *Ngobe-Buglé*, the largest indigenous community in the country, averages less than three years of schooling. About 17 percent of indigenous children aged 6-11 are not enrolled in school. In rural areas, children who

complete the first grades of basic education in multigrade schools (1-6) are unable to continue with the remaining basic grades (7-9) because there are no lower secondary schools in their communities. The government has requested the Bank's support for a pilot *Telebásica* project to deliver lower secondary education through distance education methods to rural communities.

**Indigenous population and bilingual education.** Indigenous groups comprise approximately 8 percent of the total population in Panama or about 200,000 people, and are distributed through four of the nine provinces in about eight different ethnic groups, with relatively heavier concentrations in the regions of Bocas del Toro and San Blas.

Indigenous groups are among the poorest in the country and have the least access to quality educational services. A majority of them live in the Western provinces of Bocas del Toro, Chiriquí, Coclé and Veraguas; about one-third are in the Eastern region of San Blas and the jungles of Darién province, near the Colombian border; and about 10,000 are reported to live in the cities of Panama and Colon. According to recent data from the Living Standards Measurement Study (LSMS) study (Panama Poverty Assessment. *Priorities and Strategies for Poverty Reduction*. The World Bank, April 2000, 1999), 95 percent of the residents of indigenous areas of the country fall below the poverty line, and 86 percent live in conditions of extreme poverty, with levels of consumption below the minimum needed to meet the recommended daily caloric requirements. Poverty in Panama is deepest and most severe in indigenous areas. About 50 percent of indigenous children under the age of five suffer from malnutrition compared to 16 percent for all Panamanian children. Although small in absolute numbers, indigenous communities comprise nearly one-fourth of Panama's poor and one-third of the extreme poor.

Findings from the Poverty Assessment point to the importance of investing in bilingual education and educational materials for indigenous populations. The study found that language ability, namely Spanish, appears to be an important determinant of educational attainment. Monolingual indigenous speakers are among the poorest and average less than one year of schooling. This compares with an average of 7-9 years for the bilingual and Spanish speaking ethnic indigenous counterparts. Only half of the monolingual indigenous speaking children aged 6-11 are currently enrolled in primary schools, thus suggesting an absence of bilingual services at the primary level. Access to educational materials and textbooks is limited in indigenous communities. Only 52 percent of indigenous children in primary schools reported having books compared to 91 percent for the non-indigenous population.

Although the new Education Law of 1995 introduced a provision for bilingual education for indigenous communities, the Government has not introduced bilingual education programs yet. The Government's ten-year educational strategy outlines bilingual and inter-cultural education as one of the 25 priority projects proposed for implementation. As with the first Basic Education project, the second Basic Education project will assign high priority to investments in localities with a high percentage of indigenous populations. Moreover, the project will be guided by findings from social assessments that examine the social and cultural needs of indigenous populations. The social assessment that was conducted as part of the preparation of the project has already provided the grounds for a more comprehensive discussion of an educational development plan for that segment of the population and contributed to the design of the project components.

**Government Strategy.** The Government's ten-year strategy for the education sector, 1997-2006 (*Estrategia Decenal de Modernización de la Educación Panameña 1997-2006*, Ministerio de Educación, Octubre 1996.) recognizes four critical issues that need to be addressed: (i) inequity in access to school, permanence and continuity for the less privileged groups in rural, indigenous and marginal urban populations; (ii) poor quality of education reflected in rote learning, irrelevance of the school, poorly trained teachers, lack of textbooks and dilapidated infrastructure; (iii) obsolescence of the administrative model characterized by centralized, hierarchical and bureaucratic administration; and (iv) poor distribution of financial resources, even though educational spending has increased from 5.6 percent to 6.1 percent of

GDP in the last ten years.

Consistent with this assessment of critical issues, the Government's Strategy outlines four major policy objectives and specifies that actions will be targeted to the poorest population groups and those with the greatest educational needs.

- **Democratization of Education.** Ensure equality of access to basic education for all children, especially the poorest, with quality and excellence comparable to the rest of the country. Provide regular or non-regular preschool education services for all children, giving highest priority to indigenous, rural and marginal urban areas.
- Quality Improvement. Disseminate values of a culture of peace and national identity; stress learning of science, technology and innovation; provide staff development; promote educational research, evaluation and innovation; and introduce educational technology and new concepts of educational supervision.
- Educational Planning and Modern, Decentralized, Efficient Management. Foster educational activities at the school level, with autonomy and flexibility for creative participation by educators, students, families and the community in educational and administrative decisions. Provide professional incentives to teachers, more time for learning, and rehabilitation and maintenance of school infrastructure. Currently, the MIEDUC is in the process of analyzing legislation aimed at strengthening the management of educational services at the provincial and local levels.
- Expanded participation by the family and community in education. Integrate the educational community through associations, collaboration centers, councils, boards, committees and other participation mechanisms. Provide orientation and training to parents in all local communities.

**The First Basic Education Project.** Through the Basic Education Project approved in 1996, the Bank is supporting the following activities which address key aspects of the government strategy for the sector:

- Government initiatives to expand coverage of preschool education to rural and marginal urban areas through the Community and Family Centers for Initial Education (CEFACEI), a community-based non-formal education model using local promoters and especially designed educational materials in community-provided facilities;
- Home-based initial education (Mother-to-Mother) programs, targeted to rural and indigenous communities, to provide training and educational materials to parents of children under 6 years of age to improve their child rearing practices and help them guide their children's early mental, physical and social development;
- Teacher training activities designed to reach all multigrade teachers in the country;
- Educational materials support to provide classroom libraries for all multigrade classrooms in the country, and textbooks for all primary and lower secondary (grades 7-9) students in targeted townships (*corregimientos*);
- Student assessment and an institutional strengthening program aimed at improving the educational system as a whole;
- Infrastructure investment to build and rehabilitate primary schools; and

• Scholarship programs to facilitate access of children from the poorest families to primary and lower secondary schools. The program is administered by the Institute for Human Resource Development (IFARHU).

The Government of Panama (GOP), with Bank support through this project, has focused educational investments in communities with the worst indicators of socioeconomic and educational conditions in an effort to alleviate poverty by improving the quality and efficiency of basic education. The first project targeted the 185 poorest *corregimientos* (out of 510), which included the poorest rural and indigenous communities. The project is providing institutional strengthening to develop the planning and policy-making capacity of the MIEDUC, with special emphasis on optimization of intra-sector budget resource allocation. The preschool and initial education components were designed as pilots to test the functionality and effectiveness of the models.

## 3. Sector issues to be addressed by the project and strategic choices:

The three main sector issues to be addressed by the proposed project include expanding access to education, improving educational quality; and strengthening organizational and management capacity. The project will strategically address these issues in the following ways:

#### Access to Education

- Focus primarily on reducing poverty by providing equitable access to quality basic education, which includes pre-school, primary and lower secondary education, for children of the most vulnerable population groups not fully covered by the first Basic Education Project.
- Strengthen and expand programs of initial and preschool education to reach children of indigenous communities and poor rural and marginal urban areas to improve their chances of entering and completing basic education successfully.
- Support the introduction of distance education methods (Telebásica) to provide access to lower secondary education for students in remote rural areas.

## Educational Quality

- Contribute towards the elimination of dilapidated shanty schools (*escuelas-ranchos*) in poor communities by providing adequate school buildings with appropriate learning and sanitary conditions.
- Address the problem of poor educational quality by reinforcing the policy of providing bilingual materials, school libraries, and other educational materials, to all students in public primary and lower secondary schools.

## Organization and Management

• Continue supporting MIEDUC in its efforts to: (i) implement a management information system, including the design and implementation of a financial and administrative information system; and (ii) establish and implement a National Assessment System aimed at monitoring the quality of student learning in mathematics and language for third and sixth grade students.

• Support Government policies aimed at strengthening the decentralization of administrative and education activities by providing training and technical assistance to managerial and technical staff at the central and local levels.

## C. Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

Component	Sector	Indicative Costs (US\$M)	% of Total	Bank- financing (US\$M)	% of Bank- financing
Component 1: Quality improvement of Basic Education. To enhance the quality of the teaching/learning environment in primary and lower secondary schools of rural and marginal urban communities. Subcomponents:	Primary Education		0.0		0.0
a. Educational Materials. Student textbooks and school libraries, charts, maps, bilingual textbooks and other instructional classroom materials and teacher training for primary and lower secondary schools in targeted areas.	Primary Education	8.40	14.2	7.80	22.3
b. Scholarship Program. About 6,000 poverty-based scholarships per year for primary and secondary students in public schools (60 percent for rural and indigenous students).	Secondary Education	9.40	15.9	0.00	0.0
c. Pilot Project of Distance Basic Education (Telebásica). Delivery of lower secondary education (grades 7-9) to students in rural areas where no secondary schools exist.	Secondary Education	4.95	8.4	1.00	2.9
d. Rehabilitation of educational infrastructure. To replace existing shanty school buildings (escuelas ranchos) and accommodate growing enrollments in primary and lower secondary schools.	Primary Education	22.20	37.6	19.50	55.7

Component 2. Expansion of the Non-Formal Preschool Education Program. About 600 new community initial education centers (CEFACEIs) and 400 home-based initial education program groups and training of promoters in rural and marginal urban areas.	Other Education	6.20	10.5	3.10	8.9
Component 3. Institutional Strengthening of the Education System. Support the decentralization process at the regional and school levels through training and technical assistance to decentralized offices of MIEDUC and for expansion of management information system and national assessment system.	Other Education	5.20	8.8	1.80	5.1
Component 4. Project Administration.	Other Education	2.30	3.9	1.80	5.1
Total Project Costs		58.65	99.4	35.00	100.0
Front-end fee	Front-end fee		0.6	0.00	0.0
Total Financing Required		59.00	100.0	35.00	100.0

### 2. Key policy and institutional reforms supported by the project:

Three key education policies will be supported by the project: (a) reallocation of educational investments to benefit the poor; (b) decentralization; and (c) strengthening the MIEDUC capacity for sector management. Within this framework, the project will help implement the following education policy reforms:

- Community-based preschool education. Expansion of preschool education coverage to reach children in poor rural and marginal urban communities through tested non-formal educational delivery models with community participation.
- **Bilingual intercultural education.** Introduction of bilingual teaching methods and educational materials and appropriate curricula to facilitate literacy and the acquisition of basic educational skills for children of indigenous communities while preserving their cultural values and identities.
- Distance methods for rural secondary education. Introduction and testing of distance education methods via television to reach students in remote rural communities who want to enroll in lower secondary education classes but have no access to secondary schools.
- Decentralization of school and regional education management. Implementation of the new educational decentralization policy by strengthening the regional education offices of the MIEDUC and encouraging broader parent and community participation in school decisions.
- Quality improvement of basic education. Provision of quality inputs to enhance educational effectiveness and student achievement in the poorest communities through school libraries, textbooks and educational materials, provision of scholarships to promote school attendance and retention, and

rehabilitation of physical infrastructure. Establishment and implementation of a National Assessment System to monitor student learning.

## 3. Benefits and target population:

- The project will benefit approximately 280,000 children enrolled in primary and lower secondary schools. This represents about 60 percent of total enrollment in basic education The target population for the infrastructure, educational materials and institutional strengthening components will be all the students in public primary and lower secondary schools in the poorest areas of the country as defined by the new poverty map developed by Ministry of Economy and Finance (MEF) with data from the 1998 LSMS study, combined with data on educational deficiencies. Similarly, the target population for the scholarships and the preschool and initial education component would be selected according to the same map.
- Replacement and rehabilitation of physical infrastructure will target priority areas in all districts of the country, as determined by the school map and inventory of physical infrastructure conditions now being assembled under the first project. Approximately 1,515 classrooms will be rehabilitated along with about 318 existing sanitary modules. This will be added to approximately 1,500 classrooms in the process of rehabilitation under the first project. Additionally, a preventive maintenance system will be established, with community participation, to cover the approximately 2,592 project classrooms and special modules.
- Approximately 12,000 additional preschool-age children in disadvantaged rural communities will benefit from the expansion of the CEFACEI program which will reach about 600 new community and family centers. This will raise preschool coverage from 31 percent to 45 percent of the age group 4-5. A social assessment of the CEFACEI and the initial education programs in the first project has shown a high degree of participation and acceptance in the rural and marginal urban communities.
- Another 12,000 children, or 3.8 percent of the population under six years of age, will benefit indirectly from the targeted expansion of the home-based initial education program to 400 new groups including 400 mothers in small, hard-to-reach rural communities. While the social assessment showed that an average of 17.4 mothers had enrolled in each group, about 23 percent dropped out before completing the program due to pressing domestic responsibilities. Participating mothers and mother leaders acknowledge the value of the program and the benefits obtained from learning new ways of improving child-rearing, housekeeping, nutritional habits and overall self-esteem. The program will be fine-tuned based on the lessons learned in the first project. Among the key areas that have been highlighted for improvements include: fostering active involvement by fathers and other family members; and strengthening operational coordination with community organizations and programs working on child health, culture and income generation.
- Approximately 2,200 children in rural communities, who currently finish primary education in multigrade schools but do not have access to lower secondary education to complete the basic cycle, will benefit from the pilot project of Telebásica. Successful implementation of the pilot could allow later expansion to increase the coverage of first-cycle secondary education, which now stands at 64 percent.
- Approximately 280,000 children of lower income families in the poorest districts, including about 37,000 indigenous children, or 60 percent of the student population enrolled in existing public primary and lower secondary schools, will benefit from access to educational and bilingual materials.

• The GOP has adopted the targeting methodology successfully applied in the first Basic Education project, which focuses project investments on the poorest communities and those with significant indigenous populations. The methodology, which was developed jointly by the GOP and the Bank, is described in Annex 2.

#### 4. Institutional and implementation arrangements:

Implementation period: Four years (2001-2005)

Executing agency: Ministry of Education (MIEDUC)

**Project Coordination.** The project would be implemented by the Ministry of Education (MIEDUC) under the same institutional and operational arrangements that have been established for implementation of the first basic education project. Financial and administrative responsibility rests primarily with the Project Coordination Unit (PCU) operating under the office of the Minister of Education. IFARHU will be responsible for implementation of the scholarship component.

The PCU, which is now in charge of coordinating implementation of the First Basic Education project, will also be responsible for follow-up, monitoring and evaluation of project implementation, and will work in close coordination with the MIEDUC line units responsible for implementation of the components and with the MIEDUC regional offices, to ensure that actions are taken in accordance with the Project Implementation Plan (PIP) and project targets of physical progress are accomplished.

**Project Implementation Arrangements.** Implementation of the infrastructure component, including identification of school buildings to be replaced and rehabilitated, will be the responsibility of the office of the Regional Directors of Education of MIEDUC, in coordination with the National Infrastructure Directorate and the General Directorate of Finance and Institutional Development (DGFDI). It has been agreed that either an extension of the current agreement between the Ministry of Education and FIS, or a signed construction implementation agreement between the MIEDUC and another entity acceptable to the Bank, is required as a condition for effectiveness.

The Initial Education Directorate (IED), under the General Directorate of Education (GDE), will be responsible for the implementation of the preschool and initial education component, with the support of the regional offices of the MIEDUC and local community organizations (COPAMACE). Targeted communities will be selected by the MIEDUC's Initial Education Directorate in accordance with the national strategy to focus on the most disadvantaged areas which are outlined in the national poverty map. Curriculum design and development of educational materials and promoter manuals will also be the responsibility of the central IED. The MIEDUC regional offices will be responsible for program promotion, organization of COPAMACEs and parent groups for initial education, selection and training of promoters and parent leaders, and day-to-day supervision of educational activities. More specifically, day-to-day activities will include: administration of program operations, payment of stipends to promoters, organization of training events and collection of local operational and financial data.

The MIEDUC's Curriculum Directorate (DC), in coordination with the General Directorate of Education (DGE) will be responsible for the implementation of the educational materials component, including selection of materials to be distributed to the schools. Implementation and evaluation of the pilot project for TV secondary education will be conducted by the DGE with the support of the DGFDI and the MIEDUC regional offices in the selected locations.

The institutional strengthening component will be implemented by DGFDI in collaboration with the MIEDUC regional offices. The regional office Director will be responsible for the organization and

logistics of the training program to be conducted under the project. Hiring of international and local consultants to provide technical assistance and training to the Boards, including preparation of terms of reference and supervision of the consultants' work, will be done by the office of the DGFDI with assistance from the PCU.

**Project Oversight.** A Project Management Committee will perform project oversight functions. The committee will include the Vice-Minister of Education, the Project Coordinator, the General Director of Education, and heads of each project implementation unit (initial education, bilingual education, primary education, Telebásica, evaluation, infrastructure, information systems and Regional Directors).

**Counterpart Financing.** Project counterpart resources will be required primarily to finance the targeted IFARHU scholarships and the incremental recurrent costs associated with hiring additional supervisory staff, incentives to promoters and local coordinators in the non-formal preschool and initial education program, additional teachers for the distance education pilot program, maintenance of school infrastructure, and a portion of school construction costs. It is estimated that annual budget requirements for counterpart funding will be in the order of US\$2.4 million, US\$4.8 million, US\$7.2 million, US\$7.2 million and US\$2.4 million for the years 2001, 2002, 2003, 2004 and 2005, respectively.

**Procurement.** Works costing under US\$100,000 will be contracted either by the MIEDUC or by an outside entity selected by the MIEDUC and acceptable to the Bank. For works costing over US\$100,000, contracting will be handled either by the MIEDUC or through an implementation agreement with an outside agency selected in accordance with Bank approved competitive procedures.

Rehabilitation and replacement of infrastructure costing less than US\$50,000 may be carried out under lump-sum contracts awarded on the basis of not less than three quotations from qualified local contractors, providing adequate documentation, clear specifications and evaluation procedures, and ensuring confidentiality of bids. National competitive bidding will be used for contracts for goods up to US\$250,000 and for works up to US\$500,000. National shopping procedures will be used for goods costing less than US\$50,000 up to an aggregate amount of US\$1,430,000 equivalent. Direct contracting for textbooks selected by MIEDUC in consultation with the Bank, under contracts estimated to cost US\$4,440,000 equivalent or less in the aggregate, and for works costing less then US\$30,000 in isolated rural areas where a sufficient number of qualified contractors are not available, may be allowed with the Bank's prior agreement.

Other procurement of goods and services will be handled by the MIEDUC with assistance from the PCU. Direct purchase of books on the basis of contracts awarded following competitive procedures under the ongoing project may be acceptable, provided that it would be the same titles which are not available from others and that the prices remain competitive. Prices should be the same as those agreed on the original contract with reasonable adjustments for inflation.

**Project Financial Management and Auditing.** A project financial management (FM) assessment was carried out by the Bank's Regional Financial Management Unit (LCOAA). The FM system - which is currently in place for the First Basic Education Project - meets minimum Bank requirements. However, some recommendations were made so as to: update the operational and accounting manuals, upgrade the accounting software, streamline the flow of funds, and enhance the sharing of financial information among the participating entities. As part of this exercise, an action plan was agreed upon to improve the system, including capability to produce quarterly Project Management Reports (PMRs). Evidence that the financial management system is in place and operational before the effectiveness date was established as an effectiveness condition.

Once fully operational, and assuming that other key elements remain in place, the project will be able to receive loan funds under PMR-based disbursements. This is expected to take place no later than June 30,

2001.

Not later than sixty days after effectiveness, an independent audit firm will be contracted to carry out the Project's yearly audit, in accordance with terms of reference approved by the Bank. As under current arrangements, the external auditors will perform interim visits on a quarterly basis.

**Monitoring and Evaluation Arrangements.** Project implementation will be closely monitored by the PCU in collaboration with the pertinent line units of the MIEDUC and the Regional Directorates of Education. In addition, monitoring will be performed through: (a) Bank supervision missions with intensive implementation support, particularly in year one; (b) annual progress reviews of the annual project implementation plan to be conducted by the PCU in coordination with the Bank; (c) a comprehensive mid-term review to be carried out no later than March 31, 2003; (d) beneficiary surveys and other assessment instruments; (e) an Implementation Completion Report (ICR) to be prepared jointly by the GOP and the Bank no later than six months after the closing date of the project. A set of monitoring indicators agreed with the GOP is reflected in the annex of the Implementation Letter.

## D. Project Rationale

## 1. Project alternatives considered and reasons for rejection:

**Non-formal preschool vs. regular Kindergarten.** The alternative of extending coverage of traditional kindergarten education to all 5-year-old children in Panama was considered, and rejected because of the high unit cost involved in building additional classrooms, hiring and training professional teachers, and other operational expenses. Also, research findings and recent international experience show that Early Childhood programs that are non-formal in nature and involve the family have a significant impact on the children's later achievement and permanence in school.

Massive vs. gradual expansion of non-formal preschool. Massive expansion of the less expensive non-formal model with community participation was rejected because of the need to consolidate institutionalization of the program at the central and regional levels, while building institutional capacity in the MIEDUC to follow up and promote the program among dispersed rural populations that are difficult to reach. For this reason, a course of gradual expansion has been chosen, aiming to reach the children in remote rural localities and marginal urban communities first.

**Distance education** (*Telebásica*) vs. traditional secondary schools. An alternative to extend coverage of secondary education to the rural areas through conventional secondary schools was considered impractical because dispersed populations make it impossible to assemble enough students and teachers to operate a school in small localities. Experience in other countries, notably Mexico, has shown that rural secondary students can be effectively reached with distance education methods via television. Lower secondary subjects are being taught by one teacher to groups of rural children using content materials transmitted by TV or recorded on video-cassettes. Students can work at their own pace, and the teacher is available to provide guidance and monitor progress through quizzes and reviewing exercises. *Telebásica* would be introduced as a pilot project in about 30 rural communities, with technical assistance provided by the Mexican government to test adaptation of the method to Panamanian conditions. This pilot phase is considered essential to build institutional capacity and develop appropriate educational materials before the program can be expanded on a nationwide scale.

**Total rehabilitation of school infrastructure vs. gradual approach.** Although the need for school infrastructure rehabilitation is greater than the project will cover, an alternative to undertake all the present needs of school rehabilitation and repair was rejected because of budget constraints and limited institutional capacity at the MIEDUC to manage and supervise larger investments in infrastructure. The country's

school infrastructure has suffered from lack of adequate resources for maintenance since the early 1980's and many buildings show structural damage and decayed plumbing and electrical systems which make school buildings hazardous to students. A conservative approach was selected where rehabilitation and/or replacement is focused on high priority cases of dilapidated or inadequate school buildings, especially the shanty schools or *escuelas-ranchos*, while strengthening overall local community organizations to assume a more active role in preventive and routine maintenance of the schools.

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)		
Bank-financed		Implementation Progress (IP)	Development Objective (DO)	
- Low quality and efficiency of basic education, and limited access to schooling and preschool services for children of rural and poor urban areas.	- Basic Education Project	S	S	
- Extensive damage to infrastructure of social services due to lack of adequate maintenance, and need to alleviate impact of economic adjustment measures on low income populations.	- Social Investment Fund Project	S	S	
- Low accessibility of the rural population to basic health services and to preventive health interventions.	- Rural Health Project	U	U	
- Lack of sustainable productive systems and concentration of poverty in rural areas causing degradation of natural resources and migration.	- Rural Poverty and Natural Resources Project	S	S	
Other development agencies - Low efficiency of school management, inadequate curriculum, and lack of evaluation of student achievement.	- IDB Education project			

# 2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

## 3. Lessons learned and reflected in the project design:

**Preschool Education.** Research has shown that early educational interventions improve children's readiness for reading and writing, and they reduce repetition and dropout rates in primary schools. Non-formal approaches make it possible to provide early educational services to children of rural and poor urban families and encourage parental involvement in and understanding of better child rearing practices.

A social assessment was completed in early 1998 as part of project preparation, including an evaluation of the CEFACEI and the mother-to-mother programs financed by the Bank's first Basic Education project in Panama. The study showed that the CEFACEIs enroll an average of 17 children per center, of whom about

56 percent are 5-year-old and 44 percent are 4-year-old. Average dropout in 1997 was only 1.8 percent mainly due to illness or excessive distance from home to center. Parents value their children's achievements in terms of social behavior, acquisition of learning skills, and the nutritional meal provided by the center. They also value their own learning from the parent workshops, which enables them to teach their children. Nearly 50 percent of the centers have active support from local authorities, 67 percent from various community organizations, 60 percent from the church, and 40 percent from NGOs. There is good parent participation in the activities of the centers, mainly by mothers, but in about 40 percent of the cases studied, both parents participate equally.

**Targeting.** Quality inputs such as textbooks and other classroom educational materials, a stimulating home environment and preschool educational experiences, have a powerful influence in improving school performance. However, students in lower income families usually have no access to quality initial and preschool education programs or to necessary school materials and texts, and as a consequence their performance in school is compromised. Project interventions to restore equity in access to quality education must be carefully targeted to effectively provide equal educational opportunities to those students most in need of assistance.

**Distance Education for Rural Secondary.** In most developing countries, students completing primary school in rural multigrade classes are often deprived of the opportunity to attend school for the remaining three grades of basic education (7-9). Experience has shown that distance education methods via educational television can effectively provide valid educational experience to secondary students in remote, isolated rural communities. The project will pilot adaptation of *telesecundaria* methods and materials successfully used in Mexico to the realities and conditions of the rural communities of Panama.

**Community Participation.** Experience has shown that community involvement in the operation of schools adds an important dimension to the effectiveness of publicly provided education by mobilizing local support for the schools and increasing pride in achievement on the part of students and teachers. In Panama, the Bank has already encouraged parent and community participation in physical maintenance of schools and in provision of non-formal preschool education services in rural and marginal urban areas.

### 4. Indications of borrower commitment and ownership:

The government has shown its commitment to the project objectives and components through a number of specific actions, including the following:

- Top Ministry officials participated in policy decisions to facilitate implementation of the First Basic Education Project, as well as in the shaping of strategies for conceptualization and preparation of the new project proposal. The First Basic Education Project currently under implementation will be completed ahead of schedule in a highly satisfactory manner.
- The Government issued a 10-year Strategy in late 1996 for the Modernization of Education in Panama, 1997-2006, which emphasizes equity, decentralization, quality improvement and community participation. It also outlines development goals consistent with project objectives and methods.
- Both the Ministers of Education and Finance have made formal requests to the Bank stressing the urgency of the proposed project, and a high ranking officer of the MIEDUC has been designated to lead the technical group in charge of designing the new project.
- Local ownership of the project is assured by the fact that Ministry staff responsible for implementation are also in charge of design and preparation of project components.
- Stakeholders, including teachers unions, universities, family associations and other community groups, have been widely consulted in the process of developing major policy proposals for the Education Law

of 1995, and the 10-year Strategy for 1997-2006. Likewise, teachers from all regions have participated in the selection of textbooks to be purchased by the First Basic Education project.

## 5. Value added of Bank support in this project:

- While the identification of the country's educational development needs and subsequent determination of project content and project strategies is the result of national analyses and initiatives, the Bank has brought into the planning dialogue substantial experience on developing education projects with similar objectives in other Latin American countries and outside the region.
- The Bank's contribution has been significant in focusing project interventions towards the reduction of poverty by targeting the most disadvantaged population groups while ensuring maximum efficiency of educational investments. Preparation of the new project builds on the lessons learned during implementation of the previous project, and will contribute to enhancement of the managerial and planning capabilities of the MIEDUC staff.
- Design of a non-formal preschool education strategy to provide early educational stimulation to children in rural and marginal urban areas has drawn on the Bank's extensive experience with early child development projects in many countries, especially with the highly successful Initial Education project (PRODEI) in Mexico.
- Likewise, design and implementation of a distance education model for delivery of secondary education to children in rural areas will benefit from the Bank's experience with innovative technology solutions to educational access problems in other countries, notably the *Telesecundaria* and *Teleprimaria* programs in Mexico.

## E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

- 1. Economic (see Annex 4):
- Cost benefit NPV=US\$ million; ERR = 22 % (see Annex 4)
- $\bigcirc$  Cost effectiveness
- $\bigcirc$  Other (specify)

Results indicate that overall, the project is economically viable. The project is viable even when we consider the full costs of the project (including capacity building, institutional strengthening, and the opportunity cost to households of children attending school). The estimated rate of return for the project as a whole is 22 percent.

Component-specific analyses indicate that the Rehabilitation of Infrastructure has the highest economic return, and that the CEFACEI and Initial Education component have the lowest economic returns. The internal rate of return (IRR) for the TELEBASICA component, as a whole, is conservatively estimated at 15 percent; for the CEFACEI and Initial Education component, 14 percent; for the educational materials component, 23 percent; and for the rehabilitation of educational infrastructure, 24 percent.

If one excludes the opportunity costs from this analysis, then the IRR can be estimated at 17 percent for Telebásica, 15 percent for CEFACEI and Initial Education, 28 percent for the Educational Materials component, and 30 percent for the rehabilitation of educational infrastructure. The overall IRR in this case

is 26 percent.

If one assumes different case scenarios, namely that GDP would grow at only 1 percent per year in nominal terms and everything else remains constant, the IRR for the Telebásica component would still be 10 percent, for the CEFACEI and Initial Education component it would be 9 percent, for the Educational Materials component it would be 16 percent, and for the Rehabilitation of Infrastructure component it would be 17 percent. With this lower GDP growth rate, the return for the project as a whole is estimated at 15 percent (see Table 4).

It must be noted that the IRR as calculated, should be thought of as lower-bound estimates, as they exclude many benefits that are difficult or impossible to measure in monetary terms. In particular this benefit-cost analysis assigns no independent benefits to the Institutional Strengthening component, treating it only as costs or supporting activities of the other four components.

In broad terms, the *measurable benefits* from the project are: (i) the improvement in repetition and dropout rates; (ii) increased coverage of basic education (primary and lower secondary); (iii) gains from maintaining and expanding the school infrastructure; and (iv) the increase in expected wages of better-educated individuals. The IRR estimates do not include monetary estimates of non-monetary benefits, such as, by increasing the productivity of the poor, by reducing fertility rates and improving health, basic education helps reduce poverty. This analysis also excludes the positive externalities that arise from a better educated population and the spillover effects of a project that by targeting children from low-income families, will positively impact the population income distribution; or that basic education is critical for economic growth and poverty reduction.

2. Financial (see Annex 5):

NPV=US\$ million; FRR = % (see Annex 4)

In 1997 the Government budgeted US\$512 million, or 10.8 percent of its total budget, for the education sector. This compares unfavorably with 1990 where 16.3 percent of the total government budget was spent on education. This corresponds to approximately US\$374 per pre-primary and primary student, US\$872 per secondary student and US\$2,142 per university student.

The tentative project financing plan includes US\$23.6 million in Government financing. We applied the same benchmark hypotheses as in the economic evaluation to estimate the impact of the project on MIEDUC's budget. In addition we assumed that the share of the education budget in GDP remains the same over the years (at roughly 6 percent), implying that the budget also grows at five percent year.

Based on the percentage impact of the project on the budget of MIEDUC, we conclude that the project will not put an unfeasible burden on the budget and that it should be fairly easy for MIEDUC to absorb the additional expenditure. If we look at the impact of the project on the budget of the central government, in addition to the costs and benefits previously discussed, the central government has an additional gain with an expected increase in tax receipts. The impact of the project on the budget of the central government is minimal, reaching a maximum of 0.22 percent.

#### Fiscal Impact:

The project's incremental recurrent costs correspond to the following: (i) payments to promoters and local coordinators of the non-formal preschool education program, as well as to supervisory and central level incremental staff; (ii) scholarships for needy students; (iii) non durable educational materials for the preschool program; (iv) hiring of teachers for the distance education pilot program; and (v) costs related

to the coordination of project activities and maintenance of office equipment purchased with loan funds. These will be fully financed by the Government from the beginning of the project. They represent less than two percent of the Ministry of Education budget and are considered negligible and easily absorbed by the Government through savings by promoting system efficiency.

## 3. Technical:

No special technical problems are anticipated in the implementation of this project. Satisfactory technical capacity already exists in the various operational units of the MIEDUC, and has been reinforced through implementation of investments under the First Basic Education project. Experience gained in implementing the quality improvement components and the non-formal preschool education program will be valuable for the expansion of the same components to other areas and communities.

Lessons learned in the operation of the CEFACEI and the mother-to-mother programs in the field have been used to introduce adjustments in the design of both models in order to make them more effective and more relevant to the needs of the communities. The requirement that only mothers participate in the mother-to-mother program has been dropped, and the name has been changed to Initial Education in the Home in order to encourage participation by fathers and other members of the family. Likewise, the conditions for membership in the COPAMACE are currently being reconsidered with a view to allow broader representation of the community.

The pilot project of distance basic education via television is the one element of the project for which there is limited previous experience in the MIEDUC. However, technical assistance has been arranged from the Mexican government, where considerable experience with a similar program has been developed over many years, and Mexican experts are already working with the MIEDUC in designing the pilot for Panama. International technical assistance will also be made available by the project for evaluation of the pilot and for adaptation and development of appropriate educational materials.

### 4. Institutional:

### 4.1 Executing agencies:

The MIEDUC, as the agency responsible for project execution, has demonstrated significant institutional and administrative capacity in implementing the First Basic Education project, and in mobilizing the technical resources available in all departments of the Ministry, at the central and provincial levels, to support the educational changes called for by the project. IFARHU, an autonomous government agency with long experience in human resource development programs, would be responsible for implementing the Scholarships subcomponent. The MIEDUC has also been successful in motivating the parents and other community members to participate in the CEFACEI and home based initial education (Mother-to-Mother) programs. As a consequence, the MIEDUC has formed a strongly committed technical team, and provided it with competent leadership at the highest administrative level.

#### 4.2 Project management:

A Project Coordination Unit is responsible for all financial, administrative and procurement matters, while all technical aspects of the project are executed by the corresponding technical units, under the coordination of the PCU. The project allows for implementation agreements to be entered with other outside agencies selected in accordance with Bank approved competitive procedures, as necessary to facilitate project implementation. These institutional arrangements will be maintained through the implementation of the second project.

4.3 Procurement issues:

No special procurement problems are anticipated while implementing the project. Satisfactory technical capacity already exists in the Project Implementation Unit.

4.4 Financial management issues:

The project financial management (FM) assessment concluded that the system which is currently in place for the First Basic Education Project meets minimum Bank requirements. Even so, an action plan was agreed upon to strengthen and enhance some areas, including capability to produce quarterly Project Management Reports (PMRs). The Bank's Regional Financial Management Unit (LCOAA) will follow up on the implementation of the plan.

#### 5. Environmental: Environmental Category: C (Not Required)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

The project is rated C because it is expected to have a positive impact on the environment as a result of enhanced environmental knowledge and practices of students in primary and secondary schools. Environmental concerns are stressed in the curriculum, and environmental conservation topics are included in the textbooks to be distributed by the project. No resettlement will be involved in school construction, which will be primarily rehabilitation or replacement of existing classrooms on land owned by the government and not occupied by population.

5.2 What are the main features of the EMP and are they adequate?

N/A

5.3 For Category A and B projects, timeline and status of EA: Date of receipt of final draft: N/A

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

#### N/A.

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

#### N/A

### 6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

The objectives of the social assessment carried out in 1998 were to: (a) evaluate the different activities related to the First Basic Education Project, in each component and by different social groups and institutions in the project area; (b) identify the project stakeholders as well as the direct beneficiaries participating during project preparation and implementation, and obtain their major recommendations during the design phase; (c) identify the potential negative/positive impact of the proposed activities based on an evaluation of the CEFACEIs through the analysis of each of their constituent elements, promoters, parents and COPAMACEs, and of the Mother-to-Mother pilot for the more vulnerable groups, and to design activities which might help mitigate and overcome such impact; and (d) identify the needs for increasing the capacity of organized local groups (CEFACEIs and Mother to Mother) to plan and execute

activities during project implementation.

The social assessment process included several specific actions aimed at understanding the project activities and their consequences within the human context. Prominent among these are the evaluations of the CEFACEI and the Mother to Mother pilot, including: (a) analysis of the major stakeholders and direct beneficiaries of the project in its area of influence; (b) the consultation-evaluation workshops in the project area, conducted by the consulting team; (c) participatory diagnostics in communities of the provinces of Bocas del Toro, Darien and San Blas; (d) an indigenous profile designed within the project area, to prepare the indigenous development plan in the context of the project; and (e) design of a social communication program, culturally adapted for the indigenous and non-indigenous population, for the preparation and implementation phases of the project.

Specific recommendations resulting from the social assessment have been incorporated in the design of each of the project components, and are included in the full report, in the project files.

Participatory Approach	Preparation	Implementation	Operation
Beneficiaries/Community groups	COPAMACES, CEFACEIs. CON, COL	COPAMACES, CEFACEIs. CON, COL	COPAMACES CEFACEIs, CON, COL
National Government	MIEDUC, MEF, FIS, Regions and Provinces COL, CON	MEF, COL; MIEDUC, FIS, Regions and Provinces CON and COL	MIEDUC, regions and Provinces COL, CON
Intermediary NGOs	IS, CON	CON, COL	CON, COL
Academic Institutions	Universidad de Panama, IS, CON	Universidad de Panama, COL	Universidad de Panama, COL
Local Government	Municipalities CON	Municipalities CON, COL	Municipalities CON, COL
Other Donors	IDB, IS, CON	IDB, IS	IDB, IS

6.2 Participatory Approach: How are key stakeholders participating in the project?

Note: IS = information sharing; CON = consultation; COL = collaboration

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

Teacher unions, NGOs, universities, parents associations, the church, political parties and other community organizations have participated in the building of national consensus on general education policy and in shaping the new General Education Law and the Ten-year Strategy to Modernize Education in Panama. The project will support key aspects of those education policies. Parents and social promoters participating in the CEFACEI program have been interviewed by researchers in order to assess their main

concerns and needs. The project has been defined by the MIEDUC keeping in mind the activities already being financed by the Bank and the IDB, in order to avoid duplication of efforts.

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The MIEDUC, through its regional offices, will promote community involvement in all project activities and in the operation and maintenance of schools. Direct participation by parents through management committees (COPAMACEs) is already key to the operation of the CEFACEIs. Specific modes of involvement by parents and other community groups include participation in non-formal preschool centers and home-based initial education groups, as well as in school operation through parent associations, and responsibility for maintenance of school buildings and grounds.

6.5 How will the project monitor performance in terms of social development outcomes?

Primary beneficiaries of the project will be school-age children in low income indigenous, rural and marginal urban communities who attend primary and secondary schools, as well as those who will participate in the non-formal preschool and initial education programs, and secondary TV program. Further direct consultation with groups that would benefit from the project has provided new insights into community participation potential that has been incorporated in the project design.

### 7. Safeguard Policies:

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	$\Box$ Yes $\boxtimes$ No
Natural habitats (OP 4.04, BP 4.04, GP 4.04)	$\Box$ Yes $\boxtimes$ No
Series (OP 4.36, GP 4.36)	$\Box$ Yes $\boxtimes$ No
Pest Management (OP 4.09)	$\Box$ Yes $\boxtimes$ No
Cultural Property (OPN 11.03)	$\Box$ Yes $\boxtimes$ No
Indigenous Peoples (OD 4.20)	$\Box$ Yes $\Box$ No
Involuntary Resettlement (OD 4.30)	$\Box$ Yes $\boxtimes$ No
Safety of Dams (OP 4.37, BP 4.37)	$\Box$ Yes $\boxtimes$ No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	$\Box$ Yes $\boxtimes$ No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)	$\Box$ Yes $\boxtimes$ No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

Project investments are targeted primarily to the poor indigenous, rural and urban communities which have limited access to basic education or have inadequate school facilities and lack qualified teachers and effective educational materials. Specific project actions to benefit indigenous communities are the provision of bilingual textbooks, supplementary reading and other educational materials for primary and preschool students and for adult indigenous parents participating in the home-based initial education program. Native language speaking indigenous teachers will be trained in the proper use of bilingual materials and in the techniques of multigrade teaching, which is the most typical characteristic of primary schools in small, isolated, rural indigenous communities. Dilapidated shanty classrooms (*escuelas ranchos*), most of them located in indigenous communities, will be replaced with adequate, pedagogically designed and equipped educational facilities. A social communication program, culturally adapted for the indigenous population, has been designed for the preparation and implementation phases of the project.

## F. Sustainability and Risks

## 1. Sustainability:

Sustainability of project investments is primarily dependent on government ability to finance incremental recurrent costs of new and expanded educational programs, such as non-formal preschool education and innovative TV delivery of secondary education in rural areas. Careful assessment of financial impact of the project on sector budgets has been made during appraisal, and specific government commitments have been negotiated to ensure continued financing of incremental recurrent costs, especially those associated with the expansion of the CEFACEI and initial education programs, and the Telebásica program.

Sustainability is also dependent on community ownership of the educational enterprise and willingness to participate in preventive maintenance of the school buildings and in overall management of the school operations. The social assessment study has helped in identifying relevant stakeholder groups and modes of their involvement in project preparation and implementation. The project will help strengthen the newly created regional offices of the MIEDUC, and will provide technical assistance and training to ensure that they gradually and competently assume responsibility for school governance and the quality of education.

Risk	Risk Rating	Risk Minimization Measure
From Outputs to Objective		
Unavailability of adequate and timely	S	- Financial impact assessment and clear
budget resources to finance project		commitment from government
counterpart investments and incremental recurrent costs		Loan Agreement includes provisions with regard to the obligation of the Borrower to provide sufficient counterpart funds in a timely manner as well as the obligation to operate a revolving fund with at least \$250,000 in counterpart funds.
- Lack of support and commitment from MIEDUC to carry out the program	N	- Participatory nature of project design and preparation ensures MIEDUC ownership and commitment.
- Lack of interest and motivation on the part of parents and community for active, meaningful participation in school activities and maintenance of school buildings	N	- Promotion and information campaigns will be directed at parents and community. Maintenance training will be provided to groups of parents of schools rehabilitated.
- Lack of local technical expertise to follow up and evaluate Telebásica pilot	М	- Technical assistance has been arranged with experienced Mexican government experts.
From Components to Outputs		
- Lack of objective criteria to identify and select targeted communities	М	- Training in the use of poverty map for targeting.
- Lack of highly qualified human resources to execute project components	S	- Permanent on-the-job training.

## 2. Critical Risks (reflecting assumptions in the fourth column of Annex 1):

- Weak technical capacity of MIEDUC to define and cost infrastructure rehabilitation needs	М	- Technical consultants will be hired to reinforce MIEDUC staff.
- Lack of interest and motivation in local groups for participation in training workshops	М	- Social assessment and project preparation activities have emphasized involvement by community groups in project design.
- Lack of technical expertise in MIEDUC to organize training for regional decentralized offices	М	- Technical assistance will be provided to design training program.
- Lack of appropriate training materials for education board members workshops	М	- Technical assistance will be provided to develop materials.
Overall Risk Rating	М	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

## 3. Possible Controversial Aspects:

N/A

## G. Main Loan Conditions

## 1. Effectiveness Condition

- The Borrower has issued a Project Operational Manual acceptable to the Bank.
- The Borrower has provided evidence that continued operation of the PCU has been authorized by the MIEDUC for the period of project implementation.
- The Borrower has provided evidence that operation of the revolving fund has been extended, to be administered by the MIEDUC, with not less than the equivalent of US\$250,000 to finance the counterpart portion of the costs of project implementation.
- The IFARHU Agreement has been signed with IFARHU, and a Construction Implementation Agreement has been signed with either the Social Investment Fund (FIS) or another entity acceptable to the Bank.
- The Borrower has provided evidence that the financial management system is in place and is operational
- 2. Other [classify according to covenant types used in the Legal Agreements.]

### Monitoring, Review and Reporting:

- The Borrower has agreed with the Bank on a procurement plan for the four-year life of the project, satisfactory to the Bank.
- The MIEDUC will prepare and present to the Bank, no later than 30 days after the conclusion of each calendar year, annual reports of implementation progress.

• The MIEDUC, jointly with the Bank, will conduct annual reviews not later than March 31 of each year, starting in the year 2002.

#### **Financial:**

• The MIEDUC will provide evidence by January 31 of every year, beginning in 2001 until project completion, that enough resources have been allocated in the annual budget to cover all requirements of Project counterpart funding for the year in question, including the IFARHU scholarships.

### H. Readiness for Implementation

- 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
- 1. b) Not applicable.
- $\boxtimes$  2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
- ☑ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
- 4. The following items are lacking and are discussed under loan conditions (Section G):

## I. Compliance with Bank Policies

- $\boxtimes$  1. This project complies with all applicable Bank policies.
- ☐ 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

Xolas

Carlos A. Rojas Team Leader

Xatier E. Coll Sector Manager/Director

D-M Dowsett-Coirolo Country Manager/Director

# Annex 1: Project Design Summary

	PANAMA: PA/BA		
Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector-related CAS Goal: Poverty reduction Enhancement of human resource development.	Sector Indicators: Lower levels of extreme poverty Greater efficiency of primary and secondary schools.	Sector/ country reports: Analysis of national economic statistics Analysis of education statistics.	(from Goal to Bank Mission) Project reaches targeted areas successfully. Project is implemented successfully.
Project Development Objective: 1. To improve quality and efficiency of basic education.	<ul> <li>Outcome / Impact Indicators:</li> <li>1.1 Greater efficiency and higher completion rates in primary and lower secondary schools.</li> <li>1.2 Thirty <i>Telebasica</i> pilots are operational.</li> <li>1.3 Approximately, 240,000 multigrade students and 40,000 lower secondary students receive textbooks and other educational materials.</li> <li>1.4 Some 37,000 students in indigenous communities receive bilingual materials.</li> <li>1.5 School infrastructure improved and learning environment enhanced in targeted schools in</li> </ul>	<ul> <li>Project reports:</li> <li>Education statistics.</li> <li>Project monitoring reports.</li> </ul>	(from Objective to Goal) - Adequate utilization of new educational materials in schools.
2. To improve equity of access to preschool and basic education.	disadvantaged areas. 2.1 CEFACEIs and home- based initial education expanded in rural and marginal urban areas to 12,000 children and 6,000 parents.	Project monitoring reports.	- Good response and participation by parents and community.
3. To expand coverage of preschool and initial education.	3.1 Fify-four percent of age cohort 4 - 5 years enrolled in preschool.	Education statistics.	- Continued commitment fro MIEDUC to support program
4. To strengthen the planning, supervision and policy-making capacity of the MIEDUC.	4.1 Regional offices operating and trained in all regions.	Project monitoring reports.	- Support from MIEDUC to advance administrative decentralization.

## PANAMA: PA/BASIC EDU II

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Output from each component:	Output Indicators:	Project reports:	(from Outputs to Objective)
I. Quality improvement 1. Educational materials	1.1 Guides for math, science,	Project reports.	Support from MIEDUC to
provided to schools.	<ul> <li>language and social studies</li> <li>provided to 240,000</li> <li>multigrade students and</li> <li>teachers.</li> <li>1.2 Library packages</li> <li>(non-printed materials and</li> <li>library books) acquired and</li> <li>distributed to approximately</li> <li>4,200 multigrade classrooms.</li> <li>1.3 Didactic materials</li> <li>distributed to 40,000 lower</li> <li>secondary students and</li> <li>teachers in poor districts.</li> <li>1.4 Teachers training</li> <li>completed for 4,130 teachers</li> <li>in the use of didactic</li> <li>materials.</li> <li>1.5 Bilingual materials</li> <li>distributed to 37,000 students.</li> </ul>		carry on program.
2. Scholarship program is established and reaches students in need.	2.1 Poverty-based scholarships are provided to 6,000 primary and secondary students in public schools with 60% allocated to rural and indigenous students.	Project reports.	Support from MIEDUC to carry on program.
3. Equity of Access. <i>Telebásica</i> established and evaluated.	<ul> <li>3.1 Thirty pilot rural schools implementing <i>Telebásica</i> by the year 2001.</li> <li>3.2 Evaluation report for pilots produced.</li> </ul>	Project reports.	Availability of technical expertise to follow-up and evaluate pilot.
4. Better school infrastructure and a more adequate teaching/ learning environment available in schools of disadvantaged areas.	<ul> <li>4.1 All shanty schools (escuelas ranchos) replaced.</li> <li>4.2 Approximately 336 schools identified and contracts for construction/ rehabilitation awarded. New classrooms built and equipped.</li> <li>4.3 Rehabilitation completed for 1,515 classrooms.</li> </ul>	MIEDUC, Division of Infrastructure Statistics. Project reports.	Adequate and timely resources available.

II. Expansion of Non-formal	alle – elektri analizentati tirinizi ministri magire il estate en en en en el elizioti		n – na sena un na sita sita desena aparte nelle menerala para l'adala e atras estado a tra differenza desenada
Preschool Education.	1.1 Thirteen training		
1. CEFACEIs and	workshops for central staff	MIEDUC Division of	Support and commitment
1. CEFACEIs and home-based initial education programs are expanded in targeted areas.	and for provincial staff provided. 1.2 Workshops (240) for promoters and local coordinators provided. 1.3 Workshops (1,240) for COPAMACE provided. 1.4 Six hundred new CEFACEIs established by the end of the project. 1.5 Four hundred home-based initial education programs established by the end of the project. 1.6 Approximately 12,000 new children enrolled in CEFACEIs by the end of the project. 1.7 Four hundred new	MIEDUC Division of Infrastructure Statistics. Project reports.	Support and commitment from MIEDUC to implement the program.
	"mothers" training approximately 6,000 rural parents. 12,000 additional children benefited by the project.		
2. Educational materials for new CEFACEIs are provided and home-based initial education programs are operating.	<ul> <li>2.1 CEFACEIs (600) receive updated version of education materials.</li> <li>2.2 Home-based initial education groups (400) receive updated version of education materials by EOP.</li> </ul>	Project reports.	

III. Institutional Strengthening 1. Regional offices of the MIEDUC are established and operating.	all regional education staff trained, and relevant central level staff trained. 1.2 Workshops for teachers provided. 1.3 Workshops for school principals and supervisors provided. 1.4 Human resources MIS subsystem implemented 1.5 Financial MIS subsystem implemented 1.6 Administration MIS subsystem implemented 1.7 Statistics MIS subsystem	Project monitoring reports.	Key stakeholders interested and motivated.
IV. Project Administration	implemented. • All PCU staff trained	Project monitoring reports.	MIEDUC management support
Project Components / Sub-components:	Inputs: (budget for each component)	Project reports:	(from Components to Outputs)
<ol> <li>Quality improvement</li> <li>Selection of titles, purchase and distribution of school library packages.</li> <li>Scholarship program selection criteria established.</li> </ol>	US\$44.95 million	Project reports.	Timely selection of experts to assess and cost rehabilitation needs. Ministry provides funding for scholarships.
3. Equity of Access, selection of targeted schools to implement <i>Telebásica</i> pilot project.			
<ul> <li>4. Identification of schools in need of reconstruction or rehabilitation.</li> <li>5. Construction/rehabilitation of selected schools.</li> </ul>			
<b>II. Expansion of Non-formal</b> <b>Preschool Education</b> 1. Education training workshops for central, provincial and local staff on CEFACEI and home-based initial education programs.	US\$6.20 million	Project monitoring reports. Statistics from MIEDUC.	Staff fully qualified to conduct provincial and local training.

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2. Technical assistance to revise and/or develop educational materials for preschool education.			Availability of qualified expertise to carry out the component.
3. Identification of communities targeted for CEFACEI and home-based initial education programs.			Communities interested and motivated and staff at the central and provincial level well trained to select targeted communities.
III. Institutional Strengthening	US\$5.20 million	Project monitoring reports.	Regional staff interested and
1. Technical assistance for designing the training program to strengthen the Regional offices of the MIEDUC.			motivated. Appropriate materials developed to meet participant needs.
2. Training workshops for Regional offices of the MIEDUC and for local staff (supervisors, teachers, school principals).			
IV. Project Administration	US\$2.30 million		
Front-End Fee TOTAL	US\$0.35 million US\$59.00 million		

## Annex 2: Project Description PANAMA: PA/BASIC EDU II

The project will expand the actions undertaken by the ongoing First Basic Education Project in targeted poor areas and communities, which were not covered by the first project. The objectives of the project are to: a) improve the quality and efficiency of basic education in the country; b) improve equity of access to basic education, including preschool, primary and lower secondary education for children in rural and poor urban areas; c) expand the coverage of preschool and initial education through community-based non-formal education models; and d) strengthen the planning, supervision, and policy-making capacity of the MIEDUC. By supporting models of non-formal early childhood interventions and preschool education which involve the family and the community, the project would contribute to increased awareness of child development needs and foster the creation of a better community and home environment for child growth and development.

The project consists of three components: (1) Quality improvement of basic education, with three sub-components: (a) Educational materials, (b) Pilot project of distance basic education, and (c) Rehabilitation of educational infrastructure; (2) Expansion of the non-formal preschool education program; and (3) Institutional strengthening of the education system.

#### **Project Targeting:**

The project aims to correct inequities in social spending by targeting investments in early and basic education and ensuring educational programs reach the most destitute groups of Panamanian society many of whom live in conditions of relative isolation and neglect in indigenous, rural and marginal urban communities. The project will support expansion of initial and preschool education services to children of poor families who do not have access to early educational experiences and who often have the greatest difficulties in adjusting, remaining and completing primary and basic education.

In 1998, GOP carried out a Poverty Assessment study using the Living Standards and Measurement Survey (LSMS) and its results have been presented and widely discussed especially within the social sectors. (Panama. Poverty Assessment. Priorities and Strategies for Poverty Reduction. The World Bank, April 2000, 1999.) Results from the study were also used to develop a poverty map of Panama, which will guide the targeting of project investments.

The First Basic Education Project was targeted using a poverty index which was a composite of indicators of educational, housing and nutrition indicators, weighted by indigenous population and number of school age children, resulting in the ranking of all the *corregimientos* in the country from the poorest to the least poor. The project focused on infrastructure and scholarship investments in the 185 poorest *corregimientos*, covering poor, rural and indigenous communities, as well as many of the low-income subdivisions of the major cities.

The proposed Second Basic Education Project will use the recently-developed poverty map to target interventions. The project will gradually extend the preschool and initial education programs to additional communities. The second project will also support school rehabilitation efforts in all of the classrooms that show severe conditions of physical decay.

Expansion of the CEFACEI and home-based initial education programs will target primarily the poorest

areas of indigenous and rural populations as identified by the new poverty map.

The pilot centers for distance basic education (*Telebásica*) will be targeted to rural districts where there are no secondary education facilities for students finishing primary school.

Poverty-based scholarships will individually support children of poor families, selected on the basis of the poverty map and socioeconomic criteria defined by IFARHU, as well as graduating primary school children in the poorest townships in the country. Approximately 6,000 scholarships will be given annually.

The educational materials component will complement the actions initiated by the First Basic Education Project by making didactic materials and classroom libraries available to all primary multigrade and bilingual school students.

Targeting of the infrastructure component will focus on rehabilitation of badly deteriorated existing classrooms and sanitary facilities, especially in rural and marginal urban areas, and replacing improvised, inadequate primary school facilities in remote rural locations (shanty schools or *escuelas-ranchos*) with more educationally appropriate and safer school buildings. Selection criteria would be based primarily on the dilapidated condition of school buildings and the assessed risk to the safety and health of students.

#### By Component:

#### Project Component 1 - US\$44.95 million

(total cost of component, including contingencies)

**Sub-component (a). Educational Materials.** The purpose of this sub-component is to make available didactic materials and supplementary reading materials to all students attending public primary multigrade, bilingual and lower secondary schools. The Ministry of Education has determined that children in these communities do not have access to textbooks or other reading materials because their families usually cannot purchase them. On the other hand, studies in various countries have shown that availability of reading materials have significant effects on students' motivation and on the efficiency and organization of class work, and that their use produces important gains in academic performance.

The First Basic Education project currently under implementation provided textbooks in the core subjects of Mathematics, Spanish, Natural Sciences and Social Studies to 250,000 students, including all multigrade classes in the country and all students in primary and lower secondary schools of the poorest 185 *corregimientos*, representing 58.2 percent of the total student population. Additionally, the project provided those schools with 4,841 classroom and school libraries.

The sub-component will complement actions taken by the First Basic Education Project. It will target public primary (multigrade and bilingual) and lower secondary (grades 7-9) schools, a total of about 280,000 students. The project will distribute student guides in the areas of Mathematics, Language, Sciences and Social studies to all 240,000 multigrade students. It will also distribute other didactic materials (non-printed materials and library books) to primary and lower secondary students in targeted regions/schools. The project will also support development, printing and distribution of bilingual education materials for approximately 37,000 primary education students. About 5,200 primary and lower secondary teachers will be trained in the proper use of the student guides, teacher guides and in techniques for promoting voluntary reading among students.

Books in the school libraries will belong to the school; however, students will be allowed to borrow them during class and for home use to support homework or recreational and reinforcement reading. This is expected to foster reading habits and help develop permanent reading capacities in basic education students.

**Sub-component (b).** Scholarship Program. The Government of Panama maintains a system of scholarships to encourage attendance in primary and secondary schools for children of low income families in indigenous, rural and marginal urban communities. The scholarships are administered by IFARHU, a semi-autonomous government agency. As part of the First Basic Education Project, IFARHU agreed to target 800 scholarships per year to graduating primary students in the 185 poorest *corregimientos* in the country, to make it possible for them to enroll in secondary schools, and to grant 2,700 new scholarships to primary school students in the same areas. The scholarships included in the first project represent 48 percent of all scholarships granted by IFARHU in the country.

This sub-component will finance about 6,000 additional scholarships per year to students selected on the basis of poverty criteria and to graduating primary school students in the poorest districts including students living in areas of extreme poverty, in indigenous communities, and other students needing economic assistance to enable them to continue studies in lower secondary schools. The cost of the scholarships is US\$350 per year for secondary education and US\$300 per year for primary education, and each scholarship lasts for three school years. The scholarships included in the project will be financed entirely with project counterpart funds.

**Sub-component (c).** Pilot Project of Distance Basic Education (*Telebásica*). The purpose of this sub-component is to test the effectiveness of a distance education model using television to provide lower secondary education services to children in sparsely populated rural areas with extreme poverty conditions, who cannot afford to attend secondary schools in other cities or towns. About 1,819 primary schools, or 65 percent of all primary schools in the country, are in locations considered remote and with dispersed populations, where traditional secondary schools cannot be established because of the small number of potential students. It is estimated that about 13,000 students complete the primary grades in these remote schools, and few of them enroll in the lower secondary grades.

In 1996, the Governments of Panama and all Central American countries signed an agreement with the Government of Mexico to cooperate in adapting to each national situation the Mexican distance education model known as "Telesecundaria". The resulting model, *Telebásica de Panama*, was introduced officially as part of the Panamanian formal education system by Presidential Decree on March 5, 1997. The model is to operate as an experimental project under the General Directorate of Education, to be later transferred to the National Directorate of General Basic Education. The school year and the curriculum are the same as for all public schools in Panama, and students receive a Completion Certificate upon termination of the program.

The project will install 30 *Telebásica* Centers, with a maximum of 3 classrooms each, attached to selected primary schools in rural communities of the 13 school regions. Classrooms will be especially designed for the educational model using television and independent study, and will be equipped with TV viewing and recording equipment, in addition to conventional classroom furniture, a school library and video collection of all the educational programs used for the lower secondary school curriculum.

Each classroom will enroll from 10 to 30 students and there will be one teacher per classroom, plus one per center for social area subjects. Teachers will be required to live in the community and engage the community in school activities. Textbooks and learning guides will be distributed to all students. Initially

textbooks will be provided by the Mexican government as part of their technical cooperation. These textbooks will be revised by teams of Panamanian specialists, who will also prepare television scripts to be produced by Channel 11, the educational TV channel.

Training for *Telebásica* teachers will be provided by the Ministry of Education using training manuals produced according to models supplied by the Mexican technical cooperation. Supervision will be the responsibility of Regional Education Supervisors, who will also participate in training courses to become familiar with the operation of the distance education model. Evaluation of the experimental project will be conducted annually with participation by students, parents, teachers, supervisors, and regional and national coordinators. Two evaluation meetings will be held in each region, and one summary meeting at the end of the year will determine any changes or adjustments necessary to better adapt the model to local conditions.

**Sub-component (d). Rehabilitation of Educational Infrastructure.** The objective of this sub-component is to restore the physical plant and replace the furnishing and equipment of approximately 267 public basic education schools, which have been assigned high priority because of significant structural damage, or decayed plumbing and electrical wiring. Many school buildings in rural and marginal urban areas are shanty schools or *escuelas-ranchos*, precarious shacks in dilapidated condition that are inadequate for any educational function and pose health and safety risks to students and teachers. The project will address a priority of the present government policy for the education sector, which is the elimination of the *escuelas-ranchos* and their replacement with appropriate, sanitary school facilities. Rehabilitation involves either major repairs of schools that are structurally sound or total replacement of dilapidated, unsafe classrooms with newly built, appropriately designed schools including sanitary services.

The project will finance replacement and furnishing of about 336 existing decrepit classrooms (including all the *escuelas ranchos*) or to accommodate growing enrollments in the targeted areas. It will also include rehabilitation or physical improvement of 1,515 structurally sound classrooms in need of some type of repair or adaptation to prevailing weather conditions. Additionally, the project will finance construction of approximately 165 new "special modules", mainly sanitary services, and the rehabilitation of some 318 existing sanitary modules. In addition, the project will finance classroom furniture for about 4,000 multigrade classrooms.

The 267 schools included in the project will be added to the preventive maintenance program already established under the First Basic Education Project. The maintenance program is implemented through parent associations using resources transferred by the MIEDUC. Local groups will be provided with illustrated manuals and given training and encouragement to perform their preventive maintenance responsibilities. A pilot maintenance plan went into effect in May, 1998 under the first project in 15 selected schools distributed throughout the country. Evaluation of the pilot will be conducted at the end of 2001. The program will then be gradually expanded to cover all public schools in the country. Funds will be provided by the MIEDUC, using national counterpart resources, at an annual rate of \$154 per classroom for civil works and furniture, and it is expected that the allocation will reach approximately US\$400,000 per year at the end of the project, and an aggregate amount of US\$1.1 million in the four years of the project.

Implementation of the infrastructure component, including identification of school buildings to be rehabilitated, will be the responsibility of the office of the Director of the Infrastructure Division of MIEDUC. Contracting for civil works will be done by either the MIEDUC or an outside entity selected by the MIEDUC and acceptable to the Bank, depending primarily upon the size of each individual school project. For this purpose the MIEDUC may enter into an administration agreement with an outside agency selected in accordance with Bank approved competitive procedures to manage the bidding processes and

payments to contractors.

Works costing under US\$100,000 will be contracted either directly by the MIEDUC or through a construction implementation entity contracted by the MIEDUC and acceptable to the Bank. For works costing over US\$100,000, contracting will be handled either directly by the MIEDUC or through implementation agreement with an outside agency selected in accordance with Bank approved competitive procedures.

Rehabilitation and construction of infrastructure costing up to US\$250,000 may be carried under lump-sum contracts awarded on the basis of not less than three quotations from qualified local contractors, providing adequate documentation, clear specifications and evaluation procedures, and ensuring confidentiality of bids. Public bidding will be used for contracts over US\$250,000, and price comparison for contracts between US\$50,000 and US\$250,000. Direct contracting for works costing less then US\$50,000 may be allowed only in exceptional circumstances when a sufficient number of qualified contractors are not available in the region where the works are implemented.

#### Project Component 2 - US\$6.20 million

(total cost of component, including contingencies).

## **Expansion of the Non-formal Preschool Education Program**

**Objective.** The purpose of the project is to provide access to preschool and initial educational services for children of lower income families in rural and marginal urban areas. The project will build upon the experience of the First Basic Education Project where a small scale program was included and tested on a pilot basis. Preschool education gives children under six years of age the opportunity to participate in activities that foster the development of their psychological, motor, social and intellectual abilities and of the basic skills that will be required for success in school.

Research and recent international experience has shown that early stimulation and properly guided educational experiences have a positive effect on a child's performance in primary school, on his or her readiness to learn to read and write, and on the child's probabilities of successfully completing primary school. Children who have not had the benefit of initial or preschool education are more likely to fail in school, enroll late, repeat grades and eventually drop out before completing the basic cycle. High rates of school repetition and dropout are therefore more frequent in areas of extreme poverty where no access to preschool services is available. The project targets children of poor, indigenous communities, and those living in remote areas that are difficult to access.

**Background**. Preschool education is offered to Panamanian children four and five years old in pre-Kindergarten and Kindergarten classrooms, generally attached to primary schools. About 30,700 children, or 47.3 percent of the five-year-old population, are enrolled in Kindergarten classes. An additional 9,000 children are enrolled in pre-Kindergarten classes, representing 15 percent of the four-year-old population. Together, all preschool classes enroll 31 percent of the age group 4-5.

**The CEFACEI program**. The Family and Community Centers for Initial Education (CEFACEI) are designed to provide pre-primary education to groups of 15 to 25 children in indigenous, rural and marginal urban communities. A community educator (*promotora*) who may or may not be trained as a teacher is responsible for teaching the children with assistance of educational materials provided by the Ministry of Education. The Ministry also provides special training to the promoters and educational supervision of

their work. The centers operate in facilities made available by the community.

Initially, about 35 CEFACEIs were established during the late 1980s and early 1990s in communities where the parents could pay a small stipend to compensate the *promotora*. Through the First Basic Education Project, the Bank financed an expansion of the program to 400 new CEFACEIs as a pilot program. The project tested acceptance of the CEFACEI model by parents in poor rural and marginal urban communities, and its operational feasibility on a larger scale with volunteer community educators who are not paid a salary but receive a modest financial incentive from the MIEDUC. Quality improvements were also introduced through newly designed educational materials, manuals for educators and parents, more intensive educational supervision, and a training program involving community educators were already in operation.

The program operates in a classroom provided by either the local government, a community organization or a school. The community is actively involved through the Parents' Association (COPAMACE, *Comité de Padres y Madres Administradores del CEFACEI*), which is responsible for finding a place for the CEFACEI to operate, selecting the *promotora* and handling the quarterly payments of incentives with funds transferred from the MIEDUC, in addition to supporting the *promotora* and collaborating in her work. Promoters are paid at the rate of US\$40 per child per year. Parents of participating children meet with the promoter regularly every other week to discuss topics related to the child's development and the role of parents in stimulating their educational readiness through home activities and appropriate parenting practices. Special promoter manuals and parent-oriented educational materials are provided by the MIEDUC for these parent meetings. The project includes radio programs to reinforce the training given to parents and promoters and to encourage healthy child rearing practices.

Though project implementation is not complete, the program has been well received in the communities where it is operating, and has stirred interest and expectation in other communities. The social assessment completed in early 1998 evaluated the CEFACEI and the mother-to-mother programs. The assessment showed that CEFACEIs enroll an average of 17 children per center, about 56 percent of the children enrolled are 5-years-old, 44 percent are 4-years-old, and only about 1.8 percent dropped out in the last year due to illness or excessive distance from home to center. The study also found that parents value their children's achievements in social behavior, acquisition of learning skills, as well as the nutritional meal provided by the center. They also value their own learning from the parent workshops, which enables them to teach their children. Nearly 50 percent of the centers have active support from local authorities, 67 percent from various community organizations, 60 percent from the church, and 40 percent from NGOs. There is good parent participation in the activities of the centers, mainly by mothers, but in about 40 percent of the cases studied both parents participate equally. The MIEDUC is confident that gradual expansion is justified at this time to strengthen the institutional arrangements which have been developed for the program at the central and regional levels, and to take advantage of the momentum that has been generated. The project will finance the establishment and operation of about 600 additional community preschool education centers in the targeted areas and provide in service training and technical assistance to the promoters and to members of the COPAMACEs..

The Home-Based Initial Education (Mother-to-Mother) Program. Another way of providing educational stimulation to children under six years of age is to train their parents in better methods of child rearing and enhance their skills to guid their children through appropriate educational and developmental activities as they grow up. This indirect approach to early childhood education has been found very effective in other Bank financed projects, such as the Mexico Initial Education Program (PRODEI).

Parents are the first educators and their behavior toward their children has a powerful influence in helping their children's mental and social development in the crucial early years.

The initial education program has been designed in Panama to reach the children in remote localities with scattered populations, not easily accessible to regular preschool education programs or CEFACEI. The program consists of a group of about fifteen parents or other family members working under the guidance of a parent leader (most frequently a mother, like the majority of program participants) selected by the community and trained by the MIEDUC project staff. The group meets about once every two weeks for two periods of ten months each to receive instruction in a series of thematic units covering different aspects of child development and child rearing practices. Participants are provided with a set of manuals summarizing the contents of the units, which they can take home and use as references and guidebooks. They discuss their own experiences, compare them with the recommendations of the manuals, and talk about how their habits and practices have changed as they get to understand their children better.

Parent leaders are trained through a five-day initial workshop and four follow-up three-day workshops over the period of two years that their work with the group lasts. Their training includes skills in group dynamics, recognizing the characteristics of childhood in the rural communities where they reside, and the contents and mode of operation of the program, as well as the materials they will be working with. It also includes strategies for working with the families and communities in the Family Orientation Program. A program supervisor is assigned by the MIEDUC to each group of about twenty parent leaders, and is responsible for the training of the parent leaders for periodic monitoring of the progress of each group of parents and for mobilizing the community to support the program. Supervisors are salaried staff of the MIEDUC, and they in turn are trained in two ten-day courses at the start of the first and second years of the program.

Parent leaders are paid a stipend of US\$50 per year for each participating parent in their group. The first Bank-financed Basic Education project started the Mother-to-Mother program with a total of about 120 groups, as a pilot program focused on the predominantly indigenous populations in the provinces of Chiriqui and Veraguas. Educational materials have been developed and distributed to participating parents and parent leaders and are being evaluated during implementation. Early experiences suggest that it will be necessary to introduce some materials in indigenous languages for use by participants who do not speak Spanish.

The proposed project will study the possibility of producing and testing indigenous language materials. It will also introduce adjustments in operational procedures in order to ensure that fathers and other family members, as well as other members of the community, become involved in the program. The project will finance gradual expansion of the program to about 400 additional groups in rural and marginal urban areas, including indigenous areas and provide in-service training and technical support and educational materials to the parent leaders and supervisors. It will also include revision of the printed educational materials and training of central and provincial technical teams. Currently, financial management is centralized and payments are made to educators by the central level. As the project develops, and the system becomes too cumbersome to be managed centrally, operational responsibility will be gradually transferred to regional offices of the MIEDUC with the support of local community groups such as COPAMACEs and only coordination and policy functions will be retained at the central level.

**Implementation.** The Directorate for Initial Education (DIE), under the General Directorate of Education, is responsible for implementation of the Preschool and Initial Education component, including the training of parent leaders and supervisors, with the support of the regional offices of the MIEDUC and local community organizations (COPAMACE). Targeted communities will be selected by the MIEDUC initial

education directorate based on the poverty map. Curriculum design and development of educational materials and promoter manuals will also be the responsibility of the DIE. Promotion of the program, organization of the COPAMACE and the parent groups for initial education, selection and training of the promoters and parent leaders, and day-to-day supervision of the educational activities will be the responsibility of the MIEDUC regional offices, as well as administration of program operations, payment of stipends to promoters, organization of training events and collection of local operational and financial data.

To refine the design of the preschool and initial education component and to ensure successful implementation, training visits were made during the second half of 1998 by a group of about 25 Panamanian educators to the CINDE program in Colombia, and another group of 7 to the PRODEI program in Mexico, to study the structure and operation of those programs. An intensive four-week program will take place to revise the materials according to the criteria already developed and to define the monitoring and supervision system, to have them in place when the implementation of the project begins. The MIEDUC will revise the educational materials currently being used for the CEFACEI and the Home Based Initial Education programs, and will seek to establish coordination mechanisms and clarify the respective roles of the MIEDUC and the Ministry of the Family, Childhood and Youth in early childhood education.

### Project Component 3 - US\$ 5.20 million

(total cost of component, including contingencies).

### Institutional Strengthening of the Education System

The main objective of this component is to support the government policy to decentralize educational planning and decision making to the regional and local levels and to expand community participation in the management of schools. The philosophy and mechanisms to implement this policy are spelled out in the Ten-year Strategy for Modernization of Education in Panama 1997-2006, published by the MIEDUC in October, 1996.

Educational regions were created by Presidential decree on September 4, 1997 for the purpose of decentralizing educational administration and promoting greater efficiency in educational decision-making. Each region corresponds to a province, which is the major political division of the country, except that the province of Panama is divided into four regions because of its size. An additional region covers the area of San Blas, a predominantly indigenous area on the Northern coast or Panama which is not a province, making a total of thirteen regions. Each regional office is headed by a regional director representing the MIEDUC.

The regional education offices have responsibility for planning, supervision, and general administration of the education system in their respective jurisdictions. They also are responsible for planning and implementing teacher training activities in coordination with national MIEDUC offices. In addition, the regional education offices promote change and innovation in the school system, including strengthening participation by parents, educators and other community organizations in educational projects. School supervision operates at the Zone level under the authority of the MIEDUC Regional Director, with about 20 schools assigned to each Zone supervisor. The MIEDUC plans to establish approximately 150-155 school zones in the country. An intermediate level of decentralized administration is planned to be established between the regional board and the school zone, but its functions and geographic jurisdiction

have yet to be defined.

The government has requested the Bank to support implementation of the decentralization process and encouraging more dynamic community participation in the governance of schools through training and strengthening of the regional offices of the MIEDUC.

The project will provide technical assistance and training to strengthen the capacity for administrative and financial management at the central, regional and local levels. For this purpose it will support implementation of a series of workshops with regional, provincial and central education officials to define the operational structure and the functions to be performed at each level.

The Bank-financed First Basic Education Project is supporting the development of a Management Information System to improve sector planning and personnel management, including human resources administration, budgeting, accounting, purchasing, warehouse inventories, educational statistics and school map. The proposed project will continue this support to ensure adequate implementation. The system will establish linkages between the central and regional levels. Other institutional development activities are being financed by the on-going, InterAmerican Development Bank (IDB) financed educational development project, including educational planning, school management, community participation, curriculum change, and teacher training.

The project will continue to support the implementation of a national assessment system to establish student achievement levels in mathematics and language at the third and sixth grade levels.

Project Component 4 - US\$2.30 million (total cost of component, including contingencies).

### **Project Administration**

This is not an additional investment component of the project, but represents the estimated cost of management and coordination of project implementation as described in Section C.4 of the PAD, including primarily staff and operation expenses of the Project Coordination Unit (PCU), project reporting and auditing.

# Annex 3: Estimated Project Costs PANAMA: PA/BASIC EDU II

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million	
1. Quality Improvement of Basic Education	28.00	13.15	41.15	
2. Expansion of the non-formal Preschool Education Program	3.60	2.10	5.70	
3. Institutional Strengthening of the Education System	4.20	0.60	4.80	
4. Project Management	2.10	0.00	2.10	
Total Baseline Cost	37.90	15.85	53.75	
Physical Contingencies	1.30	1.00	2.30	
Price Contingencies	1.80	0.80	2.60	
Total Project Costs	41.00	17.65	58.65	
Front-end fee		0.35	0.35	
Total Financing Required	41.00	18.00	59.00	

Project Cost By Category	Local US \$million	Foreign US \$million	Total US \$million
Goods	9.83	10.51	20.34
Works	8.28	5.50	13.78
Services	2.11	0.82	2.93
Training	0.86	0.37	1.23
Scholarships	9.40	0.00	9.40
Transfers to COPAMACEs	0.80	0.00	0.80
Teachers and promoters salaries	6.02	0.00	6.02
Project administration costs	0.57	0.36	0.93
Other operating costs	3.13	0.09	3.22
Total Project Costs	41.00	17.65	58.65
Front-end fee		0.35	0.35
Total Financing Required	41.00	18.00	59.00

## Annex 4: Cost Benefit Analysis Summary PANAMA: PA/BASIC EDU II

The proposed project has three components: (i) quality improvement of basic education (rehabilitation of educational infrastructure, provision of educational materials, and a pilot project for distance education "Telebásica"); (ii) expansion of non-formal preschool education (CEFACEI and Home-Based Initial Education programs); and (iii) institutional strengthening. Separate internal rates of return were calculated for each sub-component. The financial impact of the institutional strengthening component was included only in the calculation of the overall internal rate of return of the project; no attempt was made to find a separate internal rate of return for this component, since its benefits are difficult to measure.

## Summary of Benefits and Costs:

## Benefit-Cost Analysis: Internal Rates of Return (IRR)

Results indicate that overall, the project is economically viable. If the project's full costs are considered (including capacity building, institutional strengthening, and the opportunity cost to households of children attending school) the return for the project as a whole is estimated at 22 percent. Component specific analysis indicates that Rehabilitation of Infrastructure has the highest economic return, and that the CEFACEI and Initial Education component has the lowest economic returns. The internal rate of return (IRR) for the TELEBASICA component, as a whole, is conservatively estimated at 15 percent; for the CEFACEI and Initial Education component 14 percent; for the educational materials component 23 percent; and for the rehabilitation of educational infrastructure 24 percent. If one excludes the opportunity costs from this analysis, then the IRR are 17 percent for Telebásica, 15 percent for CEFACEI and Initial Education, 28 percent for the Educational Materials component, and 30 percent for the rehabilitation of educational infrastructure. The overall IRR in this case is 26 percent. If on the other hand one assumes different case scenarios, namely that GDP would grow at only 1 percent, per year in nominal terms, everything else constant, the IRR for the Telebásica component would still be 10 percent, for the CEFACEI and Initial Education component would be 9 percent, for the Educational Materials component would be 16 percent, and for the Rehabilitation of Infrastructure component would be 17 percent. With this lower GDP growth rate the return for the project as a whole is estimated at 15 percent (see Table 1).

Program	Baseline Case	Worst-Case Scenario	Assumptions of Worst-Case Scenario
Telebásica	15	10	GDP grows 1% a year
CEFACEI and Initial Education	14	7	GDP grows 1% a year, improvement in repetition rates is 25%; dropout rates do not change
Educational Materials	23	13	GDP grows 1% a year; improvement in repetition rates is 5%; dropout rates do not change
Rehabilitation of Infrastructure	24	12	GDP grows 1% a year; improvement in repetition rates is 5%; dropout rates do not change
Total Program	22	12	GDP grows 1% a year; improvement in repetition rates is 5%; dropout rates do not change

 Table 1: Estimated Internal Rates of Return (%)

a/ Includes Institutional Strengthening and Administration costs.

It must be noted that the IRR as calculated should be thought of as lower-bound estimates, as they exclude many benefits that are hard or impossible to measure in monetary terms. In particular, the benefit-cost analysis assigns no independent benefits to the Institutional Strengthening component, treating it only as costs or supporting activities of the other four components. Furthermore, it does not take into account such effects of an overall better educated labor force on productivity and on life-time earnings profiles.

#### **Benefits.**

In broad terms, the measurable benefits from the project are: (i) the improvement in repetition and dropout rates; (ii) increased coverage of basic education (primary and lower secondary); (iii) gains from maintaining and expanding the school infrastructure; and (i) the increase in expected wages of better-educated individuals. The IRR estimates do not include monetary estimates of non-pecuniary benefits, such as that basic education helps reduce poverty by increasing the productivity of the poor, by reducing fertility rates and improving health. This analysis also excludes the positive externalities that arise from a better educated population and the spillover effects of a project that by targeting children from low-income families, will positively impact the population income distribution; or that basic education is critical for economic growth and poverty reduction.

**Telebásica.** This pilot component would benefit a total of 2,200 students, about 600 students per year. It is assumed that the project reaches students who would otherwise not have had the opportunity to enroll in secondary school. The benefits from the project are the expected gains in lifetime income.

**CEFACEI and Initial Education.** A total of 600 new CEFACEIs centers (150 centers per year— and 400 Initial Education Groups-100 groups per year, will be opened. With an estimated 20 children per CEFACEI and 30 children per Initial Education center, this means that 12,000 children will benefit from the program. Without the project, only about 20 percent of those children would otherwise have had access to pre-school education. It is well documented in the literature that children who attended pre-school education perform substantially better in primary school. For this cohort of children who will attend pre-school, we would observe a decrease in the repetition and dropout rates. The IRR for the CEFACEI and initial education component assumes that children who attend pre-school will perform 50 percent better than non-preschooled children in terms of repetition rates, and 20 percent better in terms of dropout rates. The increased internal efficiency of the school system is reflected in the fact that typical student will finish primary school in 0.6 years less (6.4 years versus 7 years). In addition to the increased efficiency of the school system, there are the benefits from increased expected earnings as more children will finish primary education. As more children finish primary school at an earlier age, it can furthermore be assumed that a higher proportion of the affected children will continue their education and enroll in lower secondary schools as well.

**Educational Materials.** The project targets 280,000 students in primary and lower secondary education. We divided this number into 40,000 students per grade in primary school and 13,000 per grade in lower secondary school. This breakdown is a first approximation; an equal spread over the various grades was assumed to avoid bottlenecks in the second and following years. The benefits come from an increased efficiency of the school system, reflected once again in lower dropout and repetition rates. The IRR for this component assumes a relative decline in dropout rates of 20 percent, and a 15 percent improvement in repetition rates (for both primary and lower secondary school). Additional benefits come from the increased number of students who graduate, thereby increasing their expected lifetime income. This is true both for students who are able to finish primary education and for those who finish lower secondary education.

**Rehabilitation of Educational Infrastructure.** On one side, neglecting school repair or expansion will lead to a decline in the efficiency of the education system. On the other side, repairing schools that are currently in bad shape will contribute to an increase in efficiency. This component is meant to benefit 60 percent of total children enrolled in primary and lower secondary children. (see Table 2). Again, the baseline IRR estimates for this component assume that primary school dropout rates would be 20 percent better if the project is undertaken versus when the rehabilitation is not undertaken. The relative gains in repetition rates were assumed to be 15 percent. As before, additional benefits come from the increased number of students who graduate, thereby increasing their expected lifetime income.

Grade	I	n	III	IV	v	VI	VII	VIII	IX
Students	41,526	37,205	33,207	30,797	27,703	26,075	28,340	22,397	18,131

#### Costs

The full project costs are estimated at US\$278 million (see Table 3). This cost estimate includes US\$59.6 million in costs directly associated with the project, US\$128.8 million for all other expenses (including the extra public and private spending on education), and US\$89.9 million in expected foregone income while the students are in school (opportunity costs).

**Telebásica.** Total costs of this component are estimated at US\$18.5 million. The costs to build the 30 centers (three classrooms each) are budgeted at 12,000 Balboas per classroom, assumed to depreciate at a rate of 5 percent a year. Another 375,000 Balboas will be spent on equipment (televisions etc.), with an assumed depreciation rate of 33 percent a year. In addition to these project costs, there is the yearly cost per student of 1,401 Balboas and the expected foregone income while the students are in school.

**CEFACEI and Initial Education.** The total cost of this component is calculated at US\$31 million. This amount covers all expenses, both public and private. As there will still be children in the program in the fifth year, we budgeted an additional 354.9 Balboas per child (adjusted for inflation).

**Educational Materials**. For this component, a total of US\$5.9 million is budgeted. We spread this over four years to reflect a 25 percent yearly depreciation rate for the materials. Assuming that the government will replace the books to make the gains permanent, we included a renewal rate of 20 percent per additional year.

**Rehabilitation of Educational Infrastructure.** At US\$24.2 million, this component is the largest of the project. This investment is spread over 20 years. In addition it was assumed that the project will generate an annual maintenance cost of 3 percent.

	Program (Millions USS)	Time Unit
CEFACEI, Initial Education	31.0	Annual
Telebásica	18.5	Annual
Educational Materials	77.3	Annual
Rehabilitation of Infrastructure	57.2	Annual
Institutional Strengthening	4.7	Annual

Table 3: Estimated Total Costs for Panama: Second Education Project

#### **Efficiency** Gains

Table 4 depicts the efficiency gains from two project components -- the educational materials and the rehabilitation of educational infrastructure. The project aims to improve the in-school learning environment, which should improve repeater and drop-out rates. The regular computation of these rates during project implementation would help monitor improvement in the internal efficiency of the system. Decreasing the wastage ratio means students stay less time in the education system to graduate. The cost and time implications of such an improvement are discussed in Table 4.

anne a star a		Without the project	With the project
Primary Education	Time average	7.63	7.44
	Cost average	6.98	6.69
	Time efficiency	0.79	0.81
	Cost efficiency	0.86	0.90
Lower Secondary	Time average	4.30	4.22
Education			
······································	Cost average	3.89	3.60
	Time efficiency	0.70	0.71
***************************************	Cost efficiency	0.77	0.83

#### **Table 4: Efficiency Gains from the Project**

#### **Main Assumptions:**

#### **Methodology and Assumptions**

#### **Table 5: Yearly Wages by Education Levels**

Educational Attainment	Yearly Wages (Balboas)
Incomplete Primary Education	1,212
Completed Primary Education	2,076
Completed Secondary Education	4,464

Throughout the calculations, the maintained hypothesis was a working life of 45 years. Yearly wages for different education levels were estimated from the 1997 Living Standards Measurement Survey (LSMS) (see Table 5). These yearly earnings are assumed to grow at an annual rate equal to the GDP growth rate of 5 percent.

To estimate the expected yearly income, the unemployment rates for the category "All Poor" (bottom 40 percent of the population) were estimated from the 1997 LSMS data (see Table 6). The unemployment

rate for people who finished lower secondary education is substantially higher than for people with a less educated background (up to more than twice as much), probably due to higher reservation wages and imperfections in the labor market. However, over the lifetime of a worker this difference in employment opportunity may grow smaller, and as the economy grows, it is likely that this discrepancy will become less pronounced. To incorporate these in the calculations, the unemployment rate for someone with a lower secondary education was taken to be 2.5 times that of an primary school educated person, but to decline linearly by 0.1 percent point per year of working life until both unemployment rates reach the same level.

Age group	15-19	20-24	25-29	30-39	40-49	50-59
Unemployment rate (%)	16.5	13.6	8.9	4.3	3.2	1.3

Table 6: Unemployment Rates by Age group for the Poor

Source: 1997 LSMS.

The yearly public unit cost of providing education was estimated from Ministry of Education (MIEDUC) data and taken to be 354.9 Balboas for pre-school education, 453 Balboas for primary school, and 1,401 Balboas for lower secondary school. The cost per child is assumed to increase at the general inflation rate of the economy (2 percent by assumption). The assumed per-grade repetition rates are displayed in Table 7. For dropout rates, we take an average dropout rate of 1.2 percent for primary school (source: 1997 LSMS) and 6 percent for secondary school (based on MIEDUC data used in the First Basic Education Project). For the private yearly unit cost to studying, the following amounts were used: 50 Balboas for pre-school, 106 Balboas for primary school, and 253 Balboas for primary school. Finally, the opportunity cost to studying was assumed to be 404 Balboas for primary school and 1,038 Balboas for lower secondary school (respectively one-third and one-half of the average yearly earnings).

### **Table 7: Repetition Rates by Grades**

Grade	I	II	m	IV	V	VI	VII	VIII	IX
Repetition Rate	17.7	13.5	10.1	7.2	5.6	2.0	10.9	10.7	8.0

Source: Estadistica Educativa, MIEDUC.

## Sensitivity analysis / Switching values of critical items:

## Annex 5: Financial Summary PANAMA: PA/BASIC EDU II

#### Years Ending June 30

			IMPLEM	ENTATION P	ERIOD	and a state of some	
Γ	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required Project Costs							
Investment Costs	4.5	10.3	15.2	14.5	4.0	. 0.0	0.0
Recurrent Costs	1.1	1.5	2.5	3.2	1.9	0.0	
Total Project Costs	5.6	11.8	17.7	17.7	5.9	0.0	0.0
Front-end fee	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Financing	5.9	11.8	17.7	17.7	5.9	0.0	0.0
Financing							
IBRD/IDA	3.5	7.0	10.5	10.5	3.5	0.0	0.0
Government	2.4	4.8	7.2	7.2	2.4	0.0	
Central	0.0	0.0 -	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	5.9	11.8	17.7	17.7	5.9	0.0	0.0

			OPER	ATIONAL PE	RIQD		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recurrent Costs	2.0	3.9	3.9	3.9	3.9	3.9	3.9
Total Project Costs	2.0	3.9	3.9	3.9	3 <b>.9</b>	3.9	3.9
Front-end fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Financing	2.0	3.9	3.9	3.9	3.9	3.9	3.9
Financing							
IBRD/IDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Government	2.0	3.9	3.9	3.9	3.9	3.9	3.9
Central	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	2.0	3.9	3.9	3.9	3.9	3.9	3.9

### Main assumptions:

The project's incremental recurrent costs correspond to the following: (i) payments to promoters of the non-formal preschool education program, as well as to supervisory and central level incremental staff; (ii)

non durable educational materials for the preschool program; (iii) hiring of teachers for the distance education pilot program; (iv) scholarships for needy students, and (v) costs related to the coordination of project activities, infrastructure maintenance and maintenance of office equipment purchased with loan funds. These will be fully financed by the Government from the beginning of the project. They represent less than two percent of the Ministry of Education budget and are considered negligible and easily absorbed by the Government through savings by promoting system efficiency.

Because of Panama's high level of expenditures compared to other countries in the region, one of the main objectives of the project's institutional strengthening component is to increase the efficiency of education expenditures through decision making based on an improved management information system.

## Affordability of the Project

The tentative project financing plan includes US\$24.0 million in Government financing. US\$27.3 million if one also considers the various other effects, such as replacing textbooks after the project is over, the costs to the school system of having less dropouts in lower secondary school, etc. We applied the same benchmark hypotheses as in the economic evaluation to estimate the impact of the project on MIEDUC's budget. In addition we assumed that the share of the education budget in GDP remains the same over the years (at roughly 6 percent), implying that the budget also grows at 5 percent per year.

The projected impact of the Project on the budget of MIEDUC is shown in Table 10. The table includes the impact both when all costs are considered (including extra per unit cost of increased enrollments) and when only the direct project costs are taken into account. Under the baseline scenario assumptions and including all the costs (including the per unit spending due to higher enrollment), the Project would imply an increase in the Education Budget between 5.3 percent and 13.2 percent annually. If only the direct costs from the Project are considered, then the impact on the Budget would be in the order of 1.2 percent to 1.5 percent annually.

Year	MIEDUC Budget before Project (US\$ million)	MIEDUC Budget, All Project Costs (US\$ million)	MIEDUC Budget, Direct Project Costs (USS million)	Project Impact, All Costs (%)	Project Impact, Direct Project Costs (%)
1	369.9	417.8	402.0	5.3	1.28
2	416.7	454.6	423.1	9.1	1.51
3	437.6	491.6	444.0	12.3	1.46
4	459.5	520.3	465.3	13.2	1.27
5	482.4	532.8	488.5	10.4	1.27
6	506.6	556.2	513.0	9.8	1.27
7	531.9	580.1	538.6	9.1	1.27
8	558.5	607.8	565.6	8.8	1.27
9	586.4	640.5	593.8	9.2	1.27
10	615.7	673.6	623.5	9.4	1.27

### Table 8: Impact of Project on MIEDUC Budget

The respective increases in spending, including either all the costs versus the direct costs from the Project, should be thought of upper and lower bounds to increased spending respectively. Based on the percentage impact of the project on the budget of MIEDUC, we conclude that the project will not put an unfeasible burden on the Education Budget; and it should be fairly easy for MIEDUC to absorb the additional expenditure.

Table 9 shows the impact on the budget of the Central Government. Including the total Project costs into the analysis would increase the overall Budget of the Central Government by 0.8 percent to 2 percent annually. If only the direct costs of the Project are included in the calculation, then the impact on the Budget would only be about 0.2 percent annually. Again, we conclude that the Project will not put an unfeasible burden on the Budget.

Year	Budget before Project (USS million)	Budget, All Project Costs (USS million)	Budget, Direct Project Costs (USS million)	Project Impact, All Costs (%)	Project Impact, Direct Project Costs (%)
1	2,614	2,635	2,619	0.8	0.19
2	2,745	2,783	2,751	1.4	0.23
3	2,882	2,936	2,888	1.9	0.22
4	3,026	3,087	3,032	2.0	0.19
5	3,177	3,228	3,183.8	1.6	0.19
6	3,336	3,386	3343.0	1.5	0.19
7	3,503	3,552	3510.2	1.4	0.19
8	3,678	3,728	3685.7	1.3	0.19
9	3,862	3,917	3870.0	1.4	0.19
10	4,055	4,114	4063.5	1.4	0.19

 Table 9: Impact of Project on Central Government Budget

## Annex 6: Procurement and Disbursement Arrangements PANAMA: PA/BASIC EDU II

## **Procurement**

**Procedures.** Procurement for the proposed project would be carried out in accordance with the Bank's guidelines on procurement of works, goods and services *Guidelines: Procurement under IBRD loans and IDA Credits* (January 1995, revised in September 1997 and in January 1999), and *Guidelines: Selection and Employment of Consultantsby World Bank Borrowers* (January 1997, revised September 1997 and January 1999), and the provisions stipulated in the Loan Agreement. Procurement arrangements are summarized in Table A.

The project would include procurement of civil works for rehabilitation of school infrastructure, the procurement of textbooks, teacher guides, educational materials, training, school furniture, and office and computer equipment. In addition, the project would finance studies and technical assistance services. Procurement of civil works will be carried out by the MIEDUC or by an outside entity selected by the MIEDUC and acceptable to the Bank, and the PCU will be responsible for controlling and monitoring their execution. Procurement for the other components of the project mentioned above will be carried out by the Project Coordination Unit (PCU), a unit within the Ministry of Education (MIEDUC). This unit will have overall responsibility for procurement of goods and services under the project, starting with the preparation of bidding documents (with the exception of technical specifications and others inputs to be provided by each implementing unit), invitation to bid and up to the selection of the supplier and/or contractor. The PCU shall include a qualified Procurement Officer who will be responsible for the preparation of standard bidding documents and the implementation of procurement according to the Bank's guidelines and the Operational Manual (OM).

The MIEDUC is revising the OM, which would be used by both procurement units (FIS and PCU) and, it will include procurement procedures, standard bidding documents, financial and disbursement procedures, and procurement legal covenants. The issuance of the OM is a Condition of Loan Effectiveness. The OM would also make provisions for supervision, reporting and auditing requirements.

**Procurement of Civil Works.** Civil works contracts would consist mainly of repairs and rehabilitation of classrooms, and rehabilitation of schools amounting to approximately US\$13.4 million equivalent. The types of civil works included in the Project may be procured as follows:

- (a) International Competitive Bidding (ICB) shall be used for contracts which cost US\$500,000 or over;
- (b) National Competitive Bidding (NCB) may be used for contracts less than US\$500,000 per contract up to an aggregate amount of US\$9.8 million;
- (c) Price Comparison for contracts costing less than US\$250,000 up to an aggregate amount of US\$1.6 million may be awarded on the basis of not less than three quotations from qualified local contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest evaluated price for the required work, and who has the experience and resources to complete the contract successfully. The Standard Regionalized Unit Prices System currently used by the FIS will not be acceptable as a price reference during the comparison of quotations.

(d) Direct Contracting (DC) in accordance with the provisions of paragraph 3.7 of the Guidelines may be used only with the Bank's prior agreement and on an exceptional basis in schools located in distant rural areas where competition is not possible, for contracts costing less than US\$30,000 per contract, up to an aggregate amount of US\$0.2 million.

**Procurement of Goods and Equipment.** The project would finance contracts for goods to a total value of US\$18.4 million equivalent. The types of goods to be procured under the project consist of: (i) computers; (ii) school furniture; (iii) educational materials, and (iv) office equipment and furniture.

The MIEDUC may procure goods as follows:

- (a) International Competitive Bidding (ICB) shall be used for goods estimated to cost US\$250,000 equivalent or more. In the evaluation of bids, a margin of preference may be granted to domestic manufacturers in accordance with Appendix 2 of the Bank's Guidelines. Textbooks (other than those covered by paragraph (d) below), teachers and students guides and library books, shall be awarded under ICB two-stage bidding procedures in accordance with paragraph 2.6 of the Bank's Guidelines, using bidding documents satisfactory to the Bank. Awards will be made by individual packages or by groups of packages, depending on the combination that produces the lowest evaluated total bid cost;
- (b) National Competitive Bidding (NCB) may be used for school furniture, educational materials, printing services, office equipment and furniture estimated to cost less than US\$250,000 equivalent, up to an aggregate amount of US\$9.76 million. As a general rule, procurement of school furniture shall be packaged in contracts by geographical areas;
- (c) Shopping for smaller purchases, school furniture, and educational materials, costing less than US\$50,000 equivalent per contract, may be awarded on the basis of three quotations up to an estimated aggregate amount of US\$1.43 million. The contracts would be awarded on the basis of not less than three quotations from qualified local suppliers in response to a written invitation. The invitation shall include a detailed description of the goods, including basic technical specifications, the required delivery date, and a basic form of agreement acceptable to the Bank. The award shall be made to the supplier who offers the lowest evaluated price quotation for the required goods, and who has the experience and resources to deliver the goods. School furniture. The project would finance about US\$0.7 million of school furniture to be distributed to new classrooms and to replace existing old furniture (including all the escuelas rancho) located in isolated rural areas, or marginal urban areas, with mostly indigenous populations. On an exceptional basis, furniture for schools in isolated areas may be procured locally for individual contracts costing up to US\$30,000 each, with to an aggregate amount not to exceed \$0.1 million.
- (d) Direct Contracting would apply to the direct purchasing of books, up to US\$4.44 million. Contracts will be awarded to suppliers who were selected under competitive procedures under the on-going project, provided that they would involve the same titles, not available from other providers, and that the prices remain competitive. Prices should not be higher than those agreed in the original contract, with reasonable adjustments for inflation

**Procurement of Technical Assistance, Training and Audits.** MIEDUC would procure all the consulting services: these include Technical Assistance (TA) and/or training for capacity building activities, technical assistance for the preparation of manuals and guidelines, supervision, ex-post evaluation of completed projects, audits, management services, and contracts of short and long-term consultants in the PCU. The project would finance the transportation and per diem costs of participants in training and monitoring

workshops. Before negotiations broad terms of reference for training programs, technical assistance and studies to be financed under the project will have been reviewed and agreed upon with MIEDUC. In the contracting of small consultant services, MIEDUC will use standard invitation packages and contract models as agreed with the Bank (par. 3.10).

Consulting services shall be procured following the Bank's Consultant Guidelines and using the Bank standard request for proposals. The methods of selection to be followed would be: (i) Selection-Based-on Quality-and-Cost for TA capacity building activities; (ii) Quality Based Selection for specialized technical assistance, up to an aggregate amount of US\$1.0 million; (iii) Least Cost (LCS) or Fixed Budget (FBS) Selection, up to an aggregate amount of US\$4.0 million for supervision of works, financial and procurement audits, and training; and (iv) consultant services including long-term consultants in the PCU equal to or more than US\$40,000 per contract will be awarded using short lists; and for amounts less than US\$50,000, Individual Consultants' Qualifications, as described in Chapter V of the Guidelines, up to a total aggregate limit of US\$1.0 million.

**Expenditures not Subject to Competitive Procedures.** Approximately US\$1.7 million of Bank financing expenditures would not be subject to competitive procedures. Those activities are training-related expenditures, such as transportation and per diem. Scholarships for students and fees for *promotoras*, and mother-leaders (community educators) will be financed by MIEDUC. The cost of these items are based on the MIEDUC's standard for these type of expenditure, which were reviewed by the Bank and found satisfactory.

**Bank Prior and Post Review.** For Works and Goods, (i) all **ICB and two-stage ICB** procurement; (ii) the first two **NCB** contracts each year, regardless of value; (iii) the bi-annual program of FIS works subprojects procured under price comparison each year (iv) the first two Shopping procedures for school furniture, computers and training materials, printing, and distribution services, each year, regardless of value; (v) all direct contracts of works below US\$30,000 (including technical specifications and the draft contract); (vi) all direct purchasing of textbooks; and (vii) procurement arrangements in accordance with Appendix 1 of the Guidelines. The rest of the procurement of works and goods will be subject to ex-post review by the Bank.

Regarding the review of consultant services, the following will be subjected to prior review: (i) all Terms of Reference and requests for proposals for contracts to cost US\$100,000 equivalent or more for services provided by firms, as well as financial and procurement audits, (ii) TORs and terms of employment for individual consultant contracts valued less than US\$50,000 equivalent, selected from the program, which is to be updated twice a year; (iii) all terms of reference and CVs for key personnel of the PCU, irrespective of value; and (iv) procurement arrangements in accordance with Appendix 1 of the Consultants Guidelines.

Prior review is expected of approximately 35 percent of all contracts under the loan. Although the level of prior review would be relatively low, this would be compensated for in several ways: (i) as part of the annual ex-post review of subprojects, external procurement auditors, contracted by MIEDUC under the loan, will conduct performance audits covering technical, environmental, managerial and procurement aspects on a sample of subprojects satisfactory to the Bank; (ii) this audit of procurement aspects will include both physical audits and procurement procedures; and (iii) the Bank's supervision missions, two per year, will conduct random reviews (at least one for each five contracts), and include field visits and review of procurement documentation. A procurement specialist/analyst will be part of the supervision teams.

Procurement Plan. A Procurement Plan for the Project satisfactory to the Bank for the four-year life of

the project was agreed during negotiations, and shall be updated every January on an annual basis during the entire life of the project, and whenever the Bank considers it necessary. The plan shall specify the aggregate amounts for each type of expenditure (civil works, goods and consultants), procurement methodology (international and national competitive bidding, price comparison, local shopping, etc.), time frames and other relevant details. Standard Documents for national procurement and request for proposals for contracting of consultants will be updated by the PCU before the very first request for proposals. MIEDUC and the construction implementation contractor will follow procurement procedures detailed in an Operational Manual (OM), satisfactory to the Bank. A project launch workshop to update and familiarize new staff in the PCU and FIS with procurement, disbursement, reporting and auditing requirements would be organized at an early stage in project implementation., before loan effectiveness.

Advertising. A General Procurement Notice is scheduled to be published in the United Nations Development Business, before Negotiations. Specific Procurement Notices will be published, either in Development Business, or regionally or locally according to the procurement method used for that particular acquisition.

**Procurement Records.** Detailed Procurement records, reflecting the project's supply of works, goods and consultant services including records of time taken to complete key steps in the process and procurement activities related to supervision, review and audits, will be maintained by the PCU. These records will be maintained for at least two years after project closing date. The records for works and goods will include public notices, bidding documents and addenda, bid opening information, bid evaluation reports, formal appeals by bidders and outcomes, signed contracts with related addenda and amendments, records on claim and dispute resolution, and any other useful information. The records for consultants services will include public notices for expression of interest, requests for proposals and addenda, technical and financial reports, formal appeals by consultants and outcomes, signed contracts, addenda and amendments, records on claims and dispute resolution, and any other useful information.

**MIEDUC's Procurement Capacity**. A capacity assessment of the two procurement implementing agencies; namely the PCU and the procurement implementation contractor with an analysis of legal aspects, project management, organization and functions, support and control systems, record keeping, staffing, general procurement environment, private sector assessment, and overall risk assessment, was approved by the RPA on September 28, 1998. The preparation of the assessment included meetings with PCU staff. It was updated May 2000. due to changes in project design and in administrative personnel at MIEDUC. It is important to indicate, as a risk factor, that the management of MIEDUC (PCU) is new and in the process of learning about Bank procedures. The procurement officer in the PCU is working in the ongoing project and will provide continuity, experience and capacity. Since his major experience resides with goods, it is recommended that he obtain more experience in procurement of works in order to coordinate and monitor construction implementation contractor subprojects. Detailed recommendations of the Assessment are included in the Project design and in the Project OM that will be updated. The project is rated "Average Risk" in terms of procurement aspects.

**Civil Works Contracts.** The infrastructure team within the PCU has acquired substantial experience in coordinating and supervising the implementation of FIS civil works subprojects under the Basic Education I Project. Given that almost all civil works in the proposed project would be implemented by the MIEDUC and a construction implementation contractor, the infrastructure PCU team and the PCU procurement officer will need strengthening from technical assistance provided by external consultants in order to: (i) monitor contracting procedures; and (ii) support Parent Associations, who will be supervising locally contracted works. The PCU will also be responsible for ensuring the timely provision of qualified technical assistance to the Parent Associations to conduct feasibility studies under their subprojects, and train them

to administer contracts. The Procurement Officer will be responsible for ensuring compliance to Bank procedures. An action plan has been agreed with MIEDUC during negotiations to ensure that all procurement of smaller works will be executed in accordance with the Bank's guidelines.

Goods and Consultants Services Contracts. MIEDUC's procurement capacity in the PCU has grown substantially under the ongoing project, specially regarding ICB procurement for goods and services. Some actions regarding planning, file management and improved communication still need to be taken by the MIEDUC to increase the PCU's efficiency and coordination with both MIEDUC and contractor implementation units. An action plan will be agreed with MIEDUC during negotiations.

The OM shall be updated by Negotiations and be a condition of Loan Effectiveness to ensure acceptable procedures for procurement (including standard bidding documents and requests for proposals), accounting, disbursement and auditing, as agreed for all Bank operations. The OM shall also include: (i) specific operating and control mechanisms agreed under the financial and physical monitoring system (FMS); and (ii) procedural guidelines specified for FIS.

**Special Provisions in Procurement**. A Country Procurement Assessment Report (CPAR) of Panama's procurement procedures, prepared by the Bank in October, 1994, indicates that they are not fully compatible with the Bank's procurement guidelines. The Republic of Panama's Law No. 56, December 1995, and Decree No. 18, January 1996, provide the basic rules for procurement of goods and services and constitute the country's regulatory framework for procurement. At Negotiations, special provisions were agreed upon so that the principles indicated below will govern all procurement of goods and services.

A. The following principles of procurement shall expressly govern all procurement of goods, works and printing services for educational and assessment materials under International Competitive Bidding:

- 1. Foreign bidders shall not be required to:
  - (a) Have a local representative for purposes of submitting bids;
  - (b) Be registered with local authorities as a prerequisite for bidding; and
  - (c) Be associated with local contractors or suppliers.
- 2. Bids may be:
  - (a) Submitted at any reasonable time before bid opening, either by mail, courier or in person; and
  - (b) Accompanied by a bid security in the form and amount specified in the standard bidding documents.
- 3. No provisional award shall be made at the time of bid opening.
- 4. No minimum number of bids shall be required as a condition to award a contract.
- 5. Contracts shall be awarded to the bidder whose bid has been evaluated as the lowest responsive bid, in accordance with criteria clearly set forth in the standard bidding documents.
- 6. After contract award, performance securities shall be provided within the time period, and in the form and amount specified in the standard bidding documents.
- **B.** The following principles of procurement shall expressly govern all procurement of works and goods under National Competitive Bidding:

- 1. Bids may be:
  - (a) Submitted at any reasonable time before bid opening, either by mail, courier or in person;
  - (b) Accompanied by a bid security in the form and amount specified in the standard bidding documents.
- 2. No provision award shall be made at the time of bid opening.
- 3. No minimum number of bids shall be required as a condition to award a contract.
- 4. Contracts for civil works shall provide for mobilization advances, whenever appropriate.
- 5. Contracts shall be awarded to the bidder whose bid has been evaluated as the lowest responsive bid, in accordance with criteria clearly set forth in the standard bidding documents.
- 6. After contract award, performance securities shall be provided within the time period and in the form and amount specified in the standard bidding documents.
- 7. Price adjustment provisions, acceptable to the Bank, may be included in work contracts.
- **C.** The following principles of procurement shall expressly govern all procurement of consultants' services:
- 1. Foreign consultants shall not be required to:
  - (a) Be locally registered as a condition of participation in the selection process;
  - (b) Give any participation in or share of any consulting contracts to any local firm or person for the purposes of participating in the selection process or receiving an award, except in connection with a joint venture arrangement where: (i) a sufficient number of capable domestic firms or individual consultants exist to allow a foreign consultant reasonable freedom of choice; (ii) the contributions of either party to the joint venture arrangement will not be constrained by any prescribed manner or extent of participation; and (iii) the foreign consultant is not required to associate itself with any specific named domestic firms or individual consultants;
  - (c) Furnish any certificate issued by a local authority about their legal capacity or tax status for the purposes of submitting a proposal; and
  - (d) Submit their proposals in person.
- 2. Consultants shall be selected from a short list of firms invited to submit proposals on the basis of terms of reference, employment conditions and evaluation criteria clearly set forth in the respective letter of invitation.

### Procurement methods (Table A)

		Procurement	Method		
Expenditure Category	ICB	NCB	Other <sup>2</sup>	N.B.F.	Total Cost
1. Works	0.00	11.17	2.23	0.00	13.40
	(0.00)	(7.85)	(2.00)	(0.00)	(9.85)
2. Goods	3.08	9.16	6.16	0.00	18.40
	(3.08)	(9.02)	(5.30)	(0.00)	(17.40)
3. Services	0.00	0.00	7.05	9.40	16.45
	(0.00)	(0.00)	(6.05)	(0.00)	(6.05)
4. Miscellaneous	0.00	0.00	1.70	8.69	10.39
	(0.00)	(0.00)	(1.70)	(0.00)	(1.70)
5. Front-end fee	0.00	0.00	0.00	0.36	0.36
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Total	3.08	20.33	17.14	18.45	59.00
	(3.08)	(16.87)	(15.05)	(0.00)	(35.00)

## Table A: Project Costs by Procurement Arrangements (US\$ million equivalent)

<sup>17</sup> Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies

<sup>2/</sup> Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

	Consultant Services				Selection	Method			
	Expenditure Category	QCBS	QBS	SFB	LCS	CQ	Other	N.B.F.	Total Cost
Α.	Firms	2.45	0.00	2.30	1.30	0.00	0.00	0.00	6.05
		(2.00)	(0.00)	(2.00)	(1.05)	(0.00)	(0.00)	(0.00)	(5.05)
В.	Individuals	0.00	0.00	0.00	0.00	0.00	1.00	9.40	10.40
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(1.00)	(0.00)	(1.00)
	Total	2.45	0.00	2.30	1.30	0.00	1.00	9.40	16.45
		(2.00)	(0.00)	(2.00)	(1.05)	(0.00)	(1.00)	(0.00)	(6.05)

### Table A1: Consultant Selection Arrangements (optional) (US\$ million equivalent)

1\ Including contingencies

Note: QCBS = Quality- and Cost-Based Selection

QBS = Quality-based Selection

SFB = Selection under a Fixed Budget

LCS = Least-Cost Selection

CQ = Selection Based on Consultants' Qualifications

Other = Selection of individual consultants (per Section V of Consultants Guidelines), Commercial Practices, etc.

N.B.F. = Not Bank-financed

Figures in parenthesis are the amounts to be financed by the Bank Loan.

## Prior review thresholds (Table B)

## Table B: Thresholds for Procurement Methods and Prior Review <sup>1</sup>

Expenditure Category	Contract Value Threshold (US\$ thousands)	Procurement Method	Contracts Subject to Prior Review (US\$ millions)
1. Works	>500.0	ICB	- All contracts
Repairs and substitution	<500.0	NCB	
of classrooms and	<300.0	NCB	- First two contracts every
rehabilitation of schools	~250.0		year - Review of the bi-annual
	<250.0	Local shopping at least three	
		quotations	program
2. Goods	>250.0	ICB	- All contracts
School furniture	<250.0	NCB	<ul> <li>First two contracts every year</li> </ul>
	<50.0	Shopping	- First two contracts every
Computers			year
Computers	>50.0	ICB	- All contracts
	<50.0	Shopping	- First two contracts every
			year
Educational materials	<4.0	Direct contracting	- All contracts, including
			copies of specifications and
Training materials			draft contracts
Training materials, printing and distribution	>250.0	ICB	- All contracts
services	<250.0	NCB	- First two contracts every
			year
	<50.0	Shopping	- First two contracts
			regardless of value every
			year
3. Services	· · · · · · · · · · · · · · · · · · ·		All
Consulting firms	>100.0	QCBS	- Prior review: annual
_	<100.0	LCS/FBS	TORs for financial and
			procurement audits.
			- Prior review: professional
Individuals	>50.0	Short lists	services, bi-annual review
(national and			of program contracting.
international)			Program to specify which
			TORs will be reviewed.
			Post-review: random
			sample of contracting
			documents.
			- Prior review: professional
	<50.0	Selection of Individual	services, bi-annual review
	-0010	Consultants (Chapter V)	of program contracting.
			Post-review: random
			sample of contracting
			documents.

## Total value of contracts subject to prior review:

35%

#### **Overall Procurement Risk Assessment**

#### Average

**Frequency of procurement supervision missions proposed:** One every 6 months (includes special procurement supervision for post-review/audits)

and one procurement audit every year.

<sup>1</sup>Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

## **Disbursement**

Allocation of loan proceeds (Table C)

Expenditure Category	Amount in US\$million	Financing Percentage
1. Works - subprojects that include	10.00	80%
rehabilitation of schools and		
substitution of classrooms		
2. Goods - equipment and furniture,	8.64	100% foreign and 90% of local
and computers		expenditures
3. Educational materials - textbooks,	7.00	100% foreign and 90% of local
library books, and other didactic		expenditures
materials		
4. Technical Assistance, Studies, and	4.30	100%
Training		
5. Operating costs, including Project	1.70	80%
Administration		
6. Unallocated	3.36	
Total Ducient Conto	25.00	
Total Project Costs	35.00	
Front-end fee	0.00	
Total	35.00	

### **Table C: Allocation of Loan Proceeds**

Table C above defines the disbursement categories of the project. The proposed Bank loan would be disbursed over a period of about four years to be completed by April 30, 2005. Disbursements will not be made for works, goods and services that have been procured from ineligible sources or that have not been procured according to the Bank's procurement and consultant guidelines.

Financial Management Assessment. The project has in place an adequate organization and staff with enough experience to carry out the necessary financial management activities. Accounting and internal control procedures were found to be acceptable, yet the Accounting and Operational Manuals need to be updated.

The accounting system meets the Bank's respective minimum requirements. Moreover, the software will be upgraded so as to manage integrated financial information, particularly with regards to the production of PMRs in the formats suggested by the Bank. Separate project accounts will be maintained in accordance with accounting principles and practices satisfactory to the Bank. Supporting documentation will be kept by the executing agencies for at least one year after the final disbursement of funds for the project.

Even when financial management capacity is adequate, some areas can be improved. Specifically, project staff agreed to perform an analysis of any existing flow-of-funds' problems and the corrective actions to be taken. In addition, the sharing of financial information among the participating entities needs to be enhanced. An action plan was agreed upon to improve the system, including capability to produce quarterly Project Management Reports (PMRs). Substantial completion of activities planned before the effectiveness date was established as effectiveness condition.

Further details can be found in the Financial Management Assessment Report prepared by the Bank's

Regional Financial Management Unit (LCOAA) and included in project files.

Audit Arrangements. External audit arrangements - which are currently in place under the Basic Education I Project - are satisfactory. Project accounts will be audited annually by independent chartered auditors acceptable to the Bank, under terms of reference in accordance with the respective Bank Guidelines. The external auditors will perform interim visits on a quarterly manner. No later than six months after the end of each fiscal year, the Project Coordination Unit will submit to the Bank certified copies of the annual audit reports.

**Disbursement Arrangements.** Table C above defines the disbursement categories of the project. The proposed Bank loan would be disbursed over a period of about four years to be completed by December 31, 2004. Disbursements will not be made for works, goods and services that have been procured from ineligible sources or that have not been procured according to the Bank's procurement and consultant guidelines. The Project Coordination Unit will be responsible for forwarding disbursement requests to the Bank. These will be in accordance with guidelines set out in the Bank's Disbursement Handbook.

It is expected that the proposed IBRD loan would be disbursed based on Project Management Reports (PMRs). However, until the project is considered capable of producing PMRs in a timely and effective manner, disbursements will be based on "traditional" procedures, including the use of SOEs as follows:

### Use of statements of expenditures (SOEs):

- Contracts for works less than US\$500,000 with the exception of the first two contracts for works.
- Contracts for goods and printing services US\$250,000 with the exception of the first two contracts for goods.
- Contracts for consultants, less than US\$50,000 for individuals and less than US\$100,000 for firms
- Expenditures related to training activities that do not require procurement: travel, per diem and materials for training events, and study tours
- Operating costs.
- Fund transfer to COPAMACES and local school committees.

### **Special account:**

A Special Account in US dollars will be opened in the *Banco Nacional de Panama*, with an authorized allocation of US\$2.7 million which corresponds to about four months of expenditures under the project. The Special Account would be replenished monthly at the borrower's request, but no less frequently than every three months, or whenever one-third of the authorized amount has been withdrawn, whichever comes first - under PMR-based disbursements, the Special Account would be replenished at least quarterly, based on the information presented in the PMRs -. Replenishment applications would be accompanied by reconciled bank statements reflecting transactions made from the account and claimed in the respective applications. Supporting documentation would be maintained by the Borrower for at least one fiscal year after the year in which the last disbursement from the loan took place, and would be available for Bank staff and independent auditors' review. Disbursement applications based on PMRs, once they are allowed by the borrower's FMS, may not raise the balance remaining in the Special Account to more than \$7,200,000.

**Counterpart Funding.** The Government will provide sufficient counterpart funds to implement the project through a revolving account "fondo de trabajo" that will be administered by the

MIEDUC in accordance with terms and conditions detailed in the Operations Manual. The GOP, through the MIEDUC, will extend the life of the existing revolving fund at the Bank of Panama, with not less than US\$250,000 equivalent, as condition of effectiveness. Counterpart funds for the scholarship program will be provided through IFARHU.

**Retroactive Financing.** No retroactive financing will be necessary. Preparatory activities for the project are being financed under the current Basic Education Project and resources from a JGF.

## Annex 7: Project Processing Schedule PANAMA: PA/BASIC EDU II

Project Schedule	Planned	Actual
Time taken to prepare the project (months)	21	33
First Bank mission (identification)	10/20/97	10/20/97
Appraisal mission departure	09/15/98	09/15/98
Negotiations	07/20/99	07/12/2000
Planned Date of Effectiveness	12/01/2000	

## Prepared by:

Ministry of Education

## Preparation assistance:

Japanese Grant (TF025498) of US\$450,000

## Bank staff who worked on the project included:

Name	Speciality
Carlos Rojas	Sr. Education Specialist, TTL
Maria Elena Anderson	Consultant, Implementation Specialist
Marta Arango	Consultant, Initial/Preschool Education
Angela Demas	Operations Analyst
Henry Forero	Consultant, MIS Specialist
Chris Geiragat	Consultant, Economist
Maria Lucy Giraldo	Procurement Specialist
Daria Goldstein	Legal Counsel
Juan Martinez	Sr. Social Scientist
Natalia Moncada	Language Program Assistant
Reynaldo Pastor	Sr. Legal Counsel
Michael Potashnik	Peer Reviewer, Sr. Advisor
Alexandria Valerio	Consultant, Economist
Morag Van Praag	Sr. Disbursement Officer
Manuel Vera	Consultant, Education Specialist
Manuel Vargas	Financial Management Officer
Myriam Waiser	Sr. Education Specialist
Alberto Zuniga	Consultant, Architect

## Annex 8: Documents in the Project File\* PANAMA: PA/BASIC EDU II

### A. Project Implementation Plan

- 1. MIEDUC, mayo 1998. Proyecto de Educación Básica II. Componente I. Calidad Educativa.
- 2. MIEDUC, mayo 1998. Rehabilitación de la infraestructura escolar.
- 3. MIEDUC, mayo 1998. Dotación de Libros de Textos, guias para el docente y bibliotecas escolares para escuelas unigrados y de premedia de la Educación Básica General.
- 4. MIEDUC, mayo 1998. Mejoramiento de la Educación Básica, Educación Premedia-Telebásica.
- 5. MIEDUC, mayo 1998. Componente "Expansion de la Educación Inicial no Formal".
- 6. MIEDUC, mayo 1998. Fortalecimiento Administrativo y Administración y Coordinación del Proyecto.

### B. Bank Staff Assessments

- 1. Country Assistance Strategy. October 1998.
- 2. Social Assessment. 1998. Panama. Proyecto de Educación Básica II. Evaluación Social.
- 3. Institutional Assessment. 1999.
- 4. Panama: Basic Education II Project *Financial Management Assessment Report*. The World Bank's Latin America and the Caribbean Region Financial Management Unit. March 23, 2000.

### C. Other

- 1. Rodriguez Santana, Martha. March 30, 1998. Evaluación Social de los Sub-componentes CEFACEI y Madre a Madre. Informe Final de Consultoría. Panama.
- 2. Scott, Kinnon. May 1998 (draft). Improving the Impact of Pre-Schools in Panama.
- 3. Panama: Informe sobre Pobreza. Resultados con la Línea de Pobreza Extrema y con la Línea de Pobreza General Baja.
- 4. Ministry of Education. March 1998. Componente de Educación Inicial. Proyecto de Mejoramiento de la Educación Básica. Preparado por: El Equipo de Educación Inicial, Ministerio de Educación, con el Apoyo de la Dirección de Programación, Panama y Marta Arango M., Consultora.
- 5. Poverty, Malnutrition & Inequality in Panama: Preliminary Note. Draft, December 20, 1997. World Bank.
- 6. Panama: Poverty Assessment. *Priorities and Strategies for Poverty Reduction*. The World Bank. Report No. 18801 PAN June 28, 1999.

\*Including electronic files

## Annex 9: Statement of Loans and Credits PANAMA: PA/BASIC EDU II

					Original Amo	ount in US\$	Millions	-	between e nd actual pursement	•
Project ID	FY	Borrower	Purpose		IBRD	IDA	Cancel.	Undisb.	Orig	Frm Rev'd
P007837	1997	Panama	PA - FES		28.00	0.00	0.00	20.88	14.89	0.00
P007832	1996	Panama	PA/EDUCATION SECTOR		35.00	0.00	0.00	6.98	1.58	0.00
P040179	1999	Panama	PA/HELATH PILOT		4.30	0.00	0.00	3.84	3.84	0.00
P007844	1994	Panama	ROADS REHABILITATION		60.00	0.00	0.00	11.64	11.64	0.00
P007847	1997	Panama	RURAL POV & NAT RES		22.50	0.00	0.00	15.03	7.63	-1.79
P051124	1998	Panama	UTILITIES RESTRUC TA		12.70	0.00	0.00	6.89	4.76	0.00
				Total:	162.50	0.00	0.0	0 65.2	6 44.	34 -1.7

## PANAMA STATEMENT OF IFC's Held and Disbursed Portfolio

### In Millions US Dollars

			Comm	itted			Disbu	sed	
			IFC			· · · · · · · · · · · · · · · · · · ·	IFC		
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1999/00	BANISTMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997/00	Banco General S.	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	Continental-PAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	ICA Panama	20.00	0.00	15.00	35.00	20.00	0.00	15.00	35.00
1995/00	Manzanillo	15.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00
1999	PCRC	15.00	5.00	0.00	30.00	6.33	5.00	0.00	12.67
1999	Suinternacional	0.00	5.00	0.00	0.00	0.00	2.50	0.00	0.00
	Total Portfolio:	75.00	10.00	15.00	65.00	41.33	7.50	15.00	47.67

		Approvals Pending Commitment						
FY Approval	Company	Loan	Equity	Quasi Pa	artic			
2000	AES Panama	45000.00	0.00	0.00 170000	0.00			
1999	Suinternacional	20000.00	0.00	0.00 40000	40000.00			
	Total Pending Commitment:	65000.00	0.00	0.00 210000	0.00			

## Annex 10: Country at a Glance PANAMA: PA/BASIC EDU II

				Latin	Upper-	:.	
POVERTY and SOCIAL				America	middle-		Development diamond*
1998			Panama	& Carib.	income		
Population, mid-year (millions)			2.8	502	588		
GNP per capita (Atlas method, US\$)			3,080	3,940	4,860		Life expectancy
GNP (Atlas method, US\$ billions)			8.5	1,978	2,862	· · ·	
				1,970	2,002		Ť
Average annual growth, 1992-98							
Population (%)			1.7	1,6	1.4		
Labor force (%)			3.0	2.3	2.0	21	GNP Gross
Most recent estimate (latest year a	allable dA	00 001					per primar
most localit astimata (istast Aast a	Vallabie, 15	37-201					capita 🔪 🖊 enrollmer
Poverty (% of population below nation	nal poverty i	line)	37			· · ·	Y
Urban population (% of total population	on)		57	75	77		
Life expectancy at birth (years)			74	70	70		$\perp$
Infant mortality (per 1,000 live births)			21	32	27		
Child mainutrition (% of children unde	er 5)		6	8			Access to safe water
Access to safe water (% of population	r) .		84	75	79		
Illiteracy (% of population age 15+)			9	13	11		
Gross primary enrollment (% of scho	di-age popu	(látion)	104	113	108		Panama
Male			1.1	ar e d'Éu	-4 <u>177</u> 5		
Female						1	
KEY ECONOMIC RATIOS and LON	G-TERM TI	RENDS					
		1978	1988	1997	1998	1	Economic ratios*
GDP (US\$ billions)		2.5	4.9	8.7	9.1		Economic ratios
Gross domestic investment/GDP			7.5	31.1	32.8		
Exports of goods and services/GDP			40.6	39.5	33.8		Trade
Gross domestic savings/GDP			23.6	27.2	23.5	1.1.1	
Gross national savings/GDP			23.8	24.2	19.2		Ň
						ст I	
Current account balance/GDP		· · · · · · · · · · · · · · · · · · ·		-6.8	-13.6		Domestic
Interest payments/GDP		5.0	0.3	3.5	3.7		Savings Investmen
Total debt/GDP		93.9	124.4	73.2	73.2	1	Savings
Total debt service/exports			en e	32.6	15.5		Ĩ
Present value of debt/GDP				74.2	73.3	11.1	Ť
Present value of debt/exports			an ta an antara. 1910 - Star	131.9	139.1		
			· · · · · · · · · · · · · · · · · · ·		ara Arana ara		Indebtedness
		1988-98	1997	1998	1998-02		
	1978-88						
						1 1	
GDP	1.9	5.0	4.5	4.1			Panama
(average annual growth) GDP GNP per capita			4.5 1.8	4.1 0.8	4.1 2.7 5.0		Panama 

#### STRUCTURE of the ECONOMY

STRUCTURE of the ECONOMY					
	1978	1988	1997	1998	Growth of investment and GDP (%)
(% of GDP)					
Agriculture		9.3	7.0	7.1	60 T
Industry		16.4	17.0	16.7	40
Manufacturing		9.3	8.7	8.2	20 -
Services		74.3	76.0	76.2	
Private consumption		55.5	56.6	60.0	93 94 95 96 97 98
General government consumption		20.9	16.2	16.5	GDI GDP
Imports of goods and services		24.5	43.4	43.1	GDI
	1978-88	1988-98	1997	1998	
(average annual growth)					Growth of exports and imports (%)
Agriculture	3.0	2.1	0.4	3.6	<sup>20</sup> T
Industry	-0.3	6.9	5.1	1.6	
Manufacturing	1.1	5.4	7.0	3.1	
Services	1.2	4.9	4.8	4.8	
Private consumption	2.2	4.3	11.0	11.5	-10 97 95 96 97 98
General government consumption	3.6	1.6	7.0	4.5	
Gross domestic investment	-9.7	22.7	1.1	11.9	-20 ⊥
Imports of goods and services	-2.8	7.0	15.9	8.4	Exports Imports
Gross national product	2.0	4.9	3.5	2.5	

Note: 1998 data are preliminary estimates.

\* The diamonds show four key indicators in the country (in **bold**) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE					
	1978	1988	1997	1998	Inflation (%)
Domestic prices					6
% change)					
Consumer prices		0.6	1.2	0.6	4 +
mplicit GDP deflator	8.0	-0.2	1.7	1.4	
Government finance					
(% of GDP, includes current grants)					
Current revenue			19.3	19.3	93 94 95 96 97 9
Current budget balance			2.2	-0.4	GDP deflator CPI
Overall surplus/deficit			0.0	-5.0	
TRADE					
(US\$ millions)	1978	1988	1997	1998	Export and import levels (US\$ mill.)
Total exports (fob)			1,777	1,393	4,000 T
Bananas			180	139	4,000 -
Sugar			96	138	3,000 -
Manufactures			1,276	886	
Total imports (cif)			2,992	3,320	2,000 -
Food			270	300	
Fuel and energy			262	185	
Capital goods			763	847	
			97	80	92 93 94 95 96 97 98
Export price index (1995=100) Import price index (1995=100)			97	89 92	a Exports 🖷 Imports
Terms of trade (1995=100)			100	92 96	
		••	100	50	
BALANCE of PAYMENTS.	1978	1988	1997	1998	·
(US\$ millions)	13/0	1900	1997	1330	Current account balance to GDP (%)
Exports of goods and services		•	3,421	3,090	5 T
Imports of goods and services			3,754	3,940	
Resource balance			-334	-850	
					94 94
		••	-419	-564	-5 +
Net current transfers	••		160	174	
Current account balance			-592	-1,240	-10 -
Financing items (net)			1,182	1,111	
Changes in net reserves			-589	129	-15 -
Memo:					
Reserves including gold (US\$ millions)		72	1,148	955	
Conversion rate (DEC, local/US\$)	1.0	1.0	1.0	1.0	
EXTERNAL DEBT and RESOURCE FLOWS					
	1978	1988	1997	1998	Composition of 1998 debt (US\$ mill.)
(US\$ millions) Total debt outstanding and disburged	2 240	8 066	6 330	6 600	
Total debt outstanding and disbursed	2,312	6,066 478	6,338	6,689 279	
IBRD IDA	107 0	4/8	209 0	2/9	G: 749 A: 279 C: 177
Total debt service	576	28	1,590	745	D; 701
IBRD	13	5	44	41	E; 337
IDA	0	0	0	0	E 37
Composition of net resource flows					
Official grants	8	6	70	50	
Official creditors	91	27	119	131	
Private creditors	458	23	411	253	
Foreign direct investment Portfolio equity	-3 0	-52 0	1,275 -1,036	1,186 478	F: 4,446
World Bank program					[ [
Commitments	12	0	51	78	A - IBRD E - Bilateral
Disbursements	12	4	53	91	B - IDA D - Other multilateral F - Private
	_	3	29	26	C - IMF G - Short-term
Principal repayments	4	3	23	20	
Net flows	8	1	25	65	

**Development Economics** 

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## MAP SECTION

