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IMPLEMENTATION COMPLETION REPORT
(PPFI-Q0180; TF-29684; IDA-30070)

ON A

CREDIT

IN THE AMOUNT OF SDR11.06 MILLION
(US\$14.6 MILLION EQUIVALENT)

TO THE

REPUBLIC OF ARMENIA

FOR AN

EDUCATION FINANCING AND MANAGEMENT REFORM PROJECT

June 11, 2003

CURRENCY EQUIVALENTS

(Exchange Rate Effective June 11, 2003)

Currency Unit = Armenian Dram (AMD)

AMD 1000.00 = US\$ 1.70

US\$ 1.00 = AMD 587

FISCAL YEAR

January 1 - December 31

ABBREVIATIONS AND ACRONYMS

AMD	Armenian Dram
ASIF	Armenian Social Investment Fund
CAS	Country Assistance Strategy
CEP	Center for Education Projects
CER	Center for Education Reform
DC	Direct Contracting
ECA	Europe and Central Asia Region
ECSHD	Europe and Central Asia Region, Human Development Sector Unit
EDI	Economic Development Institute
EMIS	Education Management Information System
FTE	Full-Time Equivalent
Hamaink	District Administrative Division of Armenia
HR	Human Resources
ICB	International Competitive Bidding
ICR	Implementation Completion Report
IS	International Shopping
Marz	Regional Administrative Division of Armenia
M&E	Monitoring and Evaluation
MED	Marz Education Department
MoES	Ministry of Education and Science
MoFE	Ministry of Finance and Economy
MTEF	Medium Term Expenditure Framework
MTR	Mid-Term Review
NCB	National Competitive Bidding
NS	National Shopping
PAS	Procurement Accredited Staff
PHRD	Policy and Human Resources Development Fund
PMU	Project Management Unit
PPF	Project Preparation Facility
PSR	Project Status Report
PTR	Pupil Teacher Ratio
QAG	Quality Assurance Group
SAC	Structural Adjustment Credit
SATAC	Structural Adjustment Technical Assistance Credit
SAR	Staff Appraisal Report
SIP	School Improvement Program
TIMSS	Trends in International Mathematics and Science Study
TRF	Textbook Revolving Foundation
UNICEF	United Nations Children's Fund

UNDP United Nations Development Program
WBI World Bank Institute

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ARMENIA
EDUCATION FINANCING AND MANAGEMENT REFORM PROJECT

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<i>Project ID:</i> P008281	<i>Project Name:</i> EDUCATION FINANCING AND MANAGEMENT REFORM PROJECT
<i>Team Leader:</i> Kari L. Hurt	<i>TL Unit:</i> ECSHD
<i>ICR Type:</i> Intensive Learning Model (ILM) of ICR	<i>Report Date:</i> June 11, 2003

1. Project Data

Name: EDUCATION FINANCING AND MANAGEMENT REFORM PROJECT
Country/Department: ARMENIA
Sector/subsector: General education sector (84%); Central government administration (8%); Sub-national government administration (8%)
Theme: Education for all (P); Administrative and civil service reform (S); Social analysis and monitoring (S); Civic engagement, participation and community driven development (S)

L/C/TF Number: PPFI-Q0180; TF-29684; IDA-30070
Region: Europe and Central Asia Region

KEY DATES

	<i>Original</i>	<i>Revised/Actual</i>
<i>PCD:</i> 02/08/1996	<i>Effective:</i> 05/30/1998	05/27/1998
<i>Appraisal:</i> 04/22/1997	<i>MTR:</i> 12/01/1999	05/09/2000
<i>Approval:</i> 11/20/1997	<i>Closing:</i> 06/30/2002	10/31/2002

Borrower/Implementing Agency: REPUBLIC OF ARMENIA/MINISTRY OF EDUCATION AND SCIENCE
Other Partners:

STAFF	Current	At Appraisal
<i>Vice President:</i>	Johannes F. Linn	Johannes F. Linn
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: HS
Sustainability: L
Institutional Development Impact: SU
Bank Performance: S
Borrower Performance: S

Quality at Entry: QAG (if available) ICR
HS
Project at Risk at Any Time: No

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

Context. One of Armenia's most valuable assets and a source of comparative advantage in the region has been its well-educated, entrepreneurial labor force. Armenians have traditionally placed high value on education and take pride in the standards achieved: at the time of independence in 1991, the country's adult literacy rate was close to 100 percent and almost 25 percent of the adult population were university graduates. The Soviet system offered free education to all age groups, including compulsory basic education (Grades 1-8), with free textbooks, while teachers received salaries comparable to the national average and enjoyed high social status. The education system was poorly matched, however, to the post-independence needs of a democratic nation and transition economy: centrally managed from Moscow, it was insular, expensive, inefficient, and based on Soviet values and labor requirements.

After independence, Armenia faced serious constraints even in sustaining universal general education, much less in transforming it to meet new needs. Education professionals and policy makers had been isolated from international developments and had little experience in planning, finance and management functions. At the same time, the country's extreme economic crisis, following the collapse of the Soviet Union, war with Azerbaijan and an international blockade, caused a drastic reduction in public funding for education, such that per student expenditure for general (primary-secondary) education fell from US\$600 equivalent in 1985 to about US\$30 in 1997, when the project was approved. Combined with the impact of the 1988 earthquake, this resulted in rapid deterioration of school infrastructure, negligible investment in teacher training, severely inadequate teacher compensation, lack of textbooks and teaching materials, and closure of schools in the winter. Many schools were operating in desperately poor conditions with inevitable decline in education quality from 1991 to 1997. The collapse of public funding also undermined demand, since parents had to bear higher costs through informal charges (for textbooks, school maintenance contributions, etc.), for poorer services. Despite the difficult circumstances, high enrollment rates in compulsory education grades 1-8 were largely sustained (preliminary information from the 2000 census confirms the findings of earlier household surveys, indicating that the fall of 20% in gross enrolments between 1990-1996 was mostly accounted for by the concurrent population decline). The lower demand was shown in absenteeism and in drop out in the higher grades, especially among the poorest and especially among males.

Continuing deterioration in the education sector posed multiple challenges with the need to prioritize these and address the most crucial ones through external funding. The government requested World Bank assistance for the sector in 1995. The project was prepared in a highly charged political environment: the government was blamed for the poor state of schools and the high costs and shortage of textbooks; curriculum revision and alleged corruption in textbook supply were major sources of controversy; policy changes and turnover of Ministers of Education were frequent. A sector social assessment was carried out and, following two years of policy dialogue and preparatory work, the Bank approved an investment project -- supported in part by a structural adjustment program -- to address the most immediate post-independence needs as identified by the government and other stakeholders: (i) providing textbooks, in a cost-effective and sustainable manner, to support continuation of the teaching and learning process; (ii) improving the financial condition of schools by setting up the incentives and mechanisms to allocate resources more efficiently, mobilize community support through transparent channels, and prioritize the general education budget; and (iii) building the institutional framework and capacity of the system to manage these processes.

Assessment of Project Objectives. The "strategic focus" of the project was to (i) facilitate improvements in the quality of general education by promoting school-level initiatives, by increasing opportunities and incentives for innovation throughout the system, and by improving the supply of textbooks and teaching materials, and (ii) help build the necessary institutional framework and capacity at all levels, for more efficient, equitable and sustainable operation of the basic education system.

Specifically, the objectives of the Textbook Component were to:

1. improve the quality of, and reduce the costs of, school textbooks and teachers' manuals;
2. ensure that all pupils have access to required textbooks for the core curriculum;
3. establish the basis for a sustainable, demand-driven system of financing school textbooks; and
4. achieve full cost recovery of textbooks within four years, except for the poorest groups.

Specifically, the objectives of the Capacity Building for Reform Management Component were to:

1. establish processes and incentives to increase efficiency in the allocation of resources within general education;
2. give schools the flexibility, and build their capacity, for effective management of their own resources;
3. promote community and parental participation in school funding and management; and
4. improve capacity for assessment and monitoring of school performance.

These objectives were directly relevant to the Bank's assistance strategy for Armenia and to the country's most urgent sector priorities. The project was an integral element in the new CAS (1997), which put human resources development at the core of proposed Bank support, with the objective of "ensuring social sustainability of the reform process and the alleviation of poverty through improvements in the quality of and access to basic health and education services." Project objectives were also consistent with recommendations of the poverty assessment (1996) that high priority be given to improving both the level and efficiency of public expenditure on education and to concentrate public resources on ensuring universally affordable, good quality, basic education. Priorities within the basic education sector were based on (i) a sector social assessment (1996) which identified textbook supply as the overwhelming constraint to effective schooling from the perspective of teachers, pupils and parents, and (ii) the government's reform priorities, which focused on decentralizing school management and improving efficiency. Institutional development at all levels was critical to ensuring sustainability.

At the time of project appraisal, the broad strategy for sector reform had been defined by the government but it left many important details unresolved and did not reflect a national consensus on what was needed. The capacity building objectives of the project, therefore, implied making substantial further progress in policy analysis and development and in building consensus for major structural, legal and regulatory changes. Support through the project to the policy agenda was reinforced by the concurrent structural adjustment program (SAC II, III and IV) which included prioritizing the general education budget, piloting and then expanding school decentralization and per-capita financing, and developing school rationalization plans.

Issues of curriculum development and teaching methods were tackled only indirectly in the project, due to the weakness of both demand and implementing capacity. The social assessment confirmed that parents, teachers and policy makers were reluctant to experiment with new pedagogical methods; in fact there was substantial general resistance to changing the traditional standards and teaching practices. Project objectives were already ambitious, considering the stress under which teachers were working and the

shortage of capacity for implementing systemic reform. There was no experience in the sector in implementing externally financed projects. In addition, the IDA allocation for the sector was small (initially set at only US\$5 million). The project, therefore, approached the qualitative changes tangentially by including activities for increasing the exposure of educators to international practices and thereby spurring interest in curriculum and pedagogical reforms. The objective was to lay the foundation for future changes in the core quality-related aspects of general education. The demand for such reforms is indeed emerging, and the government has requested assistance for a second project (under preparation), focused on education quality and relevance.

Another pressing sector need that was not addressed directly by the project was for the rehabilitation and re-construction of school buildings. Meeting this need in full on a sustainable basis would depend on first taking measures to consolidate under-utilized schools -- an issue which the project did address. In the meantime, some school rehabilitation was being carried out by a Bank-funded social fund project (ASIF I and II).

With hindsight, project objectives were appropriate for Armenia at the time of approval and maintained their relevance during the period of implementation. The objectives of providing basic education materials, introducing the means and incentives for schools themselves to manage their resources more effectively, and motivating community involvement in schools, would provide some relief to an education system that was undergoing a great deal of stress and decline in quality. At the same time, a longer-term perspective was introduced through the emphasis on cost-effectiveness and sustainability of the investments, and on development of an appropriate institutional framework and capacity to manage reform.

3.2 Revised Objective:

Not applicable.

3.3 Original Components:

Component I: Improve Textbook Production and Distribution (US\$16.9 million appraisal estimate; US\$16.5 million final costs)

From 1992, when budget constraints made continued public funding of textbooks impossible, these costs were transferred to parents. Successive schemes for textbook provision were ineffective, including the mechanism introduced by the government in 1995 requiring parental prepayment for textbook publication and distribution. The books were expensive, of poor physical quality and design, and often not available in time for the school year even for those able to pay. Publishing and distribution continued to be handled without any competitive process by the MoES which commissioned authors, edited and approved texts, contracted layout and printing to one of two state-owned textbook publishing companies, and delivery to a state-owned distribution firm. Private publishing capacity in the country was still very small; and the western function of textbook publishing companies as managers of the whole process -- from commissioning of authors through book delivery -- was unknown. The outcome, as indicated by the 1996 social assessment, was that only about 30% of pupils had access to the books required for the core curriculum, and that parents ranked the costs, quality and availability of textbooks as the issues having greatest impact on their children's education.

This component was designed to achieve its objectives by introducing an entirely new system of financing, publishing, procuring, and distributing school textbooks:

- Competitive procurement with appropriate specifications would improve the quality and reduce the costs of school textbooks, and the number of required titles would be reduced. Costs to parents would be further reduced because they would pay a rental fee instead of the full purchase price.
- The project would finance the purchase of books for all pupils (and teachers' guides for all teachers), covering core curriculum requirements in all grades over a four year period.
- Parents' rental payments would accumulate in a Textbook Revolving Foundation (TRF), with separate accounts for each school. After completion of the project, each school would use the funds in its account to order new books through the TRF which would consolidate school orders for central procurement and distribution.
- Rental fees were calculated so as to cover estimated book replacement costs after four years, with the exception of a 10% government contribution which would allow schools to waive or subsidize fees for the poorest pupils.
- The project would finance equipment and TA to establish a computerized system for consolidation of textbook orders from schools. Contracts with publishers would include delivery of the appropriate number of books to each provincial center, encouraging publishers to seek competitive distribution services. Counterpart funding would meet the costs of distribution from provincial centers to schools.
- Since the principles and procedures were new to all the key participants, the project included intensive training, TA and information on the new procurement process (for staff preparing publishers' guidelines, bid administrators and evaluators, authors and publishers) and on operation of the school-based revolving funds (for school directors, teachers and parents).

The design drew on lessons of experience in other countries and addressed the significant risks involved -- in particular, (i) that the fees collected from parents would prove insufficient for sustainability, and (ii) that local publishing capacity would be insufficient to produce real competition in the bidding process, while the Armenian market could be too small to interest enough international firms.

The risks were addressed primarily through broad stakeholder consultation in design of the component, substantial provision in the project for relevant training and public information, and through piloting prior to full scale implementation. Preparation of this component was the responsibility of a working group (composed of Ministry officials and representatives of pedagogical institutes, regional administration, and schools) set up by the Ministry of Education and supported by experienced technical consultants. Plans for the new system were presented and discussed at town-hall meetings held in about three quarters of the country's schools and detailed design was based on the resulting input from parents, teachers and school principals concerning willingness to pay and appropriate implementation mechanisms; in addition, any proposed changes in the system would be discussed with all the school principles during annual meetings. Discussions were also held with local publishers and printers. Highly detailed implementation plans were prepared and were piloted through an initial procurement under a PPF, supported also by grant funding from several donors. The pilot demonstrated strong school-level support for the scheme and stimulated local publishers to accelerate privatization in order to be eligible bidders under the project. As a result of experience, some small revisions were made in the course of implementation, but the basic design proved sound and well adapted to country conditions.

It was envisaged that textbooks would be based on the existing curriculum, with the exception of removing Soviet ideological biases and reflecting Armenian culture -- an interim curriculum that would allow time for policies on curriculum and methodology to be developed. At the time the project was prepared, curriculum reform was politically sensitive and was seen as a purely internal matter. In addition, it was felt that an attempt to coordinate major curriculum reform with the introduction of new systems for textbook financing and procurement would have been beyond the existing policy development and implementation capacity and that a sequenced approach would be needed: the establishment of a sustainable system for getting learning

materials into schools would facilitate future implementation of curriculum and pedagogical reforms. In the event, implementation of the textbook system, even without major curriculum reform, proved extremely demanding and stretched capacity to the limit, especially in coordinating the upstream efforts of different agents to meet the ultimate book delivery deadline for each new school year. The approach appears to have been justified and succeeded in getting badly-needed books into schools more quickly than would otherwise have been possible.

Design of the component did not include any provision -- in either timing or finance -- for piloting of new textbooks in schools or for related teacher training. It was thought that piloting would unduly increase the complexity of introducing the new procurement process and that neither piloting nor teacher training would be essential when books were to be based on the existing curriculum. This judgment made the implementation process more manageable, and did not lead to major problems. But some provision, at least for teacher training, would have been advisable. In some cases, the Ministry-appointed specialists responsible for writing curriculum guidelines were more innovative than had been envisaged, and some of the textbooks selected by the evaluation committees -- especially those by international publishers for foreign languages -- were based on methodology that was new to Armenian teachers. These innovations helped to stimulate the national debate on methodology and were welcomed by some teachers, but more support was needed in some cases than was provided in the teachers' guides.

Component II: Capacity Building for Reform Management (US\$4.4 million appraisal estimate; US\$2.8 final project costs)

This component combined top-down and bottom-up interventions to build capacity and facilitate progress on finance and management reforms in the sector. Serious inefficiencies in the existing system were attributed in large part to the rigid, centralized system of line-item budgeting, based on overly-generous norms for staffing and facilities, which denied schools the means or incentives to allocate resources more efficiently. At the same time, the low level of public funding forced schools to raise funds informally (against the existing law) from parents and other sources to meet even the most basic costs. The proposed reforms focused on rationalization of schools and staff, to increase the unsustainable low pupil-teacher ratio and consolidate under-utilized schools, and apply the resources to such priorities as teacher remuneration, teaching materials and in-service support, and maintenance of buildings and equipment. Measures to achieve this would include: (i) definition of revised norms for school staffing and facilities, and development of plans for school consolidation; (ii) starting in pilot schools, the allocation of public funds to schools on a per-pupil, lump sum basis (instead of a per-class/line-item basis), and decentralization of school management to elected school councils which would have flexibility in determining staffing and expenditure priorities as well as formal and transparent channels for mobilizing funds from extra-budgetary sources.

An inter-ministerial Working Group on Education and Finance Management Reform was charged with developing reform implementation plans and preparing this project component, with assistance from PHRD-funded consultants and, as for the textbook component, was to be maintained throughout project implementation. Armenian participation in an EDI (now WBI) education study tour to Australia and New Zealand during project preparation was instrumental in building understanding of the reform options and confidence in the proposed strategy.

Sub-components were designed to support the proposed reforms:

A. The Strategy for Finance and Management Reforms subcomponent would finance study tours, training, TA, subscriptions to international education organizations, public information activities, national

and local workshops, field surveys, and computer systems to support the Working Group with respect to:

- central policy development;
- public information and consultation;
- education management information system; and
- pilot rationalization process.

B. The Capacity Building for School Autonomy subcomponent would help finance the costs of refining, piloting and monitoring the proposed reforms to increase school autonomy, including training and capacity building at the school level, in particular for the principals and school council members of schools included in the pilot reform program.

C. The Pilot School Improvement Program would provide grants of up to US\$10,000 directly to qualifying schools for micro-projects (excluding civil works) identified at the school level, with the purpose of promoting local initiatives to improve school performance, and improving the capacity of school councils to mobilize and manage community contributions and other extra-budgetary resources. The program also funded training of staff and teachers in project planning and in monitoring of school performance. A mandatory 10% cash or in-kind community contribution was designed to enhance community involvement in school activities.

Implementation plans for the Capacity Building component could not be prepared in the same detail as for the textbook component because they depended on the nature and timing of policy development and consensus, and of related changes in the Education Law, which could not be predicted. The purpose was to finance activities on a flexible, demand-driven basis, responding to opportunities as they arose. Experience in implementation suggests that this strategy was well suited to project objectives and to country circumstances, but with some weaknesses with regard to the Marz and central levels in Subcomponent A. At the time of project preparation, the country's decentralization framework was in the process of transition from the "Rayon" district units of the Soviet regime to a larger "Marz" provincial deconcentrated level of government. Although the full implications for the education sector were not clear at that stage, the potential issues could have been addressed more systematically in project preparation: design of the component would have benefited from more attention to capacity building and incentives at the Marz level, where much of the work on planning school consolidation, and on support and monitoring of pilot schools, needed to be carried out. At the central level, the extent of government reluctance to use Credit proceeds for training, TA, or study tours for government staff was not anticipated in project design and resulted in curtailing expenditure under the first subcomponent. More attention from the outset to the constraints to demand for training, and to identifying sources of grant funding for this purpose, might have helped.

The basic approach to school rationalization taken under the project is still accepted by the government which proposes to step up progress under the follow-on project. With regard to the most politically difficult element -- consolidation of underutilized schools -- it had been envisaged that compensation and other costs of rationalization, once estimated on the basis of firm plans, would be funded through an adjustment credit. However, the matter of incentives should be given higher profile in project design. Experience of the first project suggests that more emphasis should be given now to (i) building in substantial incentives and compensation to ease social costs and political opposition; (ii) formally involving all relevant Ministries in planning and implementation (including labor, social welfare, public infrastructure, local government, finance, etc.) in order to spread ownership (and the political burden) and achieve the necessary coordination; and (iii) developing and implementing a communication strategy to build a general understanding of the need for and benefits from the reform.

Component III: Support for Project Implementation (US\$1.0 million original; US\$0.8 actual)

This component was designed to support the operations of the Project Management Unit (PMU). The PMU was earlier established under the PHRD and PPF and, therefore, already had a significant amount of experience in the administrative procedures of the Bank by the time the Credit was effective. The PMU was designed to support the Project Steering Committee, chaired by the Minister of Education and Science and including other relevant stakeholders. Specifically the PMU was to: (i) coordinate the implementation of project activities and ensure that resources were utilized in accordance with the project implementation plan and objectives; (ii) monitor project progress and impact and report to the Steering Committee and the Bank; (iii) manage procurement, contracting and disbursement; (iv) prepare regular reports; (v) maintain financial accounts and records; (vi) facilitate coordination with education sector donors and NGOs; (vii) ensure coordination of project stakeholders, including MoFE: and (viii) support the technical working groups established for each of the main project components.

Given, among other factors, the capacity constraints of the Ministry, their focus on critical issues facing the education sector, and the extremely low-level of civil servant remuneration, it was appropriate to establish and support a Project Management Unit. The main emphasis during project implementation was on increasing the capacity of the Ministry in the technical areas of education policy and management. Having to cope with the burden of coordinating the project activities, account for, procure and disburse the funds, would have been too onerous for the Ministry. It was appropriate to have a PMU with sufficient organization and technical skills to support the Ministry in project management while ensuring that the Ministry remained responsible for policy and technical decision making. This was achieved through the technical working groups and also close cooperation between the MoES and PMU.

3.4 Revised Components:

Not Applicable.

3.5 Quality at Entry:

The project was not subject to a review by the Quality Assurance Group; QAG did not exist at the time of the Project approval. The authors of this report rate Quality at Entry as highly satisfactory, based on the following strengths: (i) consistency of the objectives with the CAS, poverty assessment, and priorities for the education sector; (ii) incorporating the experience and lessons gained from successful pilots before and during project preparation; (iii) factoring stakeholder views into the definition of priorities and the details of project design; (iv) assessing risks realistically and including mitigating measures in the design; (v) ensuring implementation capacity of the various agencies and institutions involved; and (vi) effective selection and supervision of consultants and local working groups during preparation. The Staff Appraisal Report documented the project and its background clearly, and accurately assessed potential political and social developments that could contribute to unforeseen risks. Project objectives and design proved to be robust, in that no major restructuring was needed during the implementation period, and only minor readjustments were made in design details. The project was designed to build synergies with other IDA-financed projects and with the SAC. In helping to develop a strategic framework for the sector, project preparation also operated as a catalyst for support to the education sector from other donors, including UNDP and UNICEF.

With hindsight, more emphasis could have been given in project design to plans for monitoring and evaluation. Development of the monitoring plan was less participatory than other elements of the project (it was discussed and agreed at negotiations). Given the challenge of introducing a culture of results-oriented

M&E in a system that has traditionally conducted quality control through specifying inputs, the monitoring plan that was agreed at appraisal was already a step forward. It would have helped to develop ownership of the plan, if outcome-based monitoring had been more emphasized during supervision.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

The Achievement of the Project's Development Objectives is rated as highly satisfactory (refer to Annex 1, Outcome/Impact Indicators). Textbooks and teachers' manuals for the core curriculum were provided, at reduced costs, with improved quality and timeliness, to all pupils and teachers in the country. Through a revolving fund mechanism and creation of a foundation to handle the administration on behalf of schools, the project established a financially and institutionally sustainable system for on-going provision of textbooks, based on school demand. The sustainability of the Textbook Revolving Foundation as a whole is on secure footing and is much supported by the schools, teachers, parents and other education stakeholders. In introducing a transparent, competitive textbook procurement process, the project stimulated the development of local textbook publishing capacity and the market conditions for continuing competitive development of new and better textbooks. This capacity to get learning materials to schools in a timely, comprehensive and efficient manner will substantially facilitate ongoing efforts to improve education quality, including implementation of planned curriculum reforms.

The capacity of the Ministry of Education and Science staff and other key education policy makers has been greatly increased during the implementation through their exposure to international practices and knowledge and through their own experimentation and evaluation. The project contributed to major improvements in communication and coordination between the Ministries of Education and of Finance. Although enhanced, the capacity of the education policy makers, administrators and the schools in evaluating school performance is more limited than was originally planned, due in part to reluctance of the Government to commit Credit funds for study tours, training or technical assistance and due in part to the other pressing concerns during the implementation of the project. At the time of Project Completion, the Ministry had started to be involved in Armenia's first international educational assessment. The Ministry has also requested the Bank's support to develop a student and examination system as part of a follow-on investment.

The Government has endorsed the roll-out of the school-based management and per-pupil financing reforms from an initial pilot of 154 schools to the entire country. The necessary laws and policies have been put in place. The capacity is available for making the necessary corrective measures and managing the process, although it is noted that further investments would be necessary to complete the training of the new school management. The project supported the participation of more than 310 schools in a school improvement program which helped the schools evaluate their performance and design small projects to address their priorities. The feedback from the beneficiaries is that this program increased the participation of the parents and community in the school matters and increased the capacity of the schools to apply for and administer other grants. In addition to this more indirect benefit, the School Improvement Program provided a much-needed enhancement in the material base of the schools by establishing computer classes; supporting core subject teachings with audio visual equipment and material; providing science laboratory equipment; and setting up many art, sports, and craft classes.

The Ministry of Education and Science has a functional Education Management Information System that is supporting basic policy analysis and decision making. The information has been very useful for the Ministry in preparing its contributions to the Government's Poverty Reduction Strategy and Medium-Term

Expenditure Framework. The information has also been used by many donors, including the Bank, in preparing the Poverty Analysis and Public Expenditure Review.

The Government, with the MoES very much in the lead, has continued to support further development of rationalization efforts, but progress in this respect was relatively slow. Three specific rationalization plans -- including a few school consolidations and intra-school class mergers -- were developed and implemented during the project. While the numbers of teaching and non-teaching staff declined, the school-aged population in Armenia dropped more rapidly, therefore, negating some of the efficiency gains. The Government is committed to pursuing this further and has already adopted a new school charter which mandates a larger class size and which will go in effect in the 2003-2004 school year. The Government has also requested continued Bank support in this area in the project under preparation. The lessons learned from this earlier effort -- i.e. need to mitigate social consequences, need for full Government support and effort, and need to support school principals in making tough choices -- are being taken into consideration.

4.2 Outputs by components:

Component I: Improve Textbook Production and Distribution (Highly Satisfactory).

Performance of this component is rated highly satisfactory (refer to Annex 1, Output Indicators). The objective of this component was to improve the quality, availability and costs of the textbooks, especially costs for the most vulnerable families, and develop a sustainable textbook selection and financing mechanism. The objective has been fully achieved or exceeded through the following outputs.

Availability of textbooks (see Section 10, Table 1). About 113 subject textbooks and 47 teachers' manuals have been published and supplied to all the schools (about 1480) in the country. In absolute numbers the Project financed 6,124,400 textbooks and 134,000 teachers' guides. This constitutes all the textbooks required for the core curriculum except for one (one title was not awarded during the last textbook competition supported by the Project -- the textbook was financed by the TRF directly). All students in public and private schools (more than 538,000 children) have received textbooks and all teachers (more than 56,000) have received the teachers guides in a timely and cost-effective manner. In some cases the timely delivery of textbooks was hindered due to: several layers of approval required for the award of contracts; need for sufficient clarity and transparency of the evaluation process; publishing delays; and distribution delays from regional education departments to schools due to lack of government funds. These issues were already improved over the project lifetime (note that fewer titles were delivered late and the late delivery period was progressively shortened). The Textbook Revolving Foundation should be able to further improve the process due to the fact that the contracting process will not require the various Government approvals and the TRF will be able to organize the delivery of the textbooks directly to the schools. Overall, the component has succeeded in providing core curriculum textbooks to all children in the general education system and the problems encountered were minor considering the systemic changes introduced and the enormity of the task.

Quality of textbooks. The competitive environment initiated by the project has improved the quality of the textbooks, but largely in terms of the production quality. The evaluation, selection and approval process of the textbook considered the quality of the textbook in three respects: "quality of content" which mainly looked at whether the textbook appropriately reflected the curriculum and also looked at whether the material was age-appropriate and encouraged skills such as problem-solving; "quality of presentation" which encouraged appropriate illustrations; and "quality of production" which required a minimum technical standard established to ensure 4 year life of an in-use book. Only those books which were evaluated to meet the minimum technical requirements in all three areas were then considered for selection

based on the price of their books. The textbook selection process was refined over the years to find the appropriate balance between the technical evaluation of the quality of the textbook and the price (See Section 10, Table 2). The MoES, supported by the TRF, have adopted their textbook selection and evaluation process to be used for replacing the textbooks, based on the Bank procurement policy. It should be noted that quality improvements were made mainly in the design (colorful, illustrations) and production quality (durability, paper quality) of the books. While the technical specifications of the books were such that they were designed to last 4 years, experience is showing that they are capable of being used for 5 or 6 years.

The quality of the content of the book largely depends upon the evaluation criteria and the curriculum. The evaluation criteria in terms of the quality of content have been appropriately defined to encourage interactive teaching and learning methods. It is now recognized by the MoES that the selection had been dominated by academic elite with insufficient participation of teachers more aware of the appropriateness of material for each age-level. This issue is even more critical when it comes to the development of the Armenian curriculum. The curriculum for each subject and grade was updated prior to the publishing of the new textbooks, but support in developing the curriculum was not an activity directly supported by the project due to the lack of stakeholder interest in reforming the curriculum as mentioned earlier. The curriculum was updated to remove the remainder of the Soviet ideology; to increase the focus on Armenian history, culture and language; and to add subjects such as economics and information technology to the core subject requirements. Based on the opinions of local experts, the effect on the quality of the content of the textbooks is mixed. In some cases, the new curriculum and the evaluation criteria, enhanced the textbook content (especially true in new subjects and foreign languages). When teachers are surveyed about their preference to re-order the textbooks or to go through a new selection, a large majority prefers to re-order the textbooks and they offer comments for the new edition, attesting to their general satisfaction. In several cases, however, the updated curriculum -- prepared in large part by local professors -- was itself even more academic than that used previously. Additionally, some subjects had reduced time allocation in the teaching schedule, yet required the same or more material to be taught. While the new textbooks were responsive to the curriculum, the changes in the curriculum itself led to textbooks more difficult to use for specific age groups in certain subjects. There is now recognition in the education system that the curriculum is overloaded and generally needs to be improved, especially to include the attainment of cross-cutting skills. Reform of the curriculum is proposed as one of the central objectives of the second education project which is currently being prepared. At the time of preparing this report, the MoES had established a national curriculum working group to begin developing the framework and approach to a new curriculum. The Ministry took steps specifically to include teachers active in the general education system in the national working group in order to address the previously mentioned concerns.

Affordability of textbooks. In terms of costs, the project succeeded in substantial cost savings for the parents. For example, the average price of a textbook before the project (1996) was \$8-\$10. As a result of the project intervention the parents paid an average rental fee of about \$0.65 per book (see Section 10, Table 3). The number of books required for each child is between 4 (in lower grades) and 14 (middle grades) and many of the poorer families are likely to have two or more children in the household. Given that at the time of Project appraisal only 30% of pupils had access to all of the required core curriculum textbooks and that cost and availability of textbooks were a primary concern of parents, the ability of the project to provide all of the core textbooks to all Armenian students at an affordable cost is a major achievement.

Sustainability of textbook financing through the Textbook Revolving Foundation (TRF). As noted above, the textbooks were rented to students at a quarter of their estimated replacement cost to recover full cost in four years. To date, the rate of contribution for each marz is between 60% and 90% (72% average for the

country). Looking at individual school accounts 94% of schools have achieved a collection rate greater than 80%; 3% between 60-80%; and 3% of schools are boarding schools, which receive textbooks free of charge and are exempt from the rental system. These collection rates take into account all books delivered to the schools which include a planned overstock of books (to take into account lost or damaged books), books provided free of charge to the teachers, and books that are unused after one or two years due to decreasing number of students/grade in Armenia. Taking into account only those books provided to all the children, the rental return rate is on average 80%. Given the economic conditions in Armenia, this collection rate is excellent. The rate excludes the final Government contribution and the interest earned on the funds accumulated thus far. At the time of finalizing this report, the Government had cleared all its arrears in counterpart funding to the Textbook Revolving Fund (last payment in June 2003 in the amount of about \$470,000 equivalent). When these funds are included in the school accounts, the collection rate for each marz will increase by a further 10%. As noted above, durability of the textbooks proved to be better than expected, further enhancing the financial viability of the TRF. Books that were planned to be used for about 4 years are shown to be able to last 5 or 6 years. The legal charter and regulations for the TRF are such that they ensure that the funds can only be used for the intended purposes for replacing textbooks and that the funds for any individual school can only be used with the school's authorization so as to avoid the misuse of the accumulated funds. The TRF does require a certain amount of administrative costs to maintain this system. The approved regulations of the TRF allow the TRF to finance its operating costs as a small percent (1.5% of annual rate for all USD dominated investments and 5% of annual rate for all AMD denominated investments) of the interest earned by the deposited funds. The final contribution of the Government to the Textbook Revolving Fund ensures that there will be sufficient funds to secure the operating expenses of the TRF for the foreseeable future. As of June 2003, the total amount accumulated in the TRF is about US\$8.1 million.

Assistance to the most vulnerable families. The schools provided at least 10% of the students with free-of-charge books or a greater number with a reduced rental fee. The teachers, along with the parental committees, were responsible for identifying the most vulnerable students. Based on the feedback and discussions with stakeholders, it appears that the decision-making process at the school level was effective in allocating subsidies to the most children. Originally, it was planned to try to target more of the needy by establishing a poverty coefficient for each region or community and adjusting the percent of free-of-charge books accordingly. Based on the discussions with the stakeholders at the time, however, they felt that it would not be possible to establish such a system that would be satisfactory to all. Given the economic conditions throughout the country, it was felt likely that at least 10% of children in all schools would be considered vulnerable. The feedback provided during the stakeholders conference was that the provision of free-of-charge books to the most needy children should continue and the school-based method of determining the distribution of these books did not need revision. The complete contribution of the Government to cover this subsidy for the most vulnerable families will ensure that this policy can be maintained in the future.

The central Government contribution was also intended to finance the distribution of the textbooks from the Marz centers to the schools. This contribution was initially provided late and then not at all. This was a difficult issue given that the distribution of the textbooks to the schools is a very time-sensitive activity. The dependence on central-Government funding for the distribution proved to be a weakness of the original component design. Fortunately, local ownership and organization proved strong enough to survive this; marz staff, school principals and community members went to great personal lengths to organize the distribution. It has now been decided that rental fees will be set at a level to cover these final distribution costs.

Development of local authorship, selection and publishing capacity. A national textbook publishing

industry has emerged as a result of the project. Local authorship capacity has also improved considerably and Armenian specialists are researching and writing textbooks in Armenian history, culture, language and literature as well as some science subjects. Due to the competitive bidding process introduced by the project, the state monopoly on textbook publishing was eliminated and replaced by a market-oriented, open publishing mechanism. At project initiation there were only two Armenian publishers capable of supplying textbooks. Currently (2002), there are about fourteen local private publishing companies with the capacity, skills and interest for developing textbooks (See Section 10, Table 4). The rise in the participation of local firms in the bids for textbooks has had a valuable impact on the quality of local production.

Component II: Capacity Building for Reform Management (Satisfactory).

Performance of this component is rated as satisfactory (refer to Annex 1, Output Indicators). The objective of this component was to help build the institutional framework at the central, local and school level for efficient and sustainable implementation of the reforms in the general education system. The objective was achieved through the outputs described below.

Central policy development. The project provided technical assistance for developing the detailed policies and in refining these policies on the basis of experience gained from pilots. The project was successful in building the capacity of the MoES and MoFE to establish a legal and regulatory framework for the autonomous schools; set up norms and standards for the per-pupil formula; develop reporting and accounting needs for the new framework; and to promote pilot initiatives. The component also supported continuous consultation and consensus building activities to facilitate the incorporation of stakeholders' views into the core policies. This aspect of the project was particularly successful since there was continuous information dissemination and two way consultation through the mass media, workshops, surveys and professional dialogue.

An important element of the component was to increase the exposure of policy makers and implementers to global educational experiences, particularly developing the capacity of the central policy makers to assessment school and student performance. The Project partially financed the cost of a study tour to the Netherlands, Scotland, and Sweden. This study tour was successful in acquainting several of the key policy makers with the issues concerning curriculum, assessment and examination, school inspection, finance and governance. The lessons learned from the study tour were reported to stakeholders at the Project Mid-Term Review Conference. Many more and more in-depth learning opportunities were originally planned. However, the Government adopted a policy to limit the financing of international study tours and training. Therefore, the funds for developing the capacity of the central ministry and other key education authorities were under-utilized and reallocated to other purposes. As a result, the MoES has less capacity at present than was originally planned to develop and implement a new reform strategy aimed at improving the quality of the education system.

School autonomy. Under this subcomponent, pilot schools were granted a autonomous legal status according to the new School Charter and received a budget for all costs (except major capital rehabilitation), based on the number of pupils in the school, in a lump-sum; certain exceptions to the per-pupil allocation were made for small, remote border schools who are considered of strategic importance. The decentralized schools formed governing boards or councils comprising parents, teachers and marz and/or community representatives. The project financed substantial training to help the school directors and board members to carry out their new responsibilities in terms of efficient use of funds and sound management decisions. A concurrent technical assistance credit supporting the structural adjustment program provided training of 154 school accountants. Currently about 625 schools (or 40% of all schools)

are under the program (See Section 10, Table 5). The Government has adopted the decision to transfer all schools to the new financing and management arrangements by 2005.

A qualitative assessment of the pilot school decentralization program was conducted in 2001 to guide decisions on further expansion of the program. The assessment appeared consistent with the feedback that the MoES was receiving from the schools and that which the Bank saw during its supervision visits. The findings indicated that the reforms had a positive impact on the schools in terms of having the flexibility to find some small budgetary savings and to increase community involvement. Small budgetary savings would be used for such purposes as making an extra month salary payment to the teaching staff or to pay a bonus to the better performing teachers. The savings or support mobilized from the community would be used for making minor school repairs. The assessment study proposed a set of twenty four recommendations for the improvement and refinement of the pilot. The recommendations included a range of topics: refresher training for the board members; adjusting the per pupil funding formula based on the price of commodities; streamlining the fund flow mechanism; reviewing the roles and responsibilities of the school boards and directors and their relationship with the Marz Education Department (MED) and other marz level officials; and improving the reporting mechanism of boards to teachers, parents and community and also to the MED. Some of these recommendations have been considered by the government. For example, Marz-level officials are being included in the school management training. During the assessment, many schools outside the program demonstrated a willingness to participate; and no schools currently in the reform process expressed a desire to revert to the previous system. There were and are a considerable number of comments as to how the system is implemented. Yet, there appears to be full acceptance of the principles of the reform. The success of the program is, in part, the result of the intensive public information efforts and stakeholder consultations undertaken by the MoES and the guidance and supervision provided by the PMU.

The relative success of the pilot decentralization program was in spite of the financial constraints faced by many schools due to delays in the receipt of allocated funds in the first years of implementation. Delays occurred mainly because 1998-1999 were particularly difficult years for the Armenian budget and the lump sum payments to schools were not considered as a "protected line-item", as were salaries and pensions. Bottlenecks particularly occurred at the marz treasury level, where the authorities exercised undue restrictions on fund utilization owing either to a lack of understanding or simply a lack of funds. Fewer of these problems occurred in the marz where all of the schools are being financed through the new funding formula mechanism. It is reasonable to believe that there will be fewer problems at the Marz level as the reform is expanded to all schools. In the final project beneficiary assessment, this was not raised as a significant issue indicating that the problem was already resolving itself.

In the first year of implementation, two different models were piloted: one transferred responsibility for schools (supervision, ownership of property) to newly elected local governments at the community level ("hamainks"); the other retained authority at the Marz (deconcentrated, regional administration level). In both cases, basic financing of the school was provided through the central budget and, in both cases, local hamainks could allocate part of their local-level budget to the school although it is envisaged that they would have more responsibility to do so when they were directly responsible for the school property and supervision. In a few of the hamaink-managed schools, influential board members and local politicians abused their power, especially in the selection and appointment of the school director. In response to local complaints, the government revised the school autonomy regulations in December 2000, indicating that principals may only be removed based on poor performance. Given the complexity of the problem and the social and political undercurrents, the Ministry decided to discontinue the expansion of the hamaink-managed schools and to extend the reform only with the marz-level supervision model. The Ministry staff interviewed confirmed that, although the decentralization of school supervision to elected

local governments was the correct route to follow for the long term, in the absence of a strong local government structure it may be premature to transfer schools to the hamainks. In hindsight, safeguards against the abuse of power by local authorities were needed prior to the piloting of hamaink-managed schools. Additionally, intensive training of the local government bodies was needed to prepare the communities to undertake the management of schools. However, this scope of training may have been beyond the means of this project alone. Improved links with other projects, such as the Social Investment Fund, may have also benefitted the community-managed schools. The current political environment in Armenia may mean that there will be a greater push for decentralization of schools to the local governments in which case these lessons should be taken into consideration. The very small size of most of the hamainks -- most village would have only one school -- makes this a difficult proposition and could potentially hinder further rationalization efforts.

School rationalization. School rationalization (both school mergers and within school optimization) to achieve efficiency in education resources use has been a central policy objective of the Government of Armenia. The project had as its objective to support the decision making and implementation process of school consolidation in at least two marzes. It ended up supporting the development of detailed plans and activities in three "educational zones", but this after an initial false start. In 1998, as part of the Structural Adjustment Program (SAC III), each marz was expected to compile detailed school level data and prepare a plan for consolidation within schools (classes, teaching workload, teaching and non-teaching staff) and between schools (school mergers). While the marzes complied with the instructions, the quality of most of the plans was very inadequate. The process was again supported by SAC IV (2000-2001), but this time the rationalization plans were tied to three educational zones (1 complete marz, and geographically contiguous parts of another marz and one district of Yerevan City) where the school financing and management reforms were also being implemented. The ability to plan the school budget and to retain any savings were seen as minimum necessary preconditions for rationalization to take place. Additionally, these three plans were prepared by working groups of local experts in active collaboration with school principals, thus ensuring a high level of ownership and commitment at the school level. The proposals included various strategies: a few school consolidations, merging classes, reducing the number of teachers and non-teaching staff. The final plans were adopted by the Government in 2001 and implemented at the beginning of the 2001-02 school year.

In evaluation of this process, the final plans were flawed based on a miscalculation of the expected student numbers. The plans were based on an estimated increase of 10% in the student population when, actually, the student population declined by 6%. The ability to evaluate the results of the plan are also hampered because the baseline Pupil-Teacher Ratio (PTR) data -- based on the full-time equivalent teaching load -- was not available for the rationalization zones. The results do seem to indicate a slight increase in average class size (the average for the three zones increased from 22.08 students/class to 23.25 students/class), despite the reduction in the student enrollment. At the same time, there was a slight increase in the average number of teachers per class and decrease in the average number of teachers per students (in each case teacher refers to a physical person and not teaching position). The average number of teachers per class increased from 2.0 to 2.2 and the pupil-teacher ratio (again, physical person and not position) decreased from 10.9:1 to 10.5:1. The aggregate number of teachers actually declined from 6528 to 6406. However, the results indicate what was seen by anecdotal evidence, that the schools kept as many teachers employed as possible, giving them even a few hours of teaching per week. In the country an average of 2-3 teachers work per full-time teaching position and in Yerevan this increases to 4-5 teachers per full-time position.

In general, the rationalization objective moved at a much slower pace than the other policy components of the project due to the political, social and technical difficulties in implementing school consolidation and rationalization. The reform schools were provided budgetary flexibility and it was expected that they

would start to make rational choices with the use of the scarce funding. Although there are several examples of teaching and non-teaching staff reductions, many schools did not choose to lay off staff due to the relatively small savings that could be achieved by any one school and the rather large social tension that would result in the community. Another reason why rationalization did not occur was that the pilot schools did not receive funds in a timely manner or, in some cases, they were not able to retain savings due to lack of budgetary resources to meet all salary and pension expenditures. As a result, the environment was not conducive during the project to make savings through optimizing staff.

The MoES supported by the Government plans to ensure that rationalization plans are developed and adopted for all marzes and schools in the country. It is expected that the follow-up Bank-supported Education project will continue to address this issue in depth through technical assistance, further incentives (in terms of positive benefits and required regulations), information sharing, awareness building and two-way dialogue, and building a stronger coalition of stakeholders in carrying through the process.

School Improvement Program (SIP). The SIP was designed to support the school autonomy process by channelling resources for school improvement directly to the schools. It was to promote local initiatives to improve school performance, help schools to mobilize additional resources, and formalize community contributions to their funding and management. Progress on this sub-component, which involved the school boards in the development and monitoring of micro-projects in 312 schools (when only 200 schools were originally planned), has been highly satisfactory. The 312 schools were selected on the basis of the soundness of their proposal, the level of community involvement, and its sustainability. It is estimated that about 165,000 students benefitted from the SIP microprojects or about 30% of the total general education student body in the country. Special attention was taken in comparing the proposals from similar schools (rural schools, village schools and remote village schools), so that not just the strongest and best schools in the country participated.

Through the course of the SIP 170 computer classes were established with 720 computers and other relevant equipment. About one-third of the classes have been connected to the internet, in partnership with other donor programs. Besides teaching computer literacy to the students and after-hours on a fee-basis to interested community members, the computers are being used to publish school newspapers, create teaching materials and make graphical works. About 300 schools have received audiovisual equipment, for the most part to support the teaching of different subjects such as history, sciences and languages. More than 80 schools have received laboratory equipment for the in-depth study of chemistry and physics. Almost 75 schools are implementing micro-projects supporting art classes, music classes or sports; and 60 schools are organizing pre-professional education in woodworking, carpet-making, and other crafts. Throughout the program, many teachers received training on various subjects such as languages, natural sciences and computer sciences.

The SIP has increased the level of school autonomy by ensuring that school management boards, the principals and administrative staff had responsibility for a tangible activity. School boards, principals and the administrative staff gained experience with the management of resources that it is somewhat theoretical under the reform process alone. Schools were required to establish their own bank accounts, manage and report on the use of the funds. The board members and school directors were specially trained on school-based planning, monitoring and evaluation. The SIP succeeded in empowering schools to make decisions regarding the use of resources and thus created a momentum for increased school autonomy. It also stimulated innovative ideas for improving teaching and learning and helped build project planning and monitoring capacity at the school and community level, although it should be noted that only limited capacity was built for monitoring actual school performance.

The SIP significantly increased community participation in the school by requiring a large level of parent and teacher participation in the development and implementation of the grant. The community was required to provide 10% of the total micro-project cost as an in-kind or cash contribution. There are many examples of SIP micro-projects that have spurred greater community or parental involvement in the schools than the 10% mandatory contribution. One out of three schools collected fees for extra-curricular activities, in excess of 10% of the grant amount, to ensure the sustainability of the program in their school. The major area of increased costs for schools was for internet access; discussions with a number of these schools indicate little planning for meeting these costs when donor support ends.

Development of an Education Management Information System (EMIS). The objective of this subcomponent was to facilitate information sharing between the marz and central level by establishing a computerized network with access to a database with school-level statistics to support the monitoring of inputs for the purposes of rationalization planning; and improving monitoring of school performance and educational outputs. The subcomponent has achieved this objective. An EMIS has been established which, based on a single annual school questionnaire, provides central and regional authorities analysis on, among other things, student mobility (trends were identified to plan allocation of physical and human resources); student achievement (graduation exam marks and olympiad achievement provide indicators of quality); quality of teaching staff (proportion of unqualified staff requiring in-service retraining); and teacher distribution by age, subject and qualification level. The EMIS has streamlined collection and provision of data for decision-makers and was instrumental in preparation of the new MTEF which projects substantial increases in the education budget. Data have been collected for three successive years (2000-2002) and published in the annual yearbook of the central statistical agency, while the MoES is preparing for publication and dissemination through the MoES website. Sustainability, however, is not yet assured. The EMIS is currently located in the PMU. The Bank and the MoES have reached agreement to transfer the management of the EMIS to the new Policy and Analytical Department of the Ministry. The Department is supposed to organize the process starting in 2004.

Component III: Support for Project Implementation (Highly Satisfactory)

Like most other project units in Armenia, the PMU is a legally established state organization subordinated to the line ministry (in this case MoES). The Minister of Education and Science is the Chairman of the PMU Supervisory Board which includes other members of the MoES management, the government administration, and the Ministry of Finance. The core services of the PMU have been similar to those of other project entities in the country while the Education PMU also included a relatively large unit which worked with each of the schools on developing and implementing the school improvement grants.

The PMU is considered to have been essential for achieving the project objectives. Besides the routine coordination and project management work, including the enormous task of managing introduction of the new textbook procurement procedures, the PMU also provided assistance to the MoES on project-related policies. This role was not ideal -- the government was at times overly dependent on the PMU -- but was crucial to maintaining continuity and momentum through the frequent changes in MoES leadership. The emphasis on sustainability in project design (and on the part of the Director of the PMU) helped to counter some of the potential negative impacts of placing project functions in a temporary unit dependent on external finance. Management of the textbook system has been transferred to a self-supporting organization, the Textbook Revolving Foundation, while the strengthened MoES, together with the Ministry of Finance and Economy, now have firm ownership and control of the finance and management reform program, independent of the project unit. Still, some issues remain to be secured under the follow-on project such as relocating the EMIS and the function of monitoring/evaluation of the reform from the PMU

to the Policy and Analytical Department of the Ministry. This has already been agreed and a timeline established for the transition.

Performance of the PMU was highly satisfactory in identifying and resolving emerging problems. The Unit was adequately staffed with competent personnel and special credit goes to the Project Director who provided guidance and leadership at all stages of implementation. The monitoring, follow-up and reporting were all done in a timely and satisfactory manner. Audits were conducted regularly and except for minor issues there were no anomalies reported. However, the frequency, length and scope of the audits from governmental controlling bodies created undue pressure and workload on the PMU staff.

Funds allocated for PMU staff training and study tours were not fully utilized due to the cumbersome approval process and unwillingness of the MoFE to approve overseas training. This aspect needs to be reviewed and streamlined for the implementation of the training component in the future project.

4.3 Net Present Value/Economic rate of return:

Not applicable. See Annex 3.

4.4 Financial rate of return:

Not applicable. See Annex 3.

4.5 Institutional development impact:

The project's institutional development impact is rated as substantial. The project had a significant impact in the education sector with the establishment of the Textbook Revolving Fund Foundation and with the establishment of the competitive, transparent procedures for textbook procurement and local, private publishing industry. The project also developed central capacity for policy, planning and management of the general education system through continuous policy dialogue, the development of the management information system, and to a more limited extent, training. The project also strengthened the institutional arrangements for implementing and overseeing decentralized school management. This included setting up governing councils for managing schools and capacity building at the marz and school level for monitoring and evaluating school performance. The government is in the process of expanding the program nationwide, thereby institutionalizing the new decentralized school management and financing system for general education. A substantial contribution of the project was to reinforce participatory approaches at the school level by enhancing the role of parents and community members in school management by forming school boards and stimulating dialogue, especially through the provision of school improvement grants.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

While Armenia economic growth has been strong, it was estimated at Project appraisal to be significantly better than what had materialized over the last several years. GDP growth and improve fiscal performance was in part affected by the 1998 financial crisis in Russia, Armenia's leading trading partner and work-place of a significant portion of Armenian population who send remittances back to their families. In general, the sub-region surrounding Armenia did not experience significant economic growth during most of the implementation period, including Turkey which experienced its own economic crisis. Armenia's border with two of its neighbors -- Azerbaijan and Turkey -- have remained closed during this period, also

affecting economic growth. The lower than expected GDP growth and the external fiscal crises, led to poor fiscal performance of the Armenian Government. This in turn led to lower expenditures on education and, particularly for 1998-1999, irregular flow of funds to the sector, including schools which were beginning to pilot the new school-based management and financial reforms.

5.2 Factors generally subject to government control:

Government. In general, the broad administrative and economic reforms pursued by the government created an atmosphere which facilitated the project's innovative decentralized initiatives. Conversely, in some cases the lack of consistency in government orders/regulations negatively affected the policy reforms as well as the project activities. For example, the Government decision to provide free textbooks to the primary grades (while at the same time failing to provide timely counterpart financing to the Textbook Revolving Fund for the most vulnerable children) undermined the textbook rental policy and also tied up scarce resources which could have been used for other sectoral priorities. In addition, the issuance of the government order that the schools could not have commercial bank accounts delayed the start-up of the School Improvement Projects and required minor restructuring of the implementation arrangements for the program. The order was later withdrawn. Overall, the government commitment to the reforms at the highest levels contributed to the success of the project, but the approach was not always entirely consistent.

Ministry of Finance and Economy. The Ministry of Finance and Economy was an active partner in the design and implementation of the reform as well as coordination body for the World Bank supported portfolio in Armenia and, of course, financier of the required counterpart funding. In general, the active participation of the MoFE in portfolio management was useful such as in advising on legislative changes affecting the juridical status of project units and ensuring that project units remain subordinated to the sector ministries. The onerous reporting requirements and frequent changes in the rules and procedures governing the project units was, however, a periodic cause for concern. While the counterpart funding to the Textbook Revolving Fund was not provided in accordance with the agreed schedule and not provided in-full prior to Project closure, the MoFE did provide complete financing prior to the finalization of this report indicating their commitment to the Textbook Revolving Fund system.

Auditing Bodies. As noted in the annual reviews of Country Portfolio Performance, there are in Armenia a number of different auditing bodies (the Control Chamber of the National Assembly, the Ministry of Finance and Economy, and tax authorities) who would repeatedly audit the performance of the project units. The labor-intensive audits would often be repeated, overlapping, and more inclined to check for procedural error rather than the effectiveness of the program. These audits caused the Project Unit, and to a lesser extent the MoES and the Bank, to spend a considerable amount of time and resources to be devoted to them rather than other substantive areas of the project and reform.

5.3 Factors generally subject to implementing agency control:

Ministry of Education and Science. A factor which impacted project implementation positively was the intense stakeholder involvement in the project design, preparation and implementation. Much of the credit for this goes to the MoES staff who ensured the participation of all key stakeholders through formal and informal meetings, workshops, media presentations and focus group discussions. Strong commitment and action within the Ministry in providing a regulatory and legal framework for autonomous schools through the School Charter and providing per pupil funding to these schools were key factors leading to the success of the school decentralization component. However, the lack of clarity in the roles and responsibilities of the central Ministerial, Marz Education Department staff and other marz officials, resulted in funding delays and an overall lack of cooperation and support from the marz level. This was due to the fact that the MoES did not assign specific functions and tasks to the MED staff with respect to the reform schools and the authority of the school councils was not clearly articulated. Finally, the management of the Ministry

changed during project implementation about five times. While many of the technical staff remained during the change in management, there were always period of slow implementation during the transitions.

Center for Education Projects (the Project Management Unit). Monitoring the progress of the project, following-up on key issues and guidance provided by the CEP to the MoES largely contributed to the achievement of the project outcomes. The frequent changes in the Minister, in some ways, added a degree of self reliance to the CEP and it acted as a crucial bridge of continuity during the periods of change. The fact that the CEP was seen as a useful organization to each of the subsequent ministerial administrations illustrates the effectiveness of the unit not only as a coordination bureau for the World Bank-supported project, but also as a technical resource to support the Ministry in planning and implementation reform programs. The CEP had consistent leadership and relatively stable technical team. There were more frequent changes in the project financial management and procurement positions, but these were managed well by the Director of the CEP.

5.4 Costs and financing:

There are two notable changes in the costs and financing structure of the project. The first issue concerns the significant re-allocation of credit funds from planned technical and training to procurement of additional textbooks. The technical assistance and training planned to develop the capacity of the central ministry was largely unutilized due to the political constraints of using credit resources for this kind of purpose. An absolute minimum amount of technical and training funds was retained, but much of what was originally planned was re-allocated to the procurement of additional core textbooks. Given the breadth of the core curriculum (which expanded somewhat during implementation with the addition of courses such as economics and law), there was a vast need in this area.

The other significant change in the financing structure is a result of an over-estimation of the parents contribution to the Textbook Revolving Fund in the original cost tables. The original cost tables estimated \$8.15 million in financing for new textbooks and \$8.09 million in the collection of rental fees. The amount estimated at the time of appraisal for collection of rental fees was over-estimated. The full collection of rental fees for a single book takes a period of at least four years. The majority of the books were published in the last two years and, therefore, only 25% or 50% of the price could be recovered in the current period. Additionally, it was planned to purchase an overstock of about 15% for teachers, school libraries, and replacement of lost books. Therefore, not all books purchased with the credit funds were planned to be rented. Because of the declining student numbers, there have been even fewer books rented than previously planned. The overall collection rate for textbooks distributed to schools is 72% on average though considering the textbooks actually delivered to the children and not in stock in libraries or with teachers, the collection rate is actually more than 90% on average. Therefore, the principle behind the parent contribution to the sustainable mechanism of textbook financing is maintained, while the aggregate numbers do not compare to the original over-estimation.

6. Sustainability

6.1 Rationale for sustainability rating:

The sustainability of the project is rated as likely due to the fact that the groundwork for the reform is well-founded, key institutional mechanisms are in place and national ownership is strong at all levels. Further effort is needed for potentially fragile organizations and systems, such as the school boards and the management information system. The MoES has requested the Bank's further support to shore up these organizations through a second education project currently under preparation.

The question of sustainability is addressed at the central, school and community levels. At the policy level, the project sustainability was assured by the bold legal and regulatory reforms undertaken by the government before and during project implementation. For example, the Charter for Schools and the shift to the per-pupil funding system ensured the success of the school decentralization pilot. The Education Law and five year General Education Program passed by the National Assembly in 1999 greatly enhanced public ownership and commitment to the reforms under the project. Although there were several changes in Ministerial leadership during the project preparation and implementation phases, the risk of political changes was reduced by placing the responsibility for formulating the reform strategy to local technical experts in working groups. At the Bank's request, these groups functioned during the life of the project to oversee implementation of the components. Nevertheless, some aspects of the reform process, e.g. optimization of schools (including within school reduction of staff and possible merger of schools), were resisted for fear of adverse public reaction and the negative social consequences. Consequently, activities in the project related to this activity moved more slowly relative to others. The Government and Ministry is still committed to progressing further with rationalization and has asked the Bank for support in this area in a follow-on education project. The Bank is currently in the process of working with the Government on deepening the involvement of other key Ministries (especially Ministry of Social Welfare) in this process.

At the marz and school level, the project focused on improving capacity to facilitate the implementation and monitoring of the reforms. The reforms at the school-level were firmly routed in the above mentioned changes in policies, laws and regulations. The training programs for school directors and board members, grounded in the new regulations, helped develop valuable skills at the school and community level. In the process, the understanding of the stakeholders about the benefits of the reforms was greatly enhanced. The public information sharing and consultation process needs to be continued for sustaining the positive outcomes.

The textbook component has amply demonstrated sustainability since all schools in the country have participated in contributing to the TRF. This resulted in a self-sustaining system of textbook production and distribution. In addition, the training and supervision provided to the publishers and bid evaluators ensured genuine competition, optimized costs and helped maintain quality. Armenia now has a private publishing industry which continue to develop, including the provision of other learning materials.

In general, the project ensured sustainability in the following ways: (i) focusing on institutional reforms and building capacity and commitment at all levels; (ii) using a phased approach where the reforms were piloted and gradually scaled up once ownership and demand were created among the implementers and users; and (iii) by ensuring synergy between the budgetary and institutional reforms proposed under the SACs and the project objectives and activities.

6.2 Transition arrangement to regular operations:

The transition from credit-supported textbooks to those ordered by the schools through their account managed by the Textbook Revolving Fund is already complete. Textbooks provided to the schools in September 2002 were ordered in this manner. The institutional arrangements for this are well established. The Textbook Revolving Fund has an operational budget financed from interest earned on the accumulated funds. It has operational procedures to follow, in order to ensure the efficient use of the school funds. A textbook approval policy has been adopted by the MoES to ensure that the policy behind the textbook selection is set. As part of its sectoral dialogue, the Bank should continue to monitor these policies and their implementation. The timely provision of the needed textbooks to the schools, procured in an efficient and transparent manner, and the collection rate for the rented textbooks will be the key benchmarks.

Extending the school-based management and financing reforms to all the schools in the country will continue to need Bank and/or other donor support. The Government has requested the Bank's continued support in this area (among others) with a follow-up investment operation. It is currently being prepared. In the meantime, the Government has secured an advance from this Credit from the Project Preparation Facility and is continuing to roll-out the school based reforms in 2003. The institutional basis, necessary laws and regulations are in place; these are also regularly reviewed and improved based on implementation experience. However, nationalizing the program will take a considerable amount of school-based capacity building and further evaluation of the distribution of responsibilities between the central government, regional and local authorities and the school management.

As indicated previously, the performance of the Project Unit has been extremely effective. It is key in the preparation of the new education project and is responsible for executing the preparation PHRD grant on behalf of the Ministry. Therefore, the Government requested that the Bank continue to support the operation of the Project Unit through the PPF. The Ministry is establishing a Policy and Analytical Department. The involvement of this Department in the monitoring, evaluation, and maintenance of the Education Management Information System is expected to be developed as part of the new education project. While a PMU is expected to be maintained for the purposes of coordination, fiduciary management, and report, the transfer of responsibility for the monitoring and evaluation to the Policy and Analytical Department will be a significant capacity building initiative for the Ministry of Education and Science.

7. Bank and Borrower Performance

Bank

7.1 Lending:

The project design reflected lessons of experience from other Bank-funded projects in transition countries. A stakeholder assessment was conducted during preparation – this provided valuable information regarding deteriorating education quality and the lack of textbooks. It also revealed the reluctance of parents and teachers to embark on any significant changes in curriculum and teaching methods. The process helped prioritize project activities as identified by the stakeholders. The Project team adequately designed the project to match the policy priorities and implementation capacity of the country. Project design was selective targeting critical issues of textbook supply and the need to mobilize additional resources to sustain the education the system. At the same time, it was not an emergency operation and focussed on building the institutional capacity of the system to ensure the sustainability of the Project benefits. As mentioned previously, the project preparation team could have built a more rigorous monitoring and evaluation framework into the project design, in consultation with the Borrower, that would have enhanced the MoES ownership of the evaluation process and the ability to analyze the project impact. The preparation budget for the project was limited (initially the project was combined with a health project that was being prepared at the same time) and the project team relied extensively on the technical assistance that was mobilized by the Government through the PHRD and PPF.

7.2 Supervision:

The Bank supervision was rigorous and the frequency as well as the team composition was appropriately balanced (See Annex 4). With regard to the textbook component, the Bank was especially effective in ensuring that: (i) all students received textbooks; (ii) local capacity for developing, evaluating and publishing textbooks was built in a healthy competitive environment; (iii) minimum quality of textbooks was maintained at an affordable cost; and (iv) institutional arrangements for the sustainability of the TRF were established. In terms of the pilot decentralization component, the Bank conducted evaluation studies

in 1999 and 2001 to assess the progress and provide suggestions for improvement, based on the lessons of experience. The positive results of the evaluation helped the government in its decision to expand the pilot nationwide. The Bank's management was consistently supportive in raising concerns with the Government on matters that put the achievement of the project's objectives at risk. This included following up on the outstanding Government contribution to the Textbook Revolving Foundation even after Project closure. These efforts resulted in the Government's clearance of its arrears to the TRF in full. Sufficient supervision resources were provided. As a weakness, the Bank supervision team should have identified gaps in the monitoring and evaluation of project impact earlier so as to either address the gaps or agree on alternative indicators.

There was close coordination between the SAC and the education teams to ensure that the reform agenda and budgetary issues were adequately addressed in the SAC conditionalities. The education team also drew upon the expertise of financial sector colleagues when there were questions concerning the appropriate location and investment strategy of the Textbook Revolving Fund; this cross-sector collaboration averted a major problem which could have destroyed the solvency of the TRF. The supervision team also ensured, through regular meetings, workshops, conferences and information sharing that other donors, NGOs and all stakeholders were informed of the project's activities and duplication of effort was avoided. In November 2001, a national education conference was held as part of the project's information dissemination initiative. The conference included special sessions for sharing project experiences and provided an opportunity to the stakeholders to exchange views on the future direction of the reform program.

7.3 Overall Bank performance:

Based on the above analysis, the overall Bank performance is rated as satisfactory.

Borrower

7.4 Preparation:

Borrower ownership and commitment remained strong throughout the project's implementation period. In 1995 the Government of Armenia requested Bank assistance in the general education sector and embarked on an intensive dialogue. The Bank provided international assistance for project preparation through a Japanese PHRD grant, who worked closely with local counterparts. Two working groups were established by the MoES to define and formulate the reform measures and implementation plans. The first group focused on the textbook component while the second had a broader mandate for preparing the overall reform strategy of education financing and management. Further, each Marz Education Department was made responsible for preparing regional school consolidation and monitoring plans. Quantitative and qualitative social assessments, organized by the Government, were conducted to incorporate the opinions and experience of various stakeholders and the findings were disseminated through a national workshop. A project preparation unit was established in the MoES under the PHRD and PPF to administer the preparation and pilot activities. The Unit was later expanded to meet the implementation needs.

7.5 Government implementation performance:

The government's commitment was further confirmed during implementation by its readiness to approve the Education Law (1999) which facilitated the reforms under the project. In addition, the project results and achievements formed the basis of the Ministry's State Program for Education Development (2001-2004). The MoES provided continuous supervision and monitoring to ensure the success of the project components.

Despite the positive strides taken by the government, the frequent changes in the MoES leadership, delays in counterpart funding, and sometimes conflicting approaches in implementing the school management and financial autonomy reform, undermined the government's consistency in supporting the reforms. There have been five education ministers during the project preparation and implementation period; however, the Ministry's commitment to the reforms at the technical level has remained. The Ministry of Finance and Economy has been very supportive, but this support has not always been exhibited by local officials in the Marz administrations and treasury branches.

The government was been delayed in meeting some of its counterpart funding obligations, but eventually cleared all arrears to the Textbook Revolving Foundation shortly before the finalization of this report. Since government money was originally earmarked for the delivery of textbooks from the marzes to the schools, the lack of funds resulted in a delay in textbook delivery. However, the problem was resolved by the local level government and school authorities who assumed the responsibility for distributing and collecting the books. These examples illustrate the Government's satisfactory performance during implementation.

7.6 Implementing Agency:

The performance of the PMU was highly satisfactory both in terms of identifying and resolving emerging problems as well as providing continuity despite the changes at the ministerial level. The Unit was adequately staffed with competent personnel and special credit goes to the Project Director who provided guidance and leadership at all stages of implementation. The monitoring, follow-up and reporting were all done in a timely and satisfactory manner.

Procurement: The undertaking of the textbook procurement process was quite an onerous task, given the complexity, the volume, the involvement of numerous evaluators, the competitive publishing market, and high-degree of Government, and often Parliament, involvement in the process. Through this, the textbook procurement was done with considerable skill. The lessons from the Armenian experience in textbook procurement directly contributed to the updated Bank policy on textbook selection. An independent procurement review of the Armenian education was conducted around the time of Project completion. The results of this review indicated that the knowledge, capacity, and organization of procurement by the Education PMU was one of the best in Armenia.

Financial Management: Independent audits were conducted regularly and except for minor issues there were no anomalies reported. Local auditing bodies also regularly audited the project. A significant amount of staff-time went into these audits and no major difficulties were found.

7.7 Overall Borrower performance:

Based on the above analysis, the overall Borrower performance is rated as satisfactory.

8. Lessons Learned

The project succeeded in making structural changes, and acted as a catalyst for comprehensive policy reforms in the education sector. It also yielded several lessons for future operations in the country and for operations elsewhere in the region.

The key lessons include:

- **Realistic evaluation of the institutional capacity for managing reforms and project activities and an appropriate project scope of the project, enhances the chances of success.** With a first time Borrower and in a country coping with a severe transition, it was appropriate to limit the project to only a couple of key interventions where success could be established and built upon.
- **A project can be designed such that it meets immediate needs, achieves institutional and sustainable development and facilitates other substantive reforms.** At the time the project was designed, the Armenian education system was deteriorating rapidly. The priorities of the policy makers and stakeholders were to address immediate problems of supply of textbooks and financial constraints. The project managed to address these issues without yielding to the possible option of addressing them in an institutionally or financially unsustainable manner. Additionally, while it was not an explicit objective of the project to improve the quality of education in Armenia, the project facilitated the discussion on quality by relieving the immediate pressures on the system and by including awareness raising and relevant capacity building activities; in hindsight, this design choice was an appropriate alternative in the given conditions. Now that the basic problem of access to textbooks has been resolved and confidence has been gained in introducing new approaches, education administrators are more ready to accept the need to improve the curriculum framework. In discussing the outcomes of the project and possible areas for future Bank support, Armenian educators are now more ready to discuss the need for a modern, coherent curriculum framework; investments in teacher training; and the assessment of learning. This would not have been possible in the environment in which the project was designed.
- **Project effectiveness is considerably enhanced when project concept and objectives are based on stakeholder consensus and Borrower priorities.** A particular strength of the project was that the objectives were selected and prioritized based on a stakeholder assessment conducted during the preparation phase and considerable direct discussion during preparation with beneficiary groups on what would work and what would not during the implementation of the textbook component. The components were consequently designed by national working groups in line with the Borrower's priorities and the perceived needs of the beneficiaries.
- **In supporting systemic reform, project impact and sustainability can be enhanced by exploiting synergies between investment and adjustment operations.** A particular strength of the project design was that the Structural Adjustment Program which was being supported concurrent to the implementation of the Project, required the necessary legal and regulatory changes as well as the crucial budgetary increases needed to support the project reforms. This enhanced the impact of the interventions made by the project. In addition, the sustainability of the project reforms was ensured by the structural and policy changes driven by the SAC conditionalities.
- **Monitoring and evaluation systems cannot always establish national-level targets at the time of project design; more attention needs to be applied in having a dynamic system, updated regularly with agreed intermediate and process benchmarks.** Specific targets and benchmarks for advancing school management and financial reform and rationalization efforts were left open during project design to allow the Armenian Government and education system to experiment and then decide how and when to expand upon them. As a result, the project achieved good results in transforming school management and financial reform into a national policy by the end of the implementation period. The results of the school rationalization efforts are more mixed, with the outcomes being only very moderate. At the same time, the need for rationalization is gaining wider acceptance amongst the education administrators. The project design -- being opportunistic in these areas -- did not have specific benchmarks and targets established for measuring success. As a result, it is difficult to establish whether the project achieved or exceeded the

plans in these areas.

- **Obstacles to the rationalization of schools and staffing should not be underestimated.** The project succeeded in removing disincentives to rationalization at the school-level, but had a smaller than expected impact on class size and staffing ratios. More emphasis should be given now to (i) building in substantial incentives and compensation to ease social costs and political opposition; (ii) formally involving all relevant Ministries in planning and implementation (including labor, social welfare, public infrastructure, local government, finance, etc.) in order to spread ownership (and the political burden) and achieve the necessary coordination; and (iii) developing and implementing a communication strategy to build a general understanding of the need for and benefits from the reform. The project design should have been more modest in its expectations with respect to rationalization and should have more clearly accounted for the rigidities of the curriculum which affects the teacher staffing needs, analyzed the incentives and constraints faced by school directors, and identified the winners and losers in the reforms.
- **School-based management and per-pupil funding reforms need to carefully ensure that the reporting and accountability framework of schools to the Government is not weakened.** The objectives of the school based management and per-pupil financing reforms were to allow the managers of those schools greater flexibility in determining the school budget in order to increase the incentives for efficient use of the resources, to allow for greater reflection of the budget to local needs, and to allow for additional resources (from the community or donors) to be included officially in the school budget. The school board was installed to ensure accountability of the school to the community for the use of the funds and to involve the community in solving the schools problems. This reform removes the school from direct input based financing which is automatically tracked and recorded by the treasury and administrative systems. Yet, it is still necessary to account for how the schools budget and use their resources in order to ensure against abuse and, even more importantly, to evaluate the effects of the reform. The new management and financing system, however, had the affect of deteriorating the information on the use of funds and, consequently, the ability of the Government to perform its oversight and evaluation roles. This problem is being addressed through changes in the reporting requirements to the treasury. Similar reforms in other countries in the region are being implemented and there is a parallel with the out-put based financing of the health sector. The need to ensure the reporting and accountability framework from the beginning should be taken into consideration.
- **Even with a relatively simple project design, significant supervision resources are needed to ensure continuous and consistent implementation of the reform.** The biggest challenge during supervision of the Project was to ensure a consistent adherence to the project objectives and principles, either in the procedure for the selection of textbooks, the protection of the school accounts, and the financial flow of funds to schools. Various interests get challenged in the process; different policy, legal and administrative reforms conflict; and different stakeholders do not always have the same level awareness, understanding or commitment to what is trying to be achieved. To the extent possible, these risks should be mitigated by the project design (i.e. ensuring the widest possible dissemination of information and training of key stakeholders). Additionally, sufficient resources need to be provided during supervision to monitor these issues, anticipate obstacles and act in a timely manner to help address problems before they arise.
- **Continuity and commitment of senior level Ministry and PMU staff during the project life are key to maximum project success.** During the four years of project life substantial continuity and support were provided by the PMU team and the senior level Ministry staff. This made it possible to maintain continuity and momentum through frequent changes of Minister.

9. Partner Comments

(a) Borrower/implementing agency:

The complete contribution from the Ministry of Education Science is included in Annex 10 of this report. In summary, the Ministry rated the accomplishments of key project components -- sustainable textbook provision, school-based management and per-pupil funding, the development of the Education Management Information System, and the School Improvement Program -- as very successful. The Ministry further indicates that the reforms supported "proved to be the right way to go in the difficult transition period for the Armenian economy." In terms of lessons learned while implementing this reform, the Ministry points to the need to ensure consistency between the reforms and various legislation and regulations; and the need to put more emphasis on information dissemination and awareness raising in order to increase the level of support and lessen the strengthen of vested interests. The Ministry considers the performance of the World Bank and the Government of Armenia as satisfactory during the preparation and the implementation period. Finally, the Ministry outlines those steps already taken and those to be taken to ensure the sustainability of the reform.

(b) Cofinanciers:

Not available.

(c) Other partners (NGOs/private sector):

Not applicable.

10. Additional Information

Table 1. Annual Provision of Textbooks Supported by the Project

Year	1997	1998	1999	2000	2001	Cumulative
No of Textbook Titles Published*	4-PPF 11-Credit* 7 - Other Donors**	14	32	29	27	124***
No. of Teachers Guide Titles Published	-	6	14	14	13	47
Percentage Schools Received Books	100%	100%	100%	100%	100%	100% or 1481 public and private schools
Percentage Students Received Books in Relevant Grades and Classes	100%	100%	100%	100%	100%	100% or more than 538,000 by beginning of 2001-2002 school year
Percentage of Teachers Received Guides in Relevant Grades and Classes	100%	100%	100%	100%	100%	100% or more than 40,000 by beginning of 2001-2002 school year
Timeliness of Delivery of Books to Schools	not available	4 publishers, 3- 9 weeks delay	3 publishers, 2-5 weeks delay	2 publishers, 2-6 weeks delay	2 publishers, 1-2 weeks delay	not applicable
Percentage of Most-Vulnerable Children Receiving Textbook Subsidy	At least 10%	At least 10%	At least 10%	At least 10%	At least 10%	About 11% in total

* Includes ABC book provided to all first grades free of charge.

** Seven titles in extra-curricular subjects were financed by UN Agencies (UNDP, Unicef, UNHCR), USAID, the Norwegian Refugee Council, and the Catholic Relief Services

*** Includes the extra-curricular titles financed by the other donors, the ABC book, and all titles required for core curriculum except for one (Informatics) which was financed by the Textbook Revolving Fund after the project closed.

Table 1 shows the number of textbooks and teacher guides produced; the coverage to students, including the most

vulnerable, in the relevant grades and subjects; and the increasing improvement in the timeliness of delivery.

Table 2. Annual Textbook Evaluation Criteria

	1998-1999 school year	1999-2001 school year	2000-2001 school year*	2001-2002 school year
Weight of Evaluation for:				
Quality of Content	35%	25%	25% and 80% min. threshold	25% and 80% min. threshold
Presentation	25%	15%	15% and 50% min. threshold	15% and 50% min. threshold
Price	40%	60%	60% only those passing threshold	60% only those passing threshold
Percent of Manuscript to be Presented:	20%	40%	60%	60%
One-Envelope or Two-Envelope Bidding	One-Envelope	One Envelope	One-envelope	Two-envelope

*Based on previous experience the bidding documents also had to clarify the ineligibility of Government employees to be authors, translators or other contributors to the offered textbooks.

Table 2 shows the annual attempt to modify the textbook evaluation criteria to ensure quality (see thresholds), ensure pressure on the price of the textbooks (see weight for price in criteria), ensure the quality of the review process (see percent of manuscript required and the number of envelopes for the technical and price proposals).

Table 3. Comparison of Textbook Costs to Parents before and after Project

Average Price of a Textbook Paid by Parents Before Project (1996)	Current Market Price of Textbook Published by the Project	Average Cost of a Textbook Published by the Project	Annual Rental Fees Paid for a Textbook Funded by the Project
\$8- \$10	\$2.20 - \$3.70	\$2.00	\$0.30 - \$0.65

Cost savings for parents as a result of the textbooks published under the project:

\$8 per book (before project) - \$0.65 per book (average rental fee for project funded textbook) = \$7.35 per textbook

Table 3 shows the impressive reduction in the burden of textbooks before the Project and the reduced price owed by parents per book due to the competitive bidding and rental scheme. Whereas before the project, only 30% of students had all required books; now all of the students have all of the required books.

Table 4. Annual Review of Private Sector Participation (Local and Foreign) in Publishing Textbooks

Year	1997	1998	1999	2000	2001
Number and Percentage of Local Companies Participating in Book Procurement	<i>Bidders:</i> 3 local publishers 100%	<i>Bidders:</i> 7 local publishers 3 foreign publishers 70%	<i>Bidders:</i> 10 local publishers 9 foreign publishers 52%	<i>Bidders:</i> 9 local publishers 3 foreign publishers 75%	<i>Bidders:</i> 9 local publishers 100%
Diversity of contracts awarded	<i>Winners:</i> 1 local publisher	<i>Winners:</i> 2 local publishers 2 foreign publishers	<i>Winners:</i> 6 local publishers 1 foreign publishers	<i>Winners:</i> 4 local publishers	<i>Winners:</i> 9 local publishers

Table 4 provides a year by year overview of the percentage of local publishers participating in the bids and also the diversity of the companies awarded contracts.

Table 5. Annual Expansion of the School-Based Management and Financing Reform

Year	1998	1999	2000	2001	2002
No. of Schools Included in the Reform Program	54*	100 (Total: 154)	50 (Total:204)	100 (Total: 304)	315 (Total 619)
Percent of Reform Schools in Armenia (using 1481 total schools)	3.6%	6.7% 10.4% total	3.4% 13.8% total	6.7% 20.5% total	21.3% 41.8% total
No. of Principals and	Preparation of Training	154	50	100	315

School Boards Trained/ Timeliness of Training	Modules and Training of Trainers	(November 1999)	(October 2000) Total: 204	(October 2001) Total: 304	(October 2002) Total: 619
No. of School Council Members Trained				Total: 1800	To be continued in September 2003

* In 1998, fifty-seven (later reduced to fifty-four) schools were transferred to the management of the community-level. It was only 1999 that the per-capita, lump sum funding mechanism was approved.

Table 5 provides data on the number of schools, principals and school board members included in the program each year and the timeliness of the training provided to the board members for effective school governance.

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
<p>1. Text Book Component:</p> <p>a. Annual evaluations by technical experts reveal improvements in the quality of new textbooks in comparison to currently used textbooks.</p> <p>b. Stakeholder assessment reveals increased satisfaction of teachers, pupils, parents concerning costs and quality of core textbooks.</p> <p>c. Schools identify socially vulnerable students and provide textbooks free of charge or with a subsidy in an equitable and effective manner.</p> <p>d. Sustainability ensured by % of schools that have accumulated sufficient funds in their revolving fund accounts to meet the full costs of replacement books by project completion (target at least 80%).</p> <p>e. The efficiency of the textbook ordering</p>	<p>The last PSR was consistent with the Actual/Latest Estimate (see next column).</p>	<p>Achieved. Annual evaluations by both international and local technical experts reveal improvements in the production quality of the project funded textbooks in comparison with the previous years. They meet all internationally accepted printing and binding standards for school textbooks and are designed to achieve a 4-year book life when used in schools. A survey of the textbooks that have been used for four years in schools suggests that many of the textbooks could achieve a 5 or 6-year book life. Presentationally, the content of the books have been improved with more illustrations, pictures and diagrams. The substantive content has been improved as it relates to more local content, less ideology, and more critical-thinking type methodology. However, feedback from local stakeholders also indicate that the books are too complex/not age-appropriate and are still based on an overloaded curriculum. While technically the books are better and stakeholders are generally satisfied (thus meeting objectives of the project), there is still much to be done in the area of the content of the curriculum and its reflection in the learning materials.</p> <p>Achieved. Surveys were carried out in 1999 and 2002. The textbook design and lay out was generally evaluated as good; the design complied with the content and was done with good taste and quality. The rental scheme allowed families to rent books instead of buying. The pupil selection from vulnerable, very needy families, for free books is generally evaluated as "totally fair".</p> <p>Achieved. The school completes its list of socially vulnerable students, which is agreed with the parents committee and the pedagogical board and approved by the school board (in the schools that are included in the reform project). The list will comprise at least 10% of the student body. Also, a school is allowed to increase its rental fee by a maximum of 10% to increase number of free books that can be offered to vulnerable children. Such a decision is made and recorded in writing by the joint agreement of the parents committee and the pedagogical board of the school.</p> <p>Exceeded. As of 2002, 94% have paid 80 % and more; 3% have paid 60%; and 3% of schools that are boarding are exempted from payments.</p> <p>Achieved. The textbook ordering process is</p>

process is improved in terms of the time that it takes between school submission and final consolidation of all orders at the central level.

2. Capacity Building Component

a. The budgets of autonomous, per-pupil funded schools are more efficient than school budgets funded according to traditional expenditure categories.

b. Evidence of efficiencies would be: reduction in the number of classes; increase in the pupil: teacher (FTE) ratio; increase in average teacher earnings; increase in funds available for maintenance and for teaching materials. By Project Completion, these should be evidenced in national averages.

c. Increase in awareness on part of marz and school officials and parents of the potential scope and benefits of more efficient allocation of resources, revealed in social assessments.

d. Changes in opinions and behavior of principals, teachers and parents concerning role of parents and community in school management as revealed in social assessment.

e. Majority of SIP projects achieve agreed performance benchmarks as reported in the individual project completion reports of the SIP schools and in a consolidated annual report prepared by the SIP unit.

based on school enrollments as collected in a single school questionnaire. Information is electronically communicated to the central EMIS and provided to the TRF.

Not Able to Evaluate Fully. Case study evidence (see consultant report of June 2001 and beneficiary assessment of September 2002) from the schools which have undergone the financing and management reform indicates school managers are making some efficiencies, by consolidating some classes and reducing nonteaching staff and using funds to make bonus payments to some or all teachers and increasing amounts paid for capital maintenance or learning materials. Evidence from the three educational zones for which rationalization plans were prepared showed some evidence of willingness to increase class size (23.25 students/class after implementation, compared with 22.08 before), but also evidence of increasing the number of part-time teachers (2.2 teachers/class, whereas 2.0 before). No comparison with non-pilot schools has been possible.

Not Able to Evaluate Fully. As noted above, there is some evidence of marginal increases in efficiency. However, this is not evidenced in national averages yet due to the relatively small number of schools that have been practicing in this capacity for any significant period of time; the regulations (especially related to the structure of the curriculum) not allowing for any major changes; the social constraints to reducing the number of teachers; and the inability of the information systems to collect information on financial indicators for pupil-financed schools.

Exceeded. Surveys carried out in 1999 and 2002. According to stakeholders viewpoints, new financial system promoted saving and efficient strategy in fund utilization; the school takes care of all its needs and manages the allocated funds independently; school autonomy increased; quality of education increased; new financing principles led to the sustainability in teachers salary payments and per capita funding.

Achieved. Surveys carried out in 1999 and 2002. Parents' and other community member's role has increased in schools. Due to the beneficiary participation in school management through the institution of school board, the awareness of participation in school related issues has increased; the parents, for example, have active participation in fund raising activities for schools.

Not Able to Evaluate Fully. Of the SIP plans submitted, 84% of those plans achieved a satisfactory rating in terms of the quality of the proposal. Consolidated information on the achievement of school benchmarks was not prepared by SIP. Performance

<p>f. EMIS used for policy analysis</p>		<p>benchmarks were, in large part, on physical progress and input and on making school activities available to a specific beneficiary target group. The implementation progress of SIPs were closely monitored and few were likely to have achieved less than anticipated. The impact of the SIP, in terms of increasing capacity of schools to evaluate school performance, is limited. According to stakeholder evaluations, the SIP was more successful on increasing community involvement in the school and building school capacity for applying for and administering grants.</p> <p>Achieved. Information from EMIS seen as very reliable. The information has been instrumental in preparing the Government's poverty reduction strategy paper and Medium Term Expenditure; the Bank's Poverty Update and Public Expenditure Review; and is regularly made available to other donors and stakeholders.</p>
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Output Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
<p>1. Textbook Component</p> <p>a. % of grade 1-10 pupils who have a personal copy of each project-funded textbook title for their grade (target - 90% at mid-term review). % of grade 1-10 pupils who have personal copy of all required books by project completion (target - 95%)</p> <p>b. % of grade 1-10 teachers having a personal copy of each project-funded textbook and teacher guide for their subjects (target: 90% at mid-term review and 95% by project completion).</p> <p>c. Number of textbook and teacher guide titles produced</p> <p>d. Number of private textbook publishers participating in textbook selection competitions</p> <p>e. Funds accumulated in Textbook Revolving Fund Accounts</p> <p>f. Textbook Revolving Foundation established, operational, and working in accordance with adopted procedures.</p>	<p>The last PSR was consistent with the Actual/Latest Estimate (see next column).</p>	<p>Exceeded. 100% of pupils in each grade have received the relevant set of the personal textbooks in the beginning of each school year, including those students who have been identified by the school as socially vulnerable.</p> <p>Exceeded. 100% of teachers have received a copy of the relevant textbook and teacher guide for their class.</p> <p>Achieved. 120 Textbook Titles (including the 7 titles financed by other donors) or 6,124,000 which will cover the entire core curriculum with the exception of one class (Informatics) which the Textbook Revolving Fund managed to finance following project closure. 47 titles for the teachers guides or 134,000 copies were published, covering all of the material in the textbooks.</p> <p>Exceeded. Fourteen private local publishers were able to compete and be successful in textbook selection competitions.</p> <p>Exceeded. As of June 2003, US\$8.1 million.</p> <p>Achieved. At the time of the Project closure, the Textbook Revolving Foundation was legally established, had an operating budget of its own based on interest income earned, had staff, and had adopted operating procedures consistent with the MoES policy on textbook selection and approval.</p>
<p>2. Capacity Building Component</p>		

<p>a. An increase in the number of schools who raise and manage formal non-budgetary funding and the amount of formal non-budgetary funding going to schools.</p>	<p>Exceeded. Schools included: 54 (1998), 100 (1999), 50 (2000), 100 (2001), 315 (2002). After project closure, all remaining schools (approx. 1100) are to be transferred to new legal, managerial status allowing for school-based management of budgetary and non-budgetary funds.</p>
<p>b. Curriculum Developed and Trainers Trained for the purpose of training School Board Members and Principals</p>	<p>Achieved. In part with the support of UNICEF, the training modules were developed for the school-based management and cadre of trainers trained.</p>
<p>c. School Board Members Trained</p>	<p>Achieved. By Project Completion, 1800 school board members had been trained.</p>
<p>d. School Principals Trained</p>	<p>Achieved. By Project Completion, 315 school principals had been trained.</p>
<p>e. School Accountants Trained</p>	<p>Achieved. Through the parallel support from the Structural Adjustment Technical Assistance Credit, 204 school accountants had been trained.</p>
<p>f. Regional Rationalization Plans Adopted</p>	<p>Achieved. Regional rationalization plans for all marzes were prepared. Three educational zones (Vayots Dzor Marz, part of Kotayk, and part of Yerevan) were more fully prepared and implemented. Capacity for developing rationalization plans in the Ministry was developed.</p>
<p>g. Participation in International Assessments</p>	<p>Partially Achieved. By the time of project completion, Armenia was in the pilot stage of TIMSS.</p>
<p>f. Education Policy Makers participate in study tours and international events</p>	<p>Partially Achieved. Three study tours were organized to Scotland, Sweden, and the Netherlands for about 10 education policy makers. There was participation in other short international conferences by a few of the key stakeholders.</p>
<p>h. School Improvement Projects Approved and Implemented</p>	<p>Exceeded. 312 subprojects were approved (when only 200 were planned). It is estimated that about 1/3 of the total student body benefitted from the program. SIP generally enhanced school capacity for grant application, monitoring and accounting and increased the involvement of the community. About 170 computer classes were established; 300 schools received audio visual equipment; 80 schools received science laboratories; 75 schools received materials to support art and sport classes; and 60 schools organized pre-professional, craft-type classes.</p>
<p>j. EMIS annually collects information, as required</p>	<p>Achieved. The EMIS has collected information from all of the general education schools for years 2000, 2001, and 2002.</p>

1 End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US\$ million equivalent)

Component	Appraisal Estimate US\$ million	Actual/Latest Estimate US\$ million	Percentage of Appraisal
1. Textbook Production and Distribution	16.90	15.99	94.5
2. Capacity Building for Reform Management	4.40	3.21	72.9
3. Support for Project Implementation	1.00	0.87	85.4
Total Baseline Cost	22.30	20.07	
Total Project Costs	22.30	20.07	
Total Financing Required	22.30	20.07	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	0.00 (0.00)	0.10 (0.10)	0.00 (0.00)	0.10 (0.10)
2. Goods	0.30 (0.30)	0.00 (0.00)	2.40 (2.10)	0.00 (0.00)	2.70 (2.40)
3. Services	0.00 (0.00)	0.00 (0.00)	2.70 (2.70)	0.00 (0.00)	2.70 (2.70)
4. Textbooks	1.80 (1.80)	6.30 (6.30)	0.00 (0.00)	6.80 (0.00)	14.90 (8.10)
5. School Grants	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
6. Miscellaneous	0.00 (0.00)	0.00 (0.00)	1.90 (1.80)	0.00 (0.00)	1.90 (1.80)
Total	2.10 (2.10)	6.30 (6.30)	7.10 (6.70)	6.80 (0.00)	22.30 (15.10)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	0.05 (0.04)	0.04 (0.03)	0.00 (0.00)	0.09 (0.07)
2. Goods	0.00 (0.00)	0.00 (0.00)	0.19 (0.17)	0.00 (0.00)	0.19 (0.17)
3. Services	0.00 (0.00)	0.00 (0.00)	0.89 (0.89)	0.00 (0.00)	0.89 (0.89)
4. Textbooks	4.01 (4.01)	6.15 (6.15)	0.00 (0.00)	5.14 (0.00)	15.30 (10.16)
5. School Grants					

	0.31 (0.31)	0.04 (0.04)	1.58 (1.58)	0.21 (0.00)	2.14 (1.93)
6. Miscellaneous	0.00 (0.00)	0.00 (0.00)	1.46 (1.33)	0.00 (0.00)	1.46 (1.33)
Total	4.32 (4.32)	6.24 (6.23)	4.16 (4.00)	5.35 (0.00)	20.07 (14.55)

^{1/} Figures in parenthesis are the amounts to be financed by the IDA Credit. All costs include contingencies.

^{2/} Includes civil works and goods to be procured through national shopping, goods and services procured locally by schools through school grants, consulting services, services of contracted staff of the project management office, training, and incremental operating costs related to managing the project.

Annex 3. Economic Costs and Benefits

Given the nature of the Project, a strict financial and economic analysis of the project was not conducted. The Project Appraisal Document considered that the Government's strategy, supported by the Project and by the Bank-supported Structural Adjustment Program, was to improve the quality and sustainability of the general education system by (i) progressive increases in the level of public funding to education; (ii) progressive increases in the share of the education budget devoted to general education; (iii) permitting more efficient allocation of funds within the system by consolidation of schools, reassessing staffing norms and giving schools discretion over their own expenditure priorities, and (iv) introducing cost recovery for non-core services; and (v) facilitating the mobilization of funds from other sources.

In fact, during the period of implementation, Armenia's public expenditures on education increased as a percent of GDP between 1997 and 2002 from 2.0 to 2.5 percent of GDP. Over the same period, the spending as a percent of total public expenditures rose from 10.8 to 12.5 percent (although for two years, there was a decline of about 1 percent). Additionally, the share of the budget allocated to general education increased to about 60% of the education budget in 2002. As recorded in the body of this report, the Ministry of Education and Science has most recently increased the required norms for class sizes in an attempt at increasing the efficiency of the staffing ratios. By the time of project completion, about 42% of Armenian schools were included in the new system school-based management and financial decision making, allowing for more reallocation of resources according to the schools needs and increasing the incentives for efficiency. The Government had also adopted a plan for inclusion of all remaining schools by the school year starting in 2005. The legal status of schools has been updated to allow them to officially charge for non-core, extra-curricular services. This has increased the schools ability to offer additional courses to their students and community. The involvement of the community in the management of the school also increases the possibility of greater community support in terms of financial or other in-kind support. At least 312 communities did provide this kind of assistance for all of the School Improvement Projects supported by the Project.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating		
	Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification - PreAppraisal					
Dec. 1995	1	Human Resources Specialist			
	2	Social Dev Specialists			
Apr. 1996	1	HR Specialist			
	2	Social Dev Specialists			
July 1996	1	HR Specialist			
	2	Social Dev Specialists			
	1	Consultation Specialists			
Oct. 1996	2	Economists			
	1	Education Specialist			
	1	HR Specialist			
	1	Project Implementation Specialist			
Appraisal/Negotiation					
May 1997	1	Human Resources Specialist			
	1	Education Specialist			
	1	Principal Economist			
	1	Consultant on Information Dissemination			
Supervision					
Mar 1998	4	HR Specialist; Operations Analyst/PAS; Education Specialist, Social Development Specialist	HS	S	
July 1998	4	HR Specialist; Social Development Specialist; Operations Analyst/PAS; HD Officer	S	S	
Oct. 1998	1	Human Resource Specialist	S	S	
	1	Education Specialist			
	1	Operations Analyst/PAS			
	1	HD Officer			
Feb. 1999	1	Education Specialist	S	S	
	1	Sr. Education Specialist			
	1	Operations Analyst/PAS			
	1	Sociologist			
	1	HD Officer			

ICR	Aug. 1999	1	HR Specialist	S	S
		1	Education Specialist		
		1	Operations Analyst/PAS		
		1	HD Officer		
	May 2000	1	Education Specialist	S	S
		1	Operations Analyst/PAS		
		1	HD Officer		
	Nov. 2000	1	Education Specialist	S	S
		1	Operations Analyst/PAS		
		1	HD Officer		
June 2001	1	Operations Officer/PAS	S	HS	
	2	Education Specialist			
	1	HD Officer			
	1	Education Consultant			
Nov. 2001	2	Education Specialist	S	S	
		Operations Officer/PAS			
		HD Officer			
		Education Consultant			
May 2002	1	Education Specialist	S	HS	
	1	Operations Officer/PAS			
	1	Network Education Spec			
	1	HD Officer			
	1	Education/ICR Cons.			

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ ('000)
Identification - PreAppraisal	54.8	128.3
Appraisal/Negotiation	19.1	41.8
Supervision	161.86	302.89
ICR	10	26
Total	245.76	498.86

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	<i>Rating</i>				
<input type="checkbox"/> <i>Macro policies</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Sector Policies</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Physical</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Financial</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Institutional Development</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Environmental</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<i>Social</i>					
<input checked="" type="checkbox"/> <i>Poverty Reduction</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Gender</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Private sector development</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Public sector management</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance

- Lending
- Supervision
- Overall

Rating

- HS S U HU
- HS S U HU
- HS S U HU

6.2 Borrower performance

- Preparation
- Government implementation performance
- Implementation agency performance
- Overall

Rating

- HS S U HU

Annex 7. List of Supporting Documents

1. Education Financing and Management Project, Staff Appraisal Report, World Bank, October 1997.
2. Aide-Memoires and Supervision Reports, Bank Team, various.
3. Project Progress Reports, Project Management Unit, various.
4. Final Project Report, Project Management Unit, May 2002.
5. Education, Financing and Reform Strategy, Consultant Report, December 1998.
6. Textbook Component Progress Reports, Consultant Reports, various.
7. Mid-Term Review Report, May 2000.
8. Mid-Term Beneficiary Opinion Assessment Report, Consultant Report, May 2000.
9. An Evaluation of the Decentralized Management Pilot Project in Schools of the Republic of Armenia, Consultant Report, February 2001.
10. Assessment of the Pilot Reform Program (a qualitative assessment based on school visits), Consultant Report, May 2001.
11. Final Beneficiary Opinion Assessment, Consultant Report, September 2002.
12. Letter from Minister of Education and Science confirming the draft Implementation Completion Report, June 9, 2003.
13. Armenia. Restructuring to Sustain Universal General Education. World Bank Technical Paper No. 498, March 2001.

Annex 8. Beneficiary Survey Results

As part of the final project evaluation, a beneficiary assessment was conducted in the Spring of 2002. The methodology, conclusions and recommendations are presented below. With the exception of some minor editing, the summary of the report is presented as submitted to the Bank and, therefore, the recommendations reflect those of the authors of the report and not necessarily of the authors of the Implementation Completion Report.

ASSESSMENT METHODOLOGIES

In order to be able to discover the variety of existing opinions and experiences among the groups, as well as for the purpose of maintaining the diversity of approaches and opinions expressed, the assessment is of qualitative type. Structured interview/questioning and focus group methodologies for data collection were applied.

Structured Interview / Questioning

Interviews were conducted in a semi-structured way by means of questionnaire consisting of mainly open-ended questions (questions without provided answers to be chosen from). These semi-standardized questionnaire provided an opportunity to collect deeper and more complete data. The use of open-ended questions was conditioned by the qualitative character of the assessment, because in this way we could collect more objective data without involuntarily prompting any alternative answer by the respondent.

In order to information on the 5 requested themes, a questionnaire was developed which included the following:

- Textbooks – 13 questions
- Efficiency of the new type of finance and management reform –12 questions
- Training – 8 questions
- School Improvement Project –12 questions
- Education Management Information System – 3 questions.

Ten beneficiary groups have been assessed as follows: a) specialists from the marz education department, b) school principals, c) accountants, d) teachers, e) parents, f) pupils, g) board members/community leaders, h) publishers, i) textbook authors, and j) textbook evaluation committee /panel members. For each beneficiary group a separate questionnaire was developed.

Focus Groups

Two groups of questions on the textbook and School Improvement Program components were discussed in the focus groups. A list of 16 main questions was designed for these subjects, but the actual questions asked were not specified, which enabled the respondents to conduct free discussions and brainstorming. The opinions expressed are not analyzed by the level of frequency and number of occurrence in the focus groups outcome analysis. The focus group work is based on the principle “My opinion is already expressed by somebody else”, which means that the group members do not comment on the subject that has already been similarly expressed by a fellow group members.

Assessment Process

The beneficiary group interviews were conducted according to a preliminarily agreed time Graph. Some

changes have been made to the time Graphs

according to the needs, the main purpose being to comply to the current situation in the marzes. The marz work mainly went on in an environment of school principal and marz official's assistance. For the interviewing purposes 4 survey groups were created in each marz, and there were four interviewers in each group. For focus groups the survey team consisted of 2 people: group facilitator and minute taker. The interviews were conducted simultaneously in all the marzes during the first week of May. The teams working in Vayots Dzor and Shirak marzes traveled to the marzes for interviewing. The school survey reports of the interviewers were submitted after interviewing. At the next stage of the Assessment the questionnaire responses were assessed against the assessment goals and eligibility of questioning regulations. After the fieldwork was completed the responses were studied school by school, so case study was completed. The case study is presented separately from this one report (18 separate reports). Based on the case study different beneficiary group opinions were studied in compliance with the 5 categories requested in the TOR. The Conclusion chapter is based on the mentioned studies.

CONCLUSIONS AND RECOMENDATIONS

The assessment outcome results are summarized and presented by categories.

1. Textbooks

The majority of the interviewed groups find that the content of the new textbooks generally satisfy the current curriculum demands; generally they are good and nationally oriented; the themes are consistent with curriculum material. A majority of the high school textbooks correspond with the university entrance program. Among the general respondents, the parents and students are the ones who most frequently mention that the textbooks are complicated and unintelligible. The textbook outlook design and lay out are generally evaluated as good; the design complies with the content and is done with good taste. They look attractive to the students. There have been requests to develop a general textbook typeface. The publishers find that the tender time frame should be revised to promote higher quality textbook creation work.

The respondents find that the schools are provided with all of the core textbooks under the new system. The members of focus group mention about the difficulties of ordering new textbooks because of the irregular student flows during the school year. The students from poor, vulnerable families, who are provided free textbooks are identified at the school level; sometimes (very few cases) the issue is addressed formally, decisions are made based on the documentation provided by the local entities of the social welfare agency. The respondents evaluate the identification process "quite fair", when all the parties, meaning the teachers, parents and board members, are simultaneously involved in the process. The vulnerable family identification criteria, as the beneficiaries mention, vary from school to school; nevertheless the recorded general criteria are: one parent (lost soldier parent during the war) or bereaved children; disability; children from poor, vulnerable families. The respondents have frequently mentioned that the selection process is subjective (individual approach is applied) and to some extent, the administration officials, feel a loss of control as a result of the decentralized approach to the decision making. The beneficiaries also mention that the planned percentage of the free textbooks is not sufficient, because the number of vulnerable poor families are more than those who benefit from this allowance ensured by the government.

While expressing their opinions about publishing, printing and new ways of author competitive bidding, also about impact of this component upon the market and initiation of local opportunities, the beneficiaries find that the profession called "publisher" in Armenia has in fact been established during the last few years. Prior to that there were only some publishing houses in Armenia, but there were no "publishing specialists". The fact of developing professional publishers in Armenia is also considered a positive

outcome of the textbook publishing competitive bidding process. Another outcome result is that the government monopoly in textbook publishing is eliminated. The mentioned positive sides of the bidding process are: it is for the first time when alternative choice is provided; transparency of bidding process which has ensured high quality publishing and printing services.

Based on the assessment results, the following recommendations are made:

Apply the principles of separating written and oral speech in primary grades' foreign language textbooks. Make the material presented in all the textbooks more attractive/interesting/motivating.

The programs for subjects taught especially in high school and as a result textbooks should be revised based on a coherent curriculum which will prepare students for the universities/entrance exams (the students should be trained for entering the university).

Feedback and suggestions from teachers need to be taken into account when republishing the textbooks.

Textbooks need to be pilot tested in a few schools before changes are introduced nationwide.

When possible, print the same textbook colors while reproducing them. Bind all the textbooks by sewing instead of gluing them, which will help not to lose the pages.

Develop a general typeface

Present the material going from simple to complicated things, present in a systemized manner

Include sufficient number of practical exercises for confirming the theory passed

Ensure variety of problems and exercises by the level of difficulty and increase their numbers within the same context

Make the presentation of the textbooks which present the subject for the first time attractive, present the material in an intelligible manner.

Develop a mechanism that will ensure provision of all the textbooks to the schools, despite the changes in student numbers in classes during the course of years

Make decision regarding the distribution of free textbooks at school level, with the teachers, parents and board members participating at decision making (it seems that establishment of "uniform guidelines/ criteria" for vulnerable students selection will not be effective, as students attending schools have different background)

Consider the possibilities of providing larger numbers of free textbooks

2. Education Reforms

According to the assessment results, the beneficiary awareness about the new finance and management principles and the level of awareness of its need is considerably high, and an obvious awareness increase is observed against the 1999 assessment data. Respondent awareness of new principles is recorded even in the schools that do not operate according the new principles. The beneficiaries find that board management makes the school related decision-making more efficient. Although some respondents mention that it will take a considerable time before they will be able to somehow evaluate the board operation. They find it is generally better to have "per-capita funding" than not to have it; in the meantime it is mentioned that the schools with small number of students cannot be envied.

Beneficiary assistance to reforms is mainly evaluated as "average" or "highly", except for the local government involvement. According to the responses, the role of parents and other community members role has increased in schools. Due to the beneficiary participation in school management through the institution of school board, the awareness of participation in school related issues has increased; the parents, for example, have active participation in fund raising activities for schools.

All the interviewed board members mention that now it is up to them to decide the school "budgeting and

expenditure priorities”; there is nobody dictating them; there is no need to get somebody’s approval. Some school boards have established school foundations for attracting additional resources; they collect a small amount of drams per month from the parents, which is deposited in this foundation. The beneficiaries find that the class size has not changed after transition to management and finance new principle; schools have become more independent; they experience financial sustainability.

Based on the assessment results, the following recommendations are made:

Initiate projects at republic level, where school participation will directly depend on the school board operation; envisage small expenditure budgets for board operation; disseminate information about the interesting performance manner of individual school boards and their results; ensure information dissemination to all the schools once per month.

3. Training

Training participants find that it was very important for them; it helped them develop definite capabilities and skills, which are applied during their operation. Some beneficiaries mention that they did not have a chance yet to apply the new skills. There are wishes expressed: conduct more specified training referring single profession; increase the length and frequency of the courses; and include materials about laws and regulations in hand outs.

Based on the assessment results, the following recommendations are made:

Conduct three types of training: education related in general (“Reform Introduction, General Approaches”), specialized (“Accounting Reporting and Recording”), and developing general skills (computer classes). Look at possibilities of making training sessions more frequent.

4. School Improvement Program

The beneficiaries indicated that the outcome of including the schools in School Improvement Program is that it created greater parent and community interest to participate in school operation. Co-financing made by the parents and community is observed in those schools, which were rewarded with grants; and also parents and community are motivated to control the school. The program implementation in the schools have provided opportunities for obtaining definite skills: computer skills; sewing and design; bee keeping, etc. Parents and teachers benefit from these opportunities as well (at some schools). The schools already are thinking of program sustainability, in some cases they have initiated actions for ensuring continuation of the program.

Based on the assessment results, the following recommendations are made:

Look at possibilities for continuing the program. Make the survey of all grant giving organizations in Armenia and inform about their activities in special information leaflets.

5. Education Management Information System

Marz Education authorities mention that EMIS helps them and makes their operation easier. Both marz authorities and directors have mentioned that they do not make decisions based on information system data. They request to organize frequent training sessions for those specialist who work with EMIS.

Based on the assessment results, the following recommendations are made:

Revise the system from the point of possible changes (make it simpler); ensure that directors utilize the entered data; provide the marz education authorities' reports to all the school boards of each marz .

Annex 9. Stakeholder Workshop Results

Education Financing and Management Reform Project Closing Conference, May 23, 2002

On May 23, 2002, a Conference was held in Yerevan to mark the closing of the Education Financing and Management Reform Project. The objectives were to: (i) share the achievements and experiences of the project with a wide group of stakeholders; and (ii) identify lessons for the preparation activities for the Bank-financed follow-up project in the education sector.

The agenda consisted of presentations on the following: experience gained from the project at various levels; evaluation of project outcomes; methodology, selection criteria and preliminary findings of the Beneficiary Assessment scheduled to be completed by end-June 2002; the direction of future interventions in the education sector; implications of knowledge economy for reforms in the education system; and cooperation with other donors within the framework of the second project. In addition, group discussions were held on the three main project components: the rental scheme for the textbooks; School Improvement Program (SIP); and decentralization of the general education system. The discussions were intended to analyze the strengths and weaknesses of each component and recommend improvements for future implementation.

The participants included the Minister and Deputy Minister from the Ministry of Education and Science (MoES); key Ministry and marz officials; representatives of the donor community; NGOs and other civic organizations; national and international education specialists; and teachers and school principals. A list is attached as Annex 1.

The following are the highlights of the Conference:

Inaugural Session

The Conference was opened by the Deputy Minister for General Education, Ms. Aida Topuzyan, who underscored the project achievements. She specifically focused on the success of the textbook component, which had succeeded in providing books to all students and also commended the participating schools for the SIP, which had helped social cohesion through parental and community involvement. The textbook component had achieved in providing a 112 textbooks and 49 teachers manuals, covering the entire core curriculum for Grades 1-10. It established the cost-effective and sustainable mechanism for the provision of textbooks in the future. The SIP has financed 302 micr-projects including 170 computer labs – one third of which were connected to the internet through support of organizations like Project Harmony and OSI.

The World Bank Resident Representative, Mr. Owaise Saadat, identified three major areas of success: (i) high level of government ownership for the reforms; (ii) donor coordination; and (iii) support from parents and community, which had ensured project sustainability. While congratulating the government and the stakeholders on the project's success, he said that it was also important at this point to closely scrutinize the project activities and fine-tune the program for future implementation.

The Project Director, Ms. Karine Harutynyan, presented a detailed overview of the Armenian General Education System and the reforms implemented by the project. The PD's presentation also included: implementation status of each component; strategies, techniques and methods used, achievements and failures; and lessons learned. The key lessons including significant consultation process with the stakeholders during the design and implementation of the project. The project did not achieve as much in the area of capacity development for assessment as had been originally planned and did not improve the key

indicators for the efficiency of the education sector. However, the project through the institutional reforms and the development of the EMIS has provided the groundwork for further work in this area.

The World Bank Lead Education Specialist and Program Team Leader, Ms. Mary Canning, reiterated the Bank's continued support to the reforms and invited the participants to take a fresh look at the project's activities and suggest changes for further improvement. She underscored the need for broad consensus on the way forward.

The session was closed by the Minister of Education and Science, Mr. Levon Mkrtchyan, who emphasized the importance of quality education. He commented on the success of the textbook component but admitted that the rationalization program had not moved at the desired pace. The main reason for the slow progress, according to the Minister, was that the public was not prepared to accept the changes envisaged under optimization and that it was approached in too mechanical a manner (focusing on teacher ratios and class size without sufficient sensitivity to local conditions). He reiterated that the country was now ready for more serious challenges and said that there was a need to consolidate the system through creating clear links between the various sub sectors: General Education, Specialized Education and Higher Education. He said that the vision for education in Armenia was based on three principles: Armenian traditions and values, tolerance and competitiveness.

The inaugural session was followed by group discussions. The participants were requested to focus on assessing the current situation in each of the thematic topics and provide concrete suggestions for upgrading the program. The following section provides a brief summary of the issues identified by each group:

Group Discussions

All three groups were characterized by intense discussions involving a large number of participants from different constituencies.

Group 1: Rental scheme for the sustainability of the textbook project

- Provision of free textbooks to vulnerable students (10%) needs to be continued.
- Teachers need to be consulted before making decision on reprinting of textbooks – some books are in good condition even after four years of use
- In some cases extra funds are needed for repair of damaged/used textbooks before redistribution
- More feedback from teachers needed for improvement of textbooks
- Textbooks need to be pilot tested before wider dissemination.
- There is a need for alternative textbooks for slow learners
- A monitoring and evaluation mechanism is needed for measuring learning outcomes
- Public awareness campaign on the Textbook Revolving Fund needs to be continued
- A mechanism is needed to allow transfer of books from one school library to another according to demand and availability

Group 2 – SIP implementation mechanisms and recommendations for the second project

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- The SIP has been successful in motivating school autonomy and community involvement and, therefore, should be continued
- There should be concentrated support for training teachers in the use of new technology and in the

provision of useful materials

- Schools that have had successful outcomes in the on-going School Improvement Program should be used to help mentor new schools that may participate in any new program
- Financial accounting rules are too complex and create a disincentive for schools to seek non-budgetary funds
- Government needs to introduce a new mechanism for providing more autonomy to schools in using funds and tax incentives for income generating activities

Group 3 – Further decentralization of the General Education System

- Considerable disquiet from those present about the operation of community schools; but support for School Councils under Marz-administration
- Community schools become the victim of local politics and vested interest groups, especially during the selection process for school directors
 - School Councils are not effective in community-managed schools since small communities in the rural areas do not have specialists who can be elected to the councils
- There is a need to review the legal status of schools
- Roles and responsibilities of School Council members, directors and Marz Education Department (MED) staff need to be further clarified
- Some schools with per capita funding ended with less money than other schools

Presentations

Key presentations were made by two Heads of the Marz Education Departments, Mr. Badalyan from Gegharkunik and Mr. Manucharyan from Syunik, and a school principal, Ms. Sargsyan from School No. 5. The Head of Syunik MED commended the project for providing textbooks to all students in general schools, and the need for curriculum to remain stable so that textbooks are not constantly changed. Schools in his Marz had raised considerable amounts of off-budget funds. There is a need to training community leaders in the implications of school autonomy. The Head of Geharakyunik MED underscored the importance of the MED monitoring of schools to ensure quality education. He especially praised the SIP as being instrumental in increasing students' interest in schools and mentioned that it had had a positive impact on attendance. He also commented on the MIS reporting system and said that certain aspects needed reviewing to decrease the time spent by schools on repeating information. He said that the textbooks were of good quality, especially in terms of presentation, but that teachers should be consulted about improvements.

The School Director highlighted the positive aspects of the school decentralization program and stated that the School Councils had helped in creating networks and contacts for community participation and contribution to schools. The SIP had enabled the schools to re-introduce Armenian craft traditions. However, she was critical of the rationalization program, that the merging of classes could result in lower quality of instruction and was not physically possible in some cases due to the construction of school building.

The presentation on the Beneficiary Assessment focused on the methodology and selection criteria and some preliminary findings. Four types of schools were selected:

Marz and community schools managed by School Councils
All SIP schools

SIP schools managed by School Councils
Non-reform schools.

Preliminary results, based on only four schools from a cohort of 18 schools, were shared. Initial results indicate an overall improvement in perceptions of all stakeholder groups (parents, teachers, school directors, school council members and marz education department officials).

The World Bank Education Specialist, Mr. Toby Linden, discussed the importance of learning in the emerging knowledge economy. He said that there was an increasing need for knowledge-based jobs which required skills like information processing, flexibility to transfer knowledge, ability to deal with change, it was important for countries to incorporate these skills in the school and higher education curriculum. The curriculum needed to focus on analytical thinking, collaborative teamwork and application-based continuous learning. The Bank could be an active partner in this process of change by sharing its global knowledge with Armenia and help in reforming its education system to prepare for the knowledge economy.

Donors and NGOs

Several donors and NGOs discussed programs which were relevant to the proposed project. All wished to be partners. The UNICEF representative provided an overview of UNICEF's interventions in the education sector, which consisted of life skills education and also teacher training in special areas, using a learner centered approach. An NGO, Project Harmony, shared its experience on the school connectivity program and offered collaboration on technical issues, access to the ICT infrastructure, and training. The Norwegian Refugee Council presented its program on human rights education. The SOROS discussed its program on ICT training for teachers -- an initiative which was linked to the school telecenters program – its web-based platform for the development of educational materials and its education portal.

Conference closing

In closing the conference, Ms. Aida Topusyan thanked the participants for their inputs. She emphasized that the proposed second project was still at the draft stage. A Working Group had been established to prepare the project and that when the initial documentation is available it would be discussed widely.

Additional Annex 10. Borrower's Contribution to the Implementation Completion Report

Borrower's Contribution to the Implementation Completion Report

ON A CREDIT No. IDA 3007 AM
FOR THE EDUCATION FINANCING AND
MANAGEMENT REFORM PROJECT

August 2, 2002

Assessment of Project Achievements

Education Financing and Management Reform Project is recognized by GoA as a very successful education development project because of its specially designed reform strategies and its successful implementation mechanisms as well as the great participation of big number of different stakeholders in the course of implementation of the project. The major conclusion on the general education reforms can be that they have proved to be the right way to go in the difficult transition period for Armenian economy. A major progress has been achieved in decentralizing the system and increasing school autonomy.

A sustainable textbook provision system in Armenian schools has been established. All students in the Armenian general education school system now are provided with their own copies of all of the core curriculum textbooks. The vital issue of textbook provision for all schoolchildren is thus resolved. Furthermore all teachers in Armenia have received free copies of teacher's guides for their specific subjects and free copies of their subject textbook, which is a big social assistance to teachers. Within the textbook project a rental scheme and Textbook Revolving Fund (TRF) has been established ensuring sustainable and demand-driven system of financing textbooks and providing equity between schools and students within the schools by providing all schools and all students with textbooks on an equitable basis. The rental scheme makes textbooks affordable to the parents by providing the textbooks at the lowest possible cost to them, children from the poorest families are provided with free textbooks.

Textbook project promoted the Armenian publishing and printing industry. Due to the competitive bidding process for textbook selection, which was developed and applied as a key part of project implementation, state monopoly of textbook publishing has been eliminated and replaced by private sector, market oriented publishing. National textbook publishing industry has been established during the four years of the implementation of the project, and it is improving in financial strength and quality of output year by year. The project has promoted formation of Armenian textbook manuscript. The quality of textbook production in Armenia has greatly increased. The new textbooks are colourful, well designed and well printed on high quality paper, versus the old Soviet ones. They meet all internationally accepted printing and binding standards for school textbooks and are designed to achieve a 4-year book life when used in schools. The Government of Armenia is confident that those textbooks, written and published entirely in Armenia, will soon be compared favourably with those textbooks produced in countries which have long years of tradition and experience in textbook publishing.

Within the textbook project it should be mentioned that the 10% of textbook price which is the share of government under the credit project is provided to socially vulnerable pupils free of charge. However the practice showed that the number of socially vulnerable pupils is more than 10% and it is envisaged to find alternative financing sources with the view to increase provision of free of charge textbooks up to 30%.

New per pupil funding mechanism has been developed and introduced in the general education system.

New funding system offered the schools much more flexibility and freedom to be innovative and creative both in making financial and institutional choices. It increased the sense of responsibility and accountability of the school principals as well as transparency in using the funds within the school. School became motivated to save and use the savings according to their needs. School boards have been established in all pilot schools. The Boards more often and actively are becoming decision makers regarding mobilising resources within the community, utilising savings from the school budget, distribution of teaching hours, applying to different grants, etc. Training provided to the school principals, boards and accountants indicate that the training has helped considerably in building knowledge and consensus on the reforms for school autonomy. A positive outcome of the reforms increased involvement and interest of the parents in school activities. Teacher-students and teacher-parents relations have also become more open in the pilot schools due to continued interaction between parents, teachers and School Council members. On the other hand with increased school autonomy schools are becoming more entrepreneurial, and are responding more quickly and efficiently responding to the community educational needs. In general, the pilot schools enjoy a fair degree of autonomy in making financial and institutional decisions. The linkages between the Councils, principals, parents and community are functioning smoothly.

The Management Information System has been established in general education system of Armenia. It improved MoES capacity in data processing, storage analysis and supply of education management information so that education planers and administrators can avail themselves of reliable and timely data. The MIS assisted in better coordination and further improvement of disbursed efforts in the acquisition, processing, analysis, use and dissemination of educational information, streamlined flow of information for decision making by reducing and eliminating duplications, as well as filling information gaps.

A consolidated system of data collecting and information analysis has been established for 2001-2002 school year which consists of the following parts: school passport, managing staff, number of class hours, teachers, pupils, assisting personnel, library, and finance. The created data base gives the opportunity of receiving efficient data analysis which is given to appropriate government agencies.

School Improvement Project (SIP) was successfully implemented in all marzes of Armenia. The project increased school capacity building and creation of out-of-budgetary funds, supported the schools in the process of achieving autonomy, increased parent and community involvement in school management and operation, improved school performance and the quality of education. Within the framework of SIP project 312 schools implemented micro-projects. As a result:

- 160 computer classes were established with 620 computers and relevant equipment: copiers, printers, scanners, etc. In the scope of these 160 micro-projects the computer classrooms were repaired and furnished. As a main result the pupils of different grades received minimum computer skills and use computers in school life. They are publishing school newspapers, creating teaching materials, making graphical works. many schools are connected with internet.
- 300 schools received TV and VCR. The great part of these schools purchased teaching movies on different subjects and use them in the process of teaching of geography, chemistry, physics, languages, etc.
- 72 schools received 118 laboratory sets on physics and chemistry. They are organizing in-depth study of Chemistry and Physics.
- Almost 100 schools are implementing micro-projects on Arts, Music and sport. The great part of these schools repaired and furnished sport halls, concert halls and arts rooms. Many schools organized exhibitions, shows and concerts.
- Almost 60 schools are organizing pre-professional education for graduates: In these schools necessary conditions were created for studying such kind of national Arts and Crafts as carpet-making, wood working, gravure, timbering, stitchcraft, beadwork, macrame, gobelin.

- 12 schools are giving their graduates necessary knowledge and skills on bee-keeping, agriculture mechanisms, driving.

Constraints encountered during the Education Project implementation included inconsistency and discrepancy of the Education law with other relevant legislation. Before starting reform implementation a lot of careful work should be done in developing law regulations and insuring non contradiction between different laws. Training and consultation with local staff should be as much as possible. Low preparedness, readiness and awareness of the main stakeholders about planned reform in the beginning of the process resulted to little support by main population and slow pace of progress at the initial stage. On all levels of governance, fear and disinclination of losing power resulted to creating artificial difficulties and opposition to reforms; sometimes local elite to a large extent dominate the Councils. Thus, the Ministry of Education is trying to put emphasis on more information and awareness on the reforms among all stakeholders to ensure that vested interest groups do not make control of the School Councils and all parts of society participate in the Council elections.

Cofinanciers: Involvement of Co-Financiers

In order to assist in financing of the Project the UNDP and UNICEF acted as co-financiers in the Education Financing and Management reform project. The Project with UNDP supported the preparation of reforms in general education system, particularly it assisted in development of Operation Manual for School Improvement Project, including regulations for grant submission, selection and evaluation of micro-projects and financed 10 pilot micro-projects. The UNDP project assisted in development of training modules for school principals. The modules were designed to meet the school principals' needs, in order to increase the capacity of the educational professionals' financial, legal, managerial, and leadership skills. Within the UNDP project printing of the three main textbooks for 2nd and 3rd grades was organized. UNICEF Project organized development of training materials and training of trainers for school principal training.

Assessment of World Bank and Borrower Performance

World Bank

The overall Bank performance in preparing and supervising the project was Satisfactory. The project concept was developed thoroughly and the Staff Appraisal Report prepared by the World Bank provided a great support in designing and implementing project components. During the project implementation the Bank staff provided continuous and valuable assistance to the Government, Ministry of Education and Science and PMU staff in reconciling all project related problems. In light of the financing priorities the Borrower in a number of cases requested reallocation of funds within the framework of the Project, whereby the requests were always discussed thoroughly and supported by the Bank. There were some disbursement delays from the Bank, which on the whole did not have significant impact on the course of the Project.

Borrower

The Borrower's performance is related as Satisfactory. Through the entire project the Government had its strong commitment to the project. It actively participated in the project by supporting and promoting reforms. The Government has timely issued all the necessary resolutions and decrees on general education reform procedures. Particularly the first and major step in this direction was the Government decree on "Decentralization of the Management of the State General School System" issued in October, 1998, based

on that decree, 57 schools selected from 10 Marzes have been transferred to the management of local authorities with an experimental period of a year. The next important step in piloting reform implementation was the next Government Decree – the “Approval of the Republic of Armenia General Education Pilot Reform Project”, which was issued in June 1999.

The Government has its significant role in creating sustainability of the Textbook Project. Particularly, the Government has supported the establishment of TRF NGO and continuously monitored the process of collecting textbook rental fees in schools considering it as a high priority.

However due to some financial drawbacks, the Government has not provided completely the 10% of its share to the project, particularly it refers to providing free textbooks to socially vulnerable pupils, the Government did its commitment allocating funds to the textbook revolving fund only for 1998 and partially in 2001. Nevertheless the Government obligates to do its commitment allocating the rest of its share to the revolving fund.

Sustainability of Project Outcomes

- The project led to a comprehensive shift in the general education system of Armenia through introduction of new mechanisms in financing and management of schools and gave increased autonomy to schools. The project has piloted all innovations of reforms in the schools, which have proved their viability. Its vivid evidence is that in October 2001 after four years of piloting the reforms the Government of Armenia has assessed the pilot stage as successfully completed and made a decision on passing to the stage of transition of the whole school system to the new ways of operation. The full transition will be made in four years and finished in 2005. Each year around 300 schools will be included in the process. This policy was discussed widely with all stakeholders, and finally included in Armenian Education Sector Development Program for five years, which was adopted by the National Assembly of Armenia.
- Sustainable results were achieved with the development and introduction of new per capita funding of schools. Almost all schools involved in pilot admitted that the new funding mechanism allowed flexibility and is better than the old system where the line budgets were used and savings had to be returned to the Government. The old system was discouraging any savings effectiveness measures. In many cases, Councils had taken decisions to use savings for increasing principal’s salaries, providing bonuses to high performing teachers and also for school maintenance and repairs.
- The project made a significant contribution to strengthening teacher-parents, teacher-student relations due to continued interaction between parents, teachers and School Council members. With increased school autonomy schools are becoming more entrepreneurial, and are responding more quickly and efficiently responding to the community educational needs.
- The project also led to the establishment of Textbook Revolving Fund, which provides sustainable textbook provision to schools. The TRF is an independent legal entity – Foundation, represented by all schools in the country and chaired by the elected Board of Trustees. During the project life the Fund has generated significant funds and enough capacity, which allows its independent and smooth operation in the future. It has its own executive office of 24 staff members and is completely self-financing its operating expenses. Due to this Fund all schools can regularly procure their own textbooks beyond the Bank financing.
- The project has led to the establishment of EMIS in Armenia for the first time, which is facilitating the acquisition, processing, analysis, use and dissemination of educational information. Currently education

planners and officials can avail themselves of reliable and timely data and made decisions based on this data. The collection, analysis and dissemination of information have become a regular, annual process for the MoES.

- The SIP created favorable conditions for active involvement of parents and community members in the school activity. Within the project schools provided various educational services to communities thus serving the needs of the community. Many schools created extra budgetary funds, which enable them to continue the micro-project without the grant funds after project completion.

