ADB

Evaluation Study

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Sector Synthesis of Evaluation Findings
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Education Sector

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ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
BOU	–	Bangladesh Open University
EVIS	–	Evaluation Information System
M&E	–	monitoring and evaluation
O&M	–	operation and maintenance
SWAp	–	sectorwide approach
TA	–	technical assistance
TVET	–	technical and vocational education and training

NOTE

In this report, "$" refers to US dollars.

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EXECUTIVE SUMMARY

A sector synthesis of evaluation findings presents a summary of the Asian Development Bank's (ADB) evaluation findings in a given sector, and highlights major issues encountered, lessons identified, and good practices that can be taken into account in the preparation and implementation of future assistance programs and strategies. This sector synthesis is the third such report in the education sector and builds on the findings of the second sector synthesis of evaluation findings (August 2000). It covers operations evaluation studies in the sector that were undertaken from 2000 to 2008.

Education comprises a small proportion of total ADB assistance. From 1970 to 2007, ADB's total loans and Asian Development Fund (ADF) grant assistance amounted to about $129.5 billion. Of this, only 5.8% assisted the education sector. Basic education and education sector development received the largest and second largest shares, respectively, in 1990–1999, while in 2000–2007, education sector development and secondary education received the largest assistance. Total other non-ADF and technical assistance grants amounted to $2.5 billion, about 8.1% of which was provided to education. The basic education subsector received the largest share in 1990–1999 but was second to secondary education in 2000–2007. The latter can be attributed to large grant assistance to the secondary education subsector as part of post-tsunami emergency grant assistance. Lending modalities used in the education sector have expanded from project loans to include sector development programs and participation in sectorwide approaches (SWAps) employing both project and program lending.

Project completion reports are available for 92 projects and, as of 30 September 2008, 36 had been evaluated. The evaluated projects amounted to about $1,752 million of total investment by ADB, governments, and cofinanciers, with ADB financing about $1,045 million. Of these, 12 projects were evaluated from 2000 through 2007, comprising the scope of this synthesis—two projects in primary education, two in secondary education, three that assisted both primary and secondary education, two in technical and vocational education and training (TVET), and three in postsecondary and higher education. These projects were approved in 1988–1996.

The evaluated education projects addressed in their project designs the general concerns of improving access to schools, particularly by disadvantaged groups; improving the quality of schooling and learning; increasing internal and external efficiencies; and institutional capacity strengthening and development. At the time they were prepared, the evaluated projects were found to have been generally relevant and consistent with the needs and priorities of their respective countries, as articulated in national and sectoral development plans and strategies, and with ADB's overarching goal and the respective ADB country strategies and programs.

The evaluated projects generally met the physical output targets to which they aspired at appraisal, and several exceeded some of their targets. Shortfalls arose from implementation delays, including delayed recruitment of consultants, weak coordination among stakeholder agencies, and lack of in-country staff development coordinators.

All of the evaluated projects cost less than the appraisal estimates when the project accounts were closed. On average, the projects cost 85% of the appraised cost. Except for one evaluated project, the actual amounts of loans disbursed were less than appraisal estimates. The significant depreciation of some currencies against the United States dollar, particularly during the Asian financial crisis in 1997, generated loan savings for some projects. Cofinanciers joining during implementation also led to the cancellation of some ADB loan amounts.

After being declared effective, the evaluated projects were implemented over an average of 6.4 years, ranging from 5.7 years to 7.6 years. All but one were completed beyond the implementation schedule prepared at appraisal. Time overruns ranged from 10% to 27%. The longer than expected project implementation periods were attributed to a number of factors, including delays in the appointment of and frequent changes in project leadership or management, delayed establishment of local project offices, delayed recruitment of consultants, large number of subprojects to be appraised, and unfamiliarity with the technical specifications of equipment to be procured. Where there was cofinancing, delays in signing grant agreements also caused implementation delays.

The management and organization of the evaluated education and TVET projects varied across the countries. Typically, a central project implementation and management group was established for each project. When project activities were spread out across the country and/or government administration was decentralized, local project implementation groups were also established.

The borrowers for the 12 evaluated education and TVET projects generally performed satisfactorily during project implementation. However, some were observed to have not provided sufficient supervision early in the implementation period, which contributed to delays. In these instances, borrower performance did improve later in the implementation period. Some of the challenges faced during implementation included frequent staff turnover early in the implementation period, weak coordination across multiple government agencies and levels of government, central procurement unsuitable to local needs, and too large a membership in project steering committees.

ADB performance was rated satisfactory for most of the projects. At least half of the evaluation reports noted insufficient ADB project supervision early in the implementation period, which was made up for after the midterm review. For projects that were geographically dispersed or complex, longer supervision missions were noted by the evaluations.

The evaluated projects generally addressed inclusive development, particularly improving the school participation of girls. The latter was accomplished by working with communities, recruiting more female teachers, revising curricula and learning materials for improved gender perspective, and building schools closer to the target populations. The evaluated projects did not generally target specific disadvantaged groups, but some targeted rural areas by locating project facilities and interventions there. Community participation was an important feature in the implementation of some projects. The preparation of the evaluated projects generally involved consultations with communities. Primary education projects established school management committees and parent-teacher associations, which is an important step to help ensure improvements in education quality over the long term.

Institutional development activities were generally included in the design of the evaluated education and TVET projects to address low capacities in planning, managing, implementing, and monitoring education-related activities, systems, and institutions from the national level (ministries) to the local level (schools). The projects provided staff development, established new organizational structures, and developed support systems, including those for management information and for assessing students. In the course of project implementation, policy dialogue was pursued to effect some institutional changes, including increased staffing and establishment of new offices where needed. The impacts of these activities were generally rated from "moderate" to "significant."

The evaluated projects in education were mostly relevant, effective, efficient, and likely to be sustainable. Nine of the 12 of the evaluated projects were rated successful. Eight of the 12 projects were rated "relevant" or "highly relevant." The TVET projects were all rated "partly relevant," partly due to the shift in education lending priority to basic education. Ten of the 12 evaluated projects were rated "efficacious" or "effective," while two were "less effective." Seven of the evaluated projects were evaluated to be "generally or highly efficient," while the other half were "less efficient." Three of the four higher education projects were rated "less efficient," partly due to underutilization and lack of regular maintenance of project facilities and equipment, low completion rate of staff who were awarded fellowships, and low graduation rates of students in project-assisted institutions. The majority (8 of 12) of the evaluated projects were assessed to be "likely sustainable." For projects rated as "less likely to be sustainable," the availability of resources for their long-run operation was assessed to be not certain. Three of the "less likely to be sustainable" projects were in higher education; and the assisted universities were dependent on government support.

The evaluation studies identified many lessons that should be taken into consideration when preparing assistance strategies, and designing and implementing specific assistance in the education sector. The key lessons are as follows:

(i)   Sustained development for improving access and quality in the education sector takes a prolonged period of time. In this context, a realistic strategy for achieving development impact in education is to undertake a long-term commitment of assistance with a hierarchy of objectives to guide priorities and project foci, which, in turn, should be guided by a sector strategy and action plan for overall sector development. A single intervention will not be sufficient to help achieve sustained development impact.

(ii)   With a view toward improving the utilization of school facilities, preparing better forecasts of demand for primary and secondary schools and for TVET and higher education programs is necessary. Stakeholder consultation, if not participation, can facilitate this process. Information from government forecasts and static data should be augmented by factors influencing private decisions on school choices, and should take into account regional variations in population density, competition from other schools, and labor market demand.

(iii)   Providing a standard investment package for all project schools may simplify project implementation and obtain better terms for procurement, but this may not match the needs of individual schools and thus lead to idle facilities and additional costs of maintaining such facilities.

(iv)   The introduction of reforms may face skepticism, if not opposition. To overcome skepticism, project design may consider providing a complementary package of interventions that will show visible improvements associated with the reform.

(v)   Evaluation results indicate that to reach girls and/or disadvantaged groups, targeted assistance yields positive outcomes.

(vi)   A teacher training plan should be prepared before teacher training commences. The plan should address not only the training activities, but also the availability of replacement teachers, if required, while the regular teachers are undergoing training. Evaluation results also point to the need for having institutionalized, continuous professional development of teachers and moving away from one-time, individualized programs.

(vii)   Advanced academic training and research do not necessarily provide effective preparation to improve teaching and learning quality, nor to improve teaching and research management; training in teaching and in management is also important.

(viii)   Project-assisted institutions should be required to prepare annual preventive operation and maintenance plans in accordance with manufacturers' recommendations and to allocate sufficient annual recurrent budget from reliable funding sources for operation and maintenance.

(ix)   For weaker or new offices and institutions, it is advised that a comprehensive package of institutional capacity development, which balances inputs for technical capacity development with those for management capacity development, be prepared. At the same time, to create an institutional development impact, a critical mass of trained staff should be considered. Where project activities include sending people for overseas fellowships, an implementation plan covering various aspects of training and having a person dedicated to planning and implementing the training plan are necessary.

(x)   To provide clearer guidance during project implementation and impact assessment, the desired outcome/target for each project objective/project outcome and impact should be quantified. Among others, successful monitoring and evaluation systems have allocated sufficient staff resources and paid greater attention to the collection and use of data for feedback and maintenance of what is working well.

Following the development impact achieved by the evaluated projects and the evaluation results obtained, several key issues that have implications for future assistance to the education sector are highlighted:

(i)   The progress achieved in improving access to primary education presents a challenge for the next level of education, secondary education, to provide enough places for the increased number of primary school completers. At the same time, governments have to do a better job addressing the education and training needs of disadvantaged and hard-to-reach groups, including developing targeted assistance. In addition, the focus on improving access has been achieved, to some extent, by prioritizing it over quality improvement. This implies that another item on the agenda is the improvement of education quality with a view toward raising pass and graduation rates and lowering repetition rates.

(ii)   To serve hard-to-reach and disadvantaged groups, expand secondary education access, and provide TVET programs, nongovernment and private providers may be more efficient than government providers. Thus, governments need not take on all the responsibilities for providing education and TVET programs, and should encourage the nongovernment and private sector to take on more of this role. Governments can then increasingly coordinate and facilitate education activities in the country, and monitor and supervise the quality of education and training provided by the private sector. However, an appropriate framework for facilitating private sector participation and public-private partnerships in education needs to be in place.

(iii)   Given limited public sector resources, expanding the provision of secondary education and sustaining the development of primary education mean that assistance from development partners remains important. The challenge for development partners, including ADB, is to improve the coordination of their assistance toward achieving greater development impact. Program-based approaches, including SWAps, should be considered where appropriate. In this context, the role of a sector strategy and action plan to bring coherence and consistency to the programs of all development partners is highlighted. On the part of ADB, this could potentially mean participation in more SWAps and increased use of program lending in its future assistance in the education sector.

(iv)   The challenge of ensuring the relevance of TVET programs to improve the employment chances of their graduates remains. TVET curricula need to be regularly reviewed and updated for continued relevance to market demand. Sufficient linkages of education and

training institutions with employers and private enterprises need to be established and maintained, as these are crucial to the success of TVET programs.

(v) The evaluation of some of the projects raised concerns regarding their sustainability, particularly of project-assisted activities, facilities, and equipment. Institutions may thus need more capacity and policy development assistance to facilitate raising revenues, including by improving cost recovery, raising fees, establishing effective production units, and developing public-private partnerships.

(vi) While some improvements have been achieved, school management and supervision systems are still weak, and teacher absenteeism rates remain at unacceptable levels. Monitoring by stakeholders, particularly parents and communities, will continue to be important; however, their capacities for monitoring inputs to improve education quality need to be regularly strengthened. Greater focus and assistance are needed to improve management and governance systems in the education sector, including reviewing potential overlaps or conflicts in institutional responsibilities; continuing capacity development; and use of information and communication technologies, e.g., management information systems. At the same time, better quality monitoring and evaluation processes are still needed, from project preparation to beyond project implementation. The establishment of effective education management information systems is still a challenge. More awareness-building of its importance is needed; and regular, adequate budget allocations are also required.

(vii) Some governments are decentralizing or delegating responsibilities away from the center to provinces, districts, or communities. Units away from the central government, however, often lack the capacity to manage, supervise, and implement education-related activities. Successful decentralization or delegation thus requires capacity strengthening of personnel in offices and agencies away from the center.

I. INTRODUCTION

1.   A sector synthesis of evaluation findings presents a summary of the Asian Development Bank's (ADB) evaluation findings in a given sector, and highlights major issues encountered, lessons identified, and good practices that can be taken into account in the preparation and implementation of future assistance programs and strategies. This sector synthesis is the third such report in the education sector and builds on the findings of the second sector synthesis of evaluation findings (August 2000). This report covers operations evaluation studies in the sector that were undertaken from 2000 to 2008, i.e., project performance evaluation/audit reports, technical assistance performance audit/evaluation reports, sector and thematic studies, and sector assistance program evaluations. The synthesis is limited to the information, findings, and analyses of previous evaluation studies. It takes into account information and data stored in the Evaluation Information System.

II. OPERATIONS IN THE EDUCATION SECTOR

A.   ADB Strategy

2.   ADB policies and strategies highlight the importance of education (and human development) in social and economic development, and in poverty reduction in particular. In 1999, ADB adopted poverty reduction as its overarching goal, building on the three pillars of pro-poor sustainable economic growth, inclusive social development, and good governance. Human development was emphasized as a means for the poor and the disadvantaged in the Asia-Pacific region to benefit from the opportunities of economic growth.

3.   In 2008, ADB refined its vision through the *Strategy 2020* document. ADB is currently focusing on three strategic agenda—inclusive growth, environmentally sustainable growth, and regional integration—and five drivers of change—private sector development, good governance and capacity development, gender equity, knowledge solutions, and partnerships. ADB counts education among the five core specializations in its operations; the other four are (i) infrastructure; (ii) environment, including climate change; (iii) regional cooperation and integration; and (iv) financial sector development.

4.   ADB's education committee completed and published in 2008 a comprehensive strategic study of the education sector.[1] That study presents a set of actionable recommendations for ADB operations in the education sector and helps ensure that, within ADB's current education sector policy and strategy framework,[2] sector operations continue to respond effectively to development needs arising from evolving labor markets and rapid economic and social development. Thus, in addition to assisting basic education, priority assistance in the sector may include technical and vocational education and training (TVET) and skills development and higher education, depending on the country situation.

B.   The Education Portfolio

5.   Education comprises a small proportion of total ADB assistance. From 1970 to 2007, ADB's total loans and Asian Development Fund (ADF) grant assistance amounted to about $129.5 billion. Of this, 5.8% only assisted the education sector. (Appendix 1 presents the combined distribution of loans and ADF grants by subsector.) Basic education and education

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[1] ADB. 2008. *Education and Skills: Strategies for Accelerated Development in Asia and the Pacific.* Manila.
[2] ADB. 2003. *Education. Our Framework, Policies and Strategies.* Manila.

sector development received the largest and second largest shares, respectively, in 1990–1999, while in 2000–2007, education sector development and secondary education received the largest assistance. Total other non-ADF[3] and technical assistance (TA) grants amounted to $2.5 billion, about 8.1% of which was provided to the sector. (Appendix 2 presents the distribution of grants and TA by subsector.) The basic education subsector received the largest share in 1990-1999 but was second to secondary education in 2000–2007. The latter can be attributed to large grant assistance to the secondary education subsector as part of post-tsunami emergency grant assistance. Lending modalities used in the education sector have expanded from project loans to include sector development programs and participation in sectorwide approaches (SWAps) employing both project and program lending.

C.   Evaluation Operations

6.   Project completion reports are available for 92 projects and, as of 30 September 2008, 36 had been evaluated. The evaluated projects amounted to about $1.8 billion of total investment by ADB, governments, and cofinanciers, with ADB financing about $1.0 billion. Of these, 12 projects were evaluated from 2000 through 2007 (see Appendix 3), comprising the scope of this synthesis—two projects in primary education, two in secondary education, three that assisted both primary and secondary education, two in TVET, and three in postsecondary and higher education. These projects were approved in 1988–1996.

III.   IMPLEMENTATION EXPERIENCE AND PERFORMANCE RESULTS

A.   Implementation Experience

1.   Project Design

7.   The evaluated education projects addressed the general concerns of improving access to schools, particularly by disadvantaged groups; improving the quality of schooling and learning; increasing internal and external efficiencies; and institutional capacity strengthening and development. At the time they were prepared, the evaluated projects were found to have been generally relevant and consistent with the needs and priorities of their respective countries, as articulated in national and sectoral development plans and strategies, and with ADB's overarching goal and the respective ADB country strategies and programs. Notable features in the designs of the evaluated projects, together with their strengths and weaknesses, are discussed below.

8.   **Basic Education.** In primary education, the evaluated projects generally aimed at improving access, particularly for girls; improving the quality of instruction; increasing efficiency (retention rates); and upgrading the management and supervision of the primary education subsector. The assessments of the different project designs are mixed.

9.   The project for girls' primary education in Pakistan was designed to involve parents and local communities to improve girls' school participation. It supported the concepts of a community model school as a resource center, and learning coordinators as catalysts for improvement – concepts that were considered appropriate at the time of the design. However, implementation of the concepts did not fulfill expectations: The number of schools that learning coordinators had to cover was large, and teachers wishing to become learning coordinators were lacking. In shifting teaching methods towards hands-on activities and a "learning-by-doing"

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[3]   "Other grants" are financed from sources other than the ADF, e.g. Japan Fund for Poverty Reduction.

approach, the provision of teacher guides, learning modules, library books, supplementary reading materials, and teaching kits proved effective. This assistance could have been more effective for students from poor families if they had been provided free textbooks. The implementation arrangements of this project were complex and involved the management and coordination of various levels of government, not only at the national level, but also at the provincial and local levels, and different committees. Project implementation highlighted the difficulty of implementing a national project in Pakistan that includes individually implemented provincial components.

10.   The design of the Bangladesh primary education project supported the national goal of universal primary education and the eradication of illiteracy, and aimed at improving access and equity, quality, efficiency, and institutional development. Given time and financial constraints, the government prioritized access and equity as its goal for this project, and quality and efficiency were to be addressed in subsequent programs. The evaluation noted that this decision resulted in a trade-off, with the quality of education being observed to be poor at the time of evaluation, but it helped achieve the main project objective of access and equity.

11.   The education sector project in Mongolia comprised both a policy-based loan and an investment loan, the first time the sector development program loan modality was prepared and implemented by ADB in the education sector. The policy-based loan aimed to improve the fiscal viability of the education sector by, among others, rationalizing education facilities; reducing staff; and promoting cost-recovery and private sector provision of education. The investment loan complemented this by strengthening education management, increasing the effectiveness and efficiency of secondary education, and improving the quality and coordination of higher education. Addressing underutilization and high recurrent costs for heating and administration, among others, the program planned to rationalize schools through the development of "complex schools" and "regional central schools." Implementing this required the support of various groups. The project addressed this by supporting renovated "complex schools" with improved management, incentives for teachers, better teaching equipment and textbooks, and in-service teacher training. In the process, it generated visible improvements that helped convince some of its skeptics. The program included staff rationalization, which was highly relevant during project preparation and was successfully implemented. However, at the time of evaluation, it was assessed to be less relevant, as some viewed it as unnecessary, given that the demand for teachers later rose and that the most capable and experienced staff were given the opportunity to leave.

12.   The objectives of the Cook Islands' education development project were consistent with the government's education sector objectives of increasing equitable access and improving the quality and efficiency of the education system. However, some of the project's components and activities were found to have had little relation to the project objective. The evaluation indicated that a comprehensive education sector strategy and action plan, which was absent, would have helped provide greater focus to the project's components.

13.   The junior secondary education projects in Indonesia and Nepal both aimed at improving the quality of lower or junior secondary education by supporting teacher training, developing new curricula, improving student assessment, providing materials and equipment, constructing school facilities, and improving education management. A difference in the approaches to teacher training is noted between the two projects. The Indonesia project provided substantial teacher upgrading activities, which were successfully implemented and contributed to improving education quality. Teacher training activities were implemented according to a prepared and approved teacher training master plan. In the case of the Nepal secondary education project,

the lack of a viable teacher training plan was noted. Many schools were unwilling to send teachers to participate in long-term training. A plan could have examined the deployment of substitute teachers while the regular teachers were on long-term training. In response to this shortcoming, the project replaced long-term training with shorter programs.

14. **Higher Education.** The evaluated projects in higher education aimed at improving the quality and efficiency of postsecondary and higher education in specific subject areas at selected educational institutions, mainly by developing academic programs, providing fellowships to academic and support staff, constructing and upgrading school facilities, providing learning materials and equipment, strengthening management, and establishing networking arrangements among universities.

15. The projects in Indonesia addressed the needs of economic sectors, e.g., fisheries, agriculture, and business management, by providing facilities, equipment, books, materials, and advanced academic training for faculty members. The evaluation of the marine science education project in Indonesia assessed its project design to have not addressed an identified major issue in higher education: the need to improve the quality of the teaching and learning process. Formal training in teaching was not considered: While professors were provided graduate academic training, it did not prepare them for all of the three professorial activities in Indonesia, namely teaching, research, and community service.

16. In addition to addressing the needs of specific sectors, the Papua New Guinea higher education project also addressed the needs of teacher education and distance learning. However, its design was assessed to be weak in view of the lack of linkages in the project between higher and school education, which resulted in the school education system not benefiting from project outputs; and the lack of coordination with key development partners in the sector, which resulted in piecemeal activities.

17. The design of the Bangladesh distance education project, which provided assistance mainly to the Bangladesh Open University (BOU), focused more on providing civil works, furniture, equipment, and vehicles than on staff development, which in itself also placed greater emphasis on developing technical capacity rather than institutional capacity. The evaluation noted that no needs assessment was undertaken during project preparation for the programs offered by BOU. However, one was conducted later, before implementation commenced, and, as a consequence, many of the programs planned at appraisal were replaced by more relevant ones.

18. **Technical and Vocational Education and Training.** The evaluated projects in TVET assisted postsecondary technical education, mainly to improve their relevance and quality. They included the provision of facilities, equipment, and materials; development of skills standards and training curricula; and training of teachers and trainers.

19. In Indonesia, the agricultural technology education project aimed at improving the quality of agricultural education and its relevance to the agriculture sector by introducing practical skills-based courses and improving the hierarchical structure of agricultural education institutions to match their responsibilities and research mandate. While the project expanded the enrollment capacity in agricultural technology education, and provided better trained teachers and modern facilities, the evaluation observed weaknesses in the project design. The demand for places in the project-assisted schools during project preparation could have been better estimated to avoid subsequent underutilization. The project provided hardware and software inputs, e.g., civil works, equipment, and training of teachers and principals, but did not establish effective school

management systems that could have improved the utilization of project-assisted schools. Production units were established to develop entrepreneurship among students and generate additional funds to support operation and maintenance (O&M) of schools. However, the project design did not include allocations for employing full-time managers with business experience and for the establishment of sound management systems in all the units. This contributed to the subsequent underutilization of many of the units and to the loss of start-up capital by some.

20.   The Nepal TVET project focused on expanding the supply of skilled workers in the agriculture, construction, and health sectors; improving the quality and relevance of training programs; and TVET institutional development. It also recognized the role of private training providers. The project design focused not only on hardware, but also on software. The project aimed to strengthen the institutional capacity of the central TVET institution and was able to support the establishment of offices to undertake training needs assessments and to accredit private training providers.

2.   Physical Achievements

21.   The evaluated projects generally met the physical output targets to which they aspired at appraisal, and several exceeded some of their targets. For various reasons, some projects experienced shortfalls in their achievements. In the Cook Islands education development project, the number of teachers trained in several in-country teacher training areas fell short of the targets because implementation was delayed and a decision was later taken to align the country's secondary education curriculum with that of New Zealand. However, the evaluation opined that, in combination with the outputs of other project components, the trained teachers could still contribute to achieving the project objectives. The Nepal secondary education project met its appraisal target of developing curricula for grades 6–10, but the delayed recruitment of international consultants meant that not all curricula could be disseminated and implemented. Weak coordination between the executing agency and the agency responsible for training private school teachers contributed to the inability of the Indonesia agricultural technology project to implement one of its innovative activities, which was the planned training of private school teachers to support the private provision of vocational education. The number of staff who attended and later completed fellowship programs in Papua New Guinea's higher education project was less than the appraisal target. The shortfall was attributed to several reasons, including a delay in starting the programs such that some candidates availed of other fellowships; a freeze on staff recruitment, which restricted the replacement of staff who left for fellowships; the lack of an in-country staff development coordinator; and the lack of suitable programs locally.

3.   Project Cost

22.   All of the evaluated projects cost less than the appraisal estimates by the time project accounts were closed. On average, the projects cost 85% of the appraised cost (see Appendix 4, Table A4.1). Except for one evaluated project, the actual amounts of loans disbursed were less than appraisal estimates. The significant depreciation of some currencies against the United States (US) dollar, particularly during the Asian financial crisis in 1997, generated loan savings for some projects, e.g., Indonesia's higher education project and Pakistan's girls' primary education project. Nepal's TVET project benefited from the appreciation of the Special Drawing Rights, in which its loan was denominated; the US dollar equivalent of the amount eventually was larger than the equivalent amount at loan approval. In some projects, cofinanciers joining during implementation to partly finance ADB-funded project activities led to the cancellation of some ADB loan amounts. Delays in the recruitment of consultants, which led

to downscaling of their services, also contributed to some projects spending less on consulting services.

4. Project Implementation Period

23. After being declared effective, the evaluated projects were implemented over an average period[4] of 6.4 years, ranging from 5.7 years (Mongolia and Cook Islands' projects) to 7.6 years (Papua New Guinea higher education and Nepal TVET projects). All but one (Indonesia higher education) of the evaluated projects were completed beyond the implementation period expected at appraisal. Time overruns ranged from 10% to 27% (see Appendix 4, Table A4.1). The projects with the longest variations in implementation were the Pakistan primary education project, the Nepal TVET project, and the Papua New Guinea higher education project.

24. The longer than expected project implementation periods were attributed to a number of factors, including delays in the appointment of and frequent changes in project leadership or management, delayed establishment of local project offices, delayed recruitment of consultants, large number of subprojects to be appraised, and unfamiliarity with the technical specifications of equipment to be procured. When land was to be acquired for project activities, litigation also contributed to implementation delays. Where there was cofinancing, delays in signing grant agreements also caused implementation delays.

5. Organization and Management

25. The management and organization of the evaluated education and TVET projects varied across the countries. Typically, a central project implementation and management group was established for each project. When project activities were spread out across the country and/or government administration was decentralized, local project implementation groups were also established.

26. The borrowers for the 12 evaluated education and TVET projects generally performed satisfactorily during project implementation. However, some were observed to have not provided sufficient supervision early in the implementation period, which contributed to delays. In these instances, borrower performance did improve later in the implementation period. Some project executing agencies were observed to have stayed the course in implementation despite changes in government or an unstable political situation. Some of the challenges faced during implementation included frequent staff turnover early in the implementation period, weak coordination across multiple government agencies and levels of government, central procurement unsuitable to local needs, and too large a membership in project steering committees.

27. ADB performance was rated satisfactory for most of the projects. In the Mongolia education sector assistance, ADB performance was rated "highly satisfactory," while the rating was "less than satisfactory" in the Pakistan girls' primary education project. At least half of the evaluation reports noted insufficient ADB project supervision early in the implementation period, which was made up for after the midterm review. The evaluation of two projects noted that the stable composition of ADB review missions and extensive experience and knowledge of the country contributed to highly satisfactory ADB performance. For projects that were geographically dispersed or complex, longer supervision missions were noted by the evaluations.

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[4] The implementation period is calculated as the elapsed time between the dates of effectiveness and completion.

B. Performance Results

1. Inclusive Development

28. **Girls' Participation.** The projects supported girls' education by working with communities, recruiting more female teachers, revising curricula and learning materials for improved gender perspective, and building more schools closer to the target populations. In countries where girls' education lagged behind that of boys, several achievements were noted.

29. The promotional campaign of the Pakistan girls' primary education project contributed to changing attitudes such that girls' education was more readily accepted in the project communities. By the time the project was evaluated, some families not only accepted educational opportunities for girls but also pursued them. Project schools were also observed to have had greater acceptance for coeducation than nonproject schools, mainly in kindergarten and the lower grades. Enrollment of girls in project schools increased almost four times during the 10 years from the time the project started, more than twice the national growth rate. Nevertheless, the girls still had a high dropout rate, and a high proportion were still out of school. The project's beneficiaries were also predominantly from poor families.

30. The Bangladesh primary education project supported the recruitment of more female teachers by lowering their academic requirements. At the time of evaluation, gender parity in enrollment in primary classes had been achieved. The Nepal secondary education project developed special training courses for female teachers, sensitized teachers to gender issues, scrutinized textbooks to avoid gender bias, and gave preferential treatment to schools with higher girls' enrolment and increased recruitment of female teachers. However, despite these interventions, girls' comprised less than half of secondary education enrollment and only a third of those who passed the school leaving examination. While the Nepal TVET project did not intend to address gender issues, it provided females greater access to project schools; females who passed the written entrance exams were implicitly considered as having passed the interview.

31. **Disadvantaged Groups and Rural Residents.** The evaluated projects did not generally target specific disadvantaged groups, but some targeted rural areas by developing activities to serve their needs or by locating project facilities and interventions there. The Nepal secondary education project provided assistance to schools in poor rural areas. The sampled beneficiary students of the Bangladesh distance education project reflected a high proportion coming from rural areas (60%). The Indonesia agricultural technology education project provided access in the outer islands of the country. The majority of the students were from middle- or low-income families, including some students from poor families. Over half of the sampled students of the Nepal TVET project schools were from rural areas, more than the proportion found in private schools. Through its skills testing and certification program, the project also benefited primary and secondary school dropouts, who had no access to formal training but were able to gain skills certification.

32. Addressing regional disparities, the Indonesia higher education project focused on increasing access and improving the quality of regional universities. This benefited students in less-developed parts of Indonesia, increasing the employment rates of the graduates of project-supported universities. The higher education project in Papua New Guinea supported a scholarship scheme to improve equity in access; however, it did not impact much on equity indicators, as the selection criteria were based on grade point averages, and provision was made only for expenses, and not for tuition fees.

33.   Indigenous community concerns were addressed by the Cook Islands' education development project. The project supported the development of a language policy to preserve the Maori language and identified the related requirements to improve the curriculum and upgrade teachers. The policy provided guidance to schools in developing and implementing school language plans adapted to local needs.

34.   **Community Participation.** Community participation was an important feature in the implementation of some projects. The preparation of the evaluated projects generally involved consultations with communities. The establishment of school management committees and parent-teacher associations in primary education projects was an important step for strengthening them and ensuring improvements in education quality over the long term. This was important in Pakistan, as the linkages between parents/communities and schools were still weak. In Bangladesh, the school created a sense of community, as it became the center of both school and nonschool activities. The civil works activities of the Cook Islands' education development project mobilized the communities for school management and funding support, which generated positive community impact.

35.   **Mitigating Potentially Negative Project Impacts.** The Mongolia education sector assistance included a staff rationalization plan that led to the redundancy of some teachers. In this connection, the project prepared and implemented mitigation measures that included redundancy payments and provision of counseling services and training. Of the 70 affected teachers sampled by the evaluation, all but 5 had volunteered for redundancy. The volunteers left their positions for various reasons, which included expanding income sources by engaging in trade and business, needing the money for children's education expenses, and health problems. The redundancy payments were beneficial to 99% of the affected staff; however, 4 years later, only about half of the sampled affected teachers thought that the policy was a good one and a good option for them to have taken, as the demand for teachers had later increased.

2.   Institutional Development Impacts

36.   Institutional development activities were generally included in the design of the evaluated education and TVET projects to address low capacities in planning, managing, implementing, and monitoring education-related activities, systems, and institutions from the national level (ministries) to the local level (schools). The projects provided staff development, established new organizational structures, and developed support systems, including those for management information and for assessing students. In the course of project implementation, policy dialogue was pursued to effect some institutional changes, including increased staffing and establishment of new offices where needed. The impacts of these activities were generally rated from "moderate" to "significant."

37.   The development of management information systems, including education management information systems, was supported by most of the evaluated projects in primary and secondary education. However, at the time of evaluation, the results were mixed. The envisaged systems were operational in three projects, but budgetary support was lacking in one of them, and the system had not been operationalized in two others. In one of the latter, the envisaged monitoring system was not appreciated such that the monitoring and training specialists were not hired.

38.   Student assessment systems were improved in two projects. In the Cook Islands education project, a new system was developed that focused on cognitive and social competence, moving beyond the factual recalls and using standards rather than norm

referencing. While the qualification system was changed, the project-system still became the basis of its replacement. The Nepal secondary education project reformed the secondary school leaving student assessment system to ensure uniformity and objectivity, and to improve efficiency in scoring. Evaluation survey results found the new system to be useful. However, the agency administering the examinations found itself overstretched, having been assigned with more responsibilities but no additional recurrent budget.

39.   The evaluated projects in higher education provided assistance to enhance the capacities of project institutions to deliver programs in various subject areas. With the large number of overseas and in-country scholarships for graduate education and short-term training in the Indonesia higher education project, a critical mass of lecturers was created who could strengthen teaching and research in their respective universities and contribute to producing better quality graduates. The evaluation found that most of the lecturers used the knowledge and experience they gained to improve university teaching and research and to produce better-quality graduates. In the case of the Papua New Guinea project, a critical mass of upgraded and trained staff was not achieved. The number of recipients and completers of fellowships was low. In addition, while the project supported the reorganization of the office dealing with higher education, it was hampered by budget and staff constraints. The impact on institutional development of the Indonesia marine science education project was limited by the high incidence of absences of faculty, administrators, and students; underutilization of project facilities; inability of fellowship recipients to apply what they had learned, as they were still doing the same work they had been doing earlier; and lack of cooperation in research and teaching among project universities.

40.   The importance of institutional capacity development was noted in the evaluation of the Bangladesh distance education project. The project design could have focused more on institutional capacity development: At the time of evaluation, the institutional capacity of the recipient university was found to be weak due to inefficient management, especially in terms of utilizing operations staff. Staff development under the project was largely in technical areas, e.g., pedagogy, curriculum development, instructional materials design, multimedia production, and student support services, rather than in institutional capacity building, e.g., management and planning of distance education delivery; and financial, budget, and human resources management. The project's policy impact at the time of evaluation was also assessed to be weak: While the BOU secondary school certificate was recognized to be equivalent to that in the formal system, the same was not true for its certificates, diplomas, and degrees.

3.   Overall Assessment of Evaluated Projects

41.   Nine of the 12 evaluated projects in the education and TVET sector were successful. The projects were also mostly rated "relevant," "effective," and "likely to be sustainable;" only about half were evaluated as "efficient." Appendix 4, Table A4.2 presents more information on the evaluated projects, including the evaluation ratings.

42.   **Relevance.** Eight of the 12 projects were rated "relevant" or "highly relevant." The Pakistan girls' primary education project was rated "less relevant." The evaluation assessed its design as too ambitious, and thus it did not achieve some of its purposes. The evaluation also took a different view of the priorities that should have been addressed by the project, e.g., shelterless schools and inclusion of kindergarten classes to increase access for girls who had to care for younger siblings. When it was being prepared, the Nepal TVET project was consistent with both the government's and ADB's strategies. However, over time, the focus of both strategies shifted to basic education. The higher education project in Papua New Guinea was

consistent with both the government's and ADB's strategies. However, the evaluation assessed its design to be weak, partly due to its lack of coordination with major development partners in education in-country, lack of focus on teacher education, and lack of a comprehensive view of improving teacher quality.

43. **Effectiveness.** Ten of the 12 evaluated projects were rated "efficacious" or "effective," while two were "less effective." The projects rated as effective achieved their physical output targets and accomplished their policy objectives. The projects in Indonesia were found to be well managed following the Asian financial crisis. The Pakistan girls' primary education project was rated "less than satisfactory" in efficacy: While it was able to provide new student places, the quality of education did not see significant improvement. It was also not able to achieve other envisaged outcomes, e.g., bring down class sizes and eliminate multigrade teaching. The higher education project in Papua New Guinea was rated "less effective," as observed improvements in the outcome indicators could not be fully attributed to project interventions, but rather to the combined efforts of all development partners, including ADB, that were providing concurrent assistance.

44. **Efficiency.** Seven of the evaluated projects were deemed to be "generally or highly efficient," while the other five were "less efficient." The projects that were rated less efficient were observed to have had underutilization of constructed schools and facilities and purchased equipment, construction unit costs higher than an equivalent activity of a development partner, long implementation delays, and low student graduation rates in assisted institutions. The sources of inefficiency in staff development activities included low proportion of staff completing their fellowships, and the absence of measures to ensure reimbursement by fellowship recipients who did not return to their institutions. Of the five "less efficient" projects, three were in higher education.

45. **Sustainability.** The majority (8 of 12) of the evaluated projects were assessed as "likely to be sustainable." For three of the projects rated "less likely to be sustainable," the availability of resources for their long-run operation was assessed to be uncertain. The sustainability of the Bangladesh primary education project was rated to be "less likely," as the main source of financing for primary education was the government budget, the fiscal state of which was then assessed as unlikely to improve. Three of the "less likely to be sustainable" projects were in higher education. The sustainability of the impact of two higher education projects was rated to be "less likely" in view of the dependency of the assisted universities on government support. Some of the universities were assessed to be unable to appropriately increase tuition fees. Improved sustainability would be dependent on the assisted universities' own financial capacities.

IV. LESSONS IDENTIFIED AND ISSUES FOR THE FUTURE

A. Lessons Identified

46. The evaluation studies identified many lessons that should be taken into consideration when preparing assistance strategies, and designing and implementing specific assistance in the education sector.

1. Preparing Assistance in the Education Sector

47. **Sector Assistance Strategy.** Sustained development for improving access and quality in the education sector takes a prolonged period of time, not only because of the generally large

number of students to be served, but also due to the sociocultural changes required, the number of stakeholders involved, and education's multifaceted nature. In this context, a realistic strategy for achieving development impact in education is to undertake a long-term commitment of assistance with a hierarchy of objectives to guide priorities and project foci, which, in turn, should be guided by a sector strategy and action plan for overall sector development. Where a strategy and an action plan are not available, the scope of project assistance should be adjusted to accommodate their development.

48.   A single intervention will not be sufficient to help achieve sustained development impact: a series of overlapping projects with consistent basic objectives, over 10 years or more, is needed. As demonstrated by the Pakistan primary education project, aiming to achieve improvements in both access and quality in a challenging environment can result in achieving neither. If the Pakistan project had prioritized one objective over the other, e.g., improving access and equity over improving quality—like the implicit prioritization of access and equity over quality in the Bangladesh primary education project—with a view to preparing follow-on assistance focusing on the other objective, the likelihood of achieving the prioritized objective would have been greater.

49.   **Project Design.** With a view toward improving the utilization of school facilities, preparing better forecasts of demand for primary and secondary schools and for TVET and higher education programs is necessary. Stakeholder consultation, if not participation, can facilitate this process. Information from government forecasts and static data should be augmented by factors influencing private decisions on school choices, and should take into account regional variations in population density, competition from other schools, and labor market demand. The Pakistan girls' primary education project could have benefited from better forecasts of girls' dropout rates, which turned out to be higher than expected and the main reason for the underutilization of project-assisted schools. Had regional variations been taken into account in designing school sizes in the Indonesia agricultural technology education project, underutilization in less populated areas could have been potentially avoided.

50.   Project design should strike a balance between the hardware and software inputs. There should not be too much emphasis on hardware investment, particularly where management and technical capacities are weak. BOU could have benefited from more capacity development to avoid subsequent delays in the delivery of course materials to students and tutors and in the publication of examination results, which frustrated both its students and tutors.

51.   Providing a standard investment package for all project schools may simplify project implementation and obtain better terms for procurement, but this may not match the needs of individual schools and thus lead to idle facilities and additional costs of maintaining such facilities. In the Indonesia agricultural technology education project, the requirements of the project schools varied, as there were large regional variations in the country. However, the investment package for the project schools was standardized and did not allow for adjustment to specific needs, which later contributed to their underutilization.

52.   The introduction of reforms may face skepticism, if not opposition. To overcome skepticism, project design may consider providing a complementary package of interventions that will show visible improvements associated with the reform. This approach helped the Mongolia education project win over skeptics of its complex schools concept.

2. Improving the Relevance of Education Assistance

53. **Employment Orientation.** Skills to be imparted in TVET programs should be relevant to market needs to improve the employment chances of graduates. To prepare better forecasts of potential enrolments in TVET and higher education programs, studies and surveys assessing the market demand for future graduates should be undertaken. This should include close consultation with key enterprises that are potential employers of graduates. To ensure their continued relevance, updating TVET and higher education programs should be regular activities and should involve employers. Establishing strong linkages with relevant private enterprises that fund research and provide on-the-job training would be a good way to improve the relevance of curricula and the employability of graduates. Better analyses and projections of labor market demand could have helped shape the study programs of the Indonesia marine science education project, which could have subsequently improved the employability of its graduates in their field of study, rather than in related fields.

54. **Education of Girls and Disadvantaged Groups.** Evaluation results indicate that to reach girls and/or disadvantaged groups, targeted assistance yields positive outcomes. Girls were more likely to attend primary and secondary classes if (i) schools were nearer their homes, (ii) there were increased security (e.g., a boundary wall), and (iii) the family could afford school-related expenses. Involving parents in school activities also contributed to improving girls' school participation. Affirmative actions, e.g., lowering employment requirements, help raise the number of female teachers. In the Pakistan primary education project, while improvements in quality were not achieved, increased girls' enrollment was achieved through the specific measures it implemented. The Indonesia secondary education project succeeded in reaching out to those living away from regular schools, the poor, and girls by supporting schools and distance learning that took into consideration their needs and the constraints they faced in attending classes.

3. Improving the Quality of Education

55. **Teacher Training.** An important part of improving education quality is improving the quality of teachers, which includes teacher training. From the evaluation results of two projects, a teacher training plan should be prepared before teacher training commences. The plan should address not only the training activities, but also the availability of replacement teachers, if required, while the regular teachers are undergoing training.

56. While mass training of teachers is necessary, evaluation results point to the need for having institutionalized, continuous professional development of teachers. Training should move away from one-time, individualized programs to regular, continuous professional development. Staff development activities should be linked with organizational development, management systems, plans, and sufficient resources. This would recognize that successful staff development depends on policies, needs analyses, and action planning, and would provide evaluation for feedback and further development. Short but regular training is more effective than longer training programs with long intervals between programs. In follow-up to training programs, evaluation observations indicated that refresher courses and classroom monitoring of teaching are advised. To improve the impact of training, incentive schemes may also be needed for teachers to fully utilize their skills.

57. Teachers in higher education are expected to teach and conduct research. Evaluation results indicate that advanced academic training and research, while appreciated by the immediate beneficiaries, do not necessarily provide effective preparation to improve teaching

and learning quality, nor to improve teaching and research management. Training in teaching and training in management are also important. To realize greater impact of academic and research training, a facilitating environment for research and teaching innovations should be available. Staff who obtained advanced degrees with support from the Indonesia marine science education project returned to the same positions and were unable to fully apply their newly acquired knowledge and skills. Staff were doing the same work as they did before they obtained their advanced degrees.

58. **Maintenance of Facilities and Equipment.** A large amount of ADB assistance, particularly in higher education and TVET, has gone to civil works and equipment. Results from the evaluations indicate that more needs to be done to adequately address O&M requirements of project-supported facilities and equipment, and thus avoid delays in required repairs and early deterioration. It has been observed that the cost of school maintenance is not particularly high if conducted regularly and promptly. Recipient institutions should be required to prepare annual preventive O&M plans in accordance with manufacturers' recommendations and to allocate sufficient annual recurrent budget for O&M activities. However, project experience also indicates that more effective measures are needed to establish reliable funding sources for school maintenance after project completion, e.g., setting aside a fixed amount from the government budgetary allocation or student fees to establish a maintenance fund.

59. Some projects in TVET have included the creation of production units to generate revenues for increased sustainability. The evaluations indicated that not all have been successful in generating sizable revenues, and some are in financial difficulties. Production units are more likely to succeed when they are provided with physical inputs, seed capital, proper management systems, and managers with business experience.

4. Capacity Development

60. **Institutional Capacity Development.** Developing capacity in agencies, institutions, and schools is crucial for sustaining project-assisted activities and systems. For weaker or new offices and institutions, it is advised that a comprehensive package of institutional capacity development, which balances inputs for technical capacity development with those for management capacity development, be prepared. At the same time, to create an institutional development impact, a critical mass of trained staff should be considered.

61. The length and content of international training should be carefully considered and should not be just a few weeks' study tour to different locations in one trip. Exposure to different approaches, including through wider international scholarly forums, may facilitate the adoption of new ideas and approaches and constructive change from within. Where project activities include sending people for overseas fellowships, the results from the evaluated projects indicate that the following should be addressed to help achieve satisfactory outcomes: assignment of a person dedicated to planning and implementing the training plan; rationalized selection of fellows; supervisor support of fellows; and preparation of fellows, including an appropriate level of language training. Further, to improve the efficiency of training, an enforceable agreement for recipients to return to work in their areas of training for a few years is needed.

62. **Monitoring and Evaluation.** While the results of activities to develop management information systems in the evaluated projects were mixed, they offer several lessons that could be employed to improve project monitoring and evaluation (M&E) and its utilization. Experiences from the evaluation studies and project implementation highlight the importance of quantifying the desired outcome/target for each project objective/project outcome and impact; this would

provide clearer guidance during project implementation and impact assessment. For successful M&E, the following lessons were identified: (i) allocate sufficient staff resources for more attention to the use of data for educational and developmental purposes; (ii) establish systems and methods before project startup to collect essential baseline data and to monitor early project activity; and (iii) pay greater attention to the collection and use of data for feedback and maintenance of what is working well. To help ensure their utilization and sustainability, M&E systems should be integrated into the normal operations of project institutions and linked to central agencies' management and information systems. Further, M&E systems should include processes to document and disseminate good practices and facilitate their replication.

63.   School management committees and parent-teacher associations have an important role to play in improving the quality of education. These contribute not only to developing a sense of community to support school activities, but also to mobilizing the community to monitor changes in education quality (e.g., teacher absenteeism and school management) and raise additional school resources where necessary, among others.

5.   Lessons in Implementation

64.   To improve the likelihood of success in project implementation, several lessons were identified in the evaluated projects, some of which are being addressed by ADB's project readiness filters in its current project processing process. The project implementation lessons include (i) timely staffing of a project implementation or management unit with a sufficient number of qualified and experienced personnel, (ii) continuity in the term of the project director, (iii) timely recruitment of consultants, (iv) satisfactory performance of consultants, and (v) assignment of ADB project officers having extensive country knowledge and experience.

65.   Where several agencies are involved in project implementation, timely coordination is important, and a coordination committee should be formed early in implementation. At the same time, the results indicate that implementation arrangements requiring coordination across various levels of government or across provinces and districts are complex and are likely to lead to delays. In small countries, careful consideration should be taken in establishing separate project implementation or management units, as the available number of experienced and/or qualified personnel in-country may be limited.

B.   Key Issues and Implications for the Future

66.   Following the development impact achieved by the evaluated projects and the evaluation results obtained, several key issues that have implications for future assistance to the education sector are highlighted.

67.   **After Improving Access to Primary Education.** Progress has been achieved in improving access to primary education: More children are now attending and graduating from primary school; enrollment rates, particularly for girls, have increased. This, then, presents a challenge for the next level of education, secondary education, to provide enough places for the increased number of primary school completers.

68.   At the same time, it is still the case that not all children enroll in primary education. Governments have to do a better job addressing the education and training needs of disadvantaged and hard-to-reach groups, including developing targeted assistance. In addition, the focus on improving access has been achieved, to some extent, by prioritizing it over quality

improvement. This implies that another item on the agenda is the improvement of education quality with a view toward raising pass and graduation rates and lowering repetition rates.

69.   **Facilitating Private Provision.** To serve hard-to-reach and disadvantaged groups, expand secondary education access, and provide TVET programs, nongovernment and private providers may be more efficient than government providers. Thus, governments need not take on all the responsibilities for providing education and TVET programs, and should encourage the nongovernment and private sector to take on more of this role. Governments can then increasingly coordinate and facilitate education activities in the country, and monitor and supervise the quality of education and training provided by the private sector. However, an appropriate framework for facilitating private sector participation and public-private partnerships in education needs to be in place.

70.   **Coordinating Assistance.** Given limited public sector resources, expanding the provision of secondary education and sustaining the development of primary education mean that assistance from development partners remains important. The challenge for development partners, including ADB, is to improve the coordination of their assistance toward achieving greater development impact. Program-based approaches, including SWAps, should be considered where appropriate. In this context, the role of a sector strategy and action plan to bring coherence and consistency to the programs of all development partners is highlighted. On the part of ADB, this could potentially mean participation in more SWAps and increased use of program lending in its future assistance in the education sector.

71.   **Ensuring the Relevance of TVET Programs.** The challenge of ensuring the relevance of TVET programs to improve the employment chances of their graduates remains. TVET curricula must be geared toward producing graduates with the appropriate skills and knowledge required by the labor market. TVET curricula need to be regularly reviewed and updated for continued relevance to market demand. Sufficient linkages of education and training institutions with employers and private enterprises need to be established and maintained, as these are crucial to the success of TVET programs.

72.   **Improving the Likelihood of Sustainability.** The evaluation of some of the projects raised concerns regarding their sustainability, particularly of project-assisted activities, facilities, and equipment. Some of the project-assisted institutions were viewed to be dependent on government support and unable to raise their own revenues, while others experienced shortfalls in resources for maintenance and repair as evidenced by facilities and equipment in poor condition. Institutions may thus need more capacity and policy development assistance to facilitate raising revenues, including by improving cost recovery, raising fees, establishing effective production units, and developing public-private partnerships. For O&M, reliable and adequate sources of funding should be identified or developed.

73.   **Improving Management and Governance.** Management and governance in the education sector of some countries remain a major issue. While some improvements have been achieved, school management and supervision systems are still weak, and teacher absenteeism rates remain at unacceptable levels. School supervisors are challenged by large numbers of schools, long distances, and other responsibilities. Monitoring by stakeholders, particularly parents and communities, will continue to be important; however, their capacities for monitoring inputs to improve education quality need to be regularly strengthened. Greater focus and assistance are needed to improve management and governance systems in the education sector, including reviewing potential overlaps or conflicts in institutional responsibilities;

continuing capacity development; and use of information and communication technologies, e.g., management information systems.

74. At the same time, better quality M&E processes are still needed, from project preparation to beyond project implementation. During project preparation, appropriate project performance indicators need to be identified, and baseline data must be collected. The establishment of effective education management information systems is still a challenge. More awareness-building of its importance is needed; and regular, adequate budget allocations are also required. Project M&E systems need to be integrated into the normal systems and procedures of project-assisted institutions and agencies, particularly after project completion to aid subsequent policy analysis and decision making.

75. **Decentralization and Delegation.** Some governments are decentralizing or delegating responsibilities away from the center to provinces, districts, or communities. Units away from the central government, however, often lack the capacity to manage, supervise, and implement education-related activities. Successful decentralization or delegation thus requires capacity strengthening of personnel in offices and agencies away from the center. Decentralization/delegation also has an implication for the stability of financial support received by schools: Financial allocations for project schools could vary by school, depending on the priority of district governments and their views on the contribution of project schools to local economies. Schools may then have to generate extra revenues.

ADB EDUCATION SECTOR LENDING AND ADF GRANT ASSISTANCE
Breakdown by Subsector and Region, 1970–2007

Period	Central & West Asia		East Asia		Pacific		South Asia		Southeast Asia		Total	
	Value ($M)	%	Value ($M)	%	Value ($M)	%	Value ($M)	%	Value ($M)	%	Value ($M)	%
A. 1970-89												
Basic Education	97.49	41.81	-	0.00	-	0.00	8.00	5.30	70.00	7.79	175.49	13.51
Secondary Education	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Tertiary Education	101.00	43.31	-	0.00	-	0.00	-	0.00	181.25	20.16	282.25	21.72
Nonformal Education	-	0.00	-	0.00	-	0.00	13.50	8.95		0.00	13.50	1.04
Technical Education, Vocational Training, and Skills Development	24.70	10.59	-	0.00	16.00	100.00	71.42	47.32	549.26	61.09	661.38	50.91
Education Sector Development	10.00	4.29	-	0.00	-	0.00	58.00	38.43	98.60	10.97	166.60	12.82
Total	**233.19**	**100.00**	**-**	**0.00**	**16.00**	**100.00**	**150.92**	**100.00**	**899.11**	**100.00**	**1,299.22**	**100.00**
B. 1990-99												
Basic Education	311.12	53.97	-	0.00	10.70	21.15	364.79	63.12	699.52	31.02	1,386.13	39.88
Secondary Education	118.00	20.47	-	0.00	-	0.00	50.60	8.75	550.55	24.41	719.15	20.69
Tertiary Education	-	0.00	-	0.00	19.90	39.33	62.00	10.73	438.92	19.46	520.82	14.98
Nonformal Education	-	0.00	-	0.00	20.00	39.53	45.25	7.83	182.20	8.08	247.45	7.12
Technical Education, Vocational Training, and Skills Development	62.50	10.84	-	0.00	-	0.00	40.33	6.98	384.20	17.03	487.03	14.01
Education Sector Development	84.80	14.71	15.50	100.00		0.00	15.00	2.60	-	0.00	115.30	3.32
Total	**576.42**	**100.00**	**15.50**	**100.00**	**50.60**	**100.00**	**577.97**	**100.00**	**2,255.39**	**100.00**	**3,475.88**	**100.00**
C. 2000-08												
Basic Education	312.54	57.19	-	0.00	7.00	12.67	699.50	58.50	346.80	40.17	1,365.84	50.82
Secondary Education	57.00	10.43	-	0.00	5.90	10.68	35.00	2.93	116.10	13.45	214.00	7.96
Tertiary Education	-	0.00	-	0.00	-	0.00	45.00	3.76	7.50	0.87	52.50	1.95

Nonformal Education	17.50	3.20	-	0.00	6.15	11.13	79.88	6.68	50.00	5.79	153.53	5.71
Technical Education, Vocational Training, and Skills Development	37.00	6.77	-	0.00	10.96	19.82	109.30	9.14	304.87	35.32	462.13	17.19
Education Sector Development	122.50	22.41	27.00	100.00	25.26	45.71	227.00	18.99	38.00	4.40	439.76	16.36
Total	**546.54**	**100.00**	**27.00**	**100.00**	**55.27**	**100.00**	**1,195.68**	**100.00**	**863.27**	**100.00**	**2,687.76**	**100.00**
D. 1970-2007 (total)												
Basic Education	721.15	53.18	-	0.00	17.70	14.52	1,072.29	55.72	1,116.32	27.78	2,927.46	39.23
Secondary Education	175.00	12.90	-	0.00	5.90	4.84	85.60	4.45	666.65	16.59	933.15	12.50
Tertiary Education	101.00	7.45	-	0.00	19.90	16.33	107.00	5.56	627.67	15.62	855.57	11.46
Nonformal Education	17.50	1.29	-	0.00	26.15	21.46	138.63	7.20	232.20	5.78	414.48	5.55
Technical Education, Vocational Training, and Skills Development	124.20	9.16	-	0.00	26.96	22.12	221.05	11.49	1,238.33	30.82	1,610.54	21.58
Education Sector Development	217.30	16.02	42.50	100.00	25.26	20.73	300.00	15.59	136.60	3.40	721.66	9.67
Total	**1,356.15**	**100.00**	**42.50**	**100.00**	**121.87**	**100.00**	**1,924.57**	**100.00**	**4,017.77**	**100.00**	**7,462.86**	**100.00**

ADF = Asian Development Fund.
Source: ADB Education Community of Practice.

ADB EDUCATION SECTOR OTHER GRANT[1] AND TECHNICAL ASSISTANCE
Breakdown by Subsector and Region, 1974–2007

Period	Central & West Asia		East Asia		Pacific		South Asia		Southeast Asia		Regional		TOTAL	
	Value ($'000)	%	Value ($'000)	%	Value ($'000)	%	Value ($'000)	%	Value ($'000)	%	Value ($'000)	%	Value ($M)	%
A. 1974-89														
Basic Education	175.0	14.4	-	0.0	-	0.0	199.8	3.8	-	0.0	-	0.0	0.4	2.3
Secondary Education	150.0	12.4	-	0.0	314.0	49.5	150.0	2.9	-	0.0	-	0.0	0.6	3.8
Tertiary Education	150.0	12.4	935.0	90.3	95.0	15.0	758.0	14.5	1,594.0	29.1	595.0	23.0	4.1	25.5
Nonformal Education	-	0.0	-	0.0	-	0.0	329.0	6.3	320.0	5.8	-	0.0	0.6	4.0
Technical Education, Vocational Training, and Skills Devt	739.2	60.9	100.0	9.7	225.0	35.5	936.0	17.9	2,953.7	53.8	1,226.0	47.4	6.2	38.2
Education Sector Development	-	0.0	-	0.0	-	0.0	2,855.0	54.6	618.0	11.3	764.4	29.6	4.2	26.2
Total	**1,214.2**	**100.0**	**1,035.0**	**100.0**	**634.0**	**100.0**	**5,227.8**	**100.0**	**5,485.7**	**100.0**	**2,585.4**	**100.0**	**16.1**	**100.0**
B. 1990-99														
Basic Education	3,500.0	38.1	500.0	9.7	805.0	25.5	5,907.0	24.4	11,262.0	32.8	1,980.0	32.1	24.0	29.1
Secondary Education	900.0	9.8	-	0.0	-	0.0	1,350.0	5.6	2,120.0	6.2	355.0	5.8	4.7	5.8
Tertiary Education	260.0	2.8	500.0	9.7	-	0.0	799.0	3.3	4,790.0	13.9	-	0.0	6.3	7.7
Nonformal Education	600.0	6.5	-	0.0	-	0.0	10,485.5	43.4	2,000.0	5.8	140.0	2.3	13.2	16.1
Technical Education, Vocational Training, and Skills Devt	1,010.0	11.0	-	0.0	500.0	15.8	4,070.0	16.8	7,576.0	22.0	1,646.0	26.7	14.8	18.0
Education Sector Development	2,925.0	31.8	4,155.0	80.6	1,853.0	58.7	1,577.0	6.5	6,621.5	19.3	2,045.0	33.2	19.1	23.3
Total	**9,195.0**	**100.0**	**5,155.0**	**100.0**	**3,158.0**	**100.0**	**24,188.5**	**100.0**	**34,369.5**	**100.0**	**6,166.0**	**100.0**	**82.2**	**100.0**
C. 2000-07														
Basic Education	5,250.0	35.3	2,150.0	28.9	1,770.0	28.0	1,550.0	10.0	7,195.0	13.7	920.0	20.4	18.8	18.6
Secondary Education	1,000.0	6.7	-	0.0	-	0.0	-	0.0	22,900.0	43.6	-	0.0	23.9	23.6
Tertiary Education	-	0.0	1,100.0	14.8	-	0.0	500.0	3.2	500.0	1.0	700.0	15.6	2.8	2.8

Nonformal Education	400.0	2.7	1,000.0	13.4	1,100.0	17.4	2,050.0	13.2	2,495.0	4.8	1,650.0	36.7	8.7	8.6
Technical Education, Vocational Training, and Skills Devt	1,000.0	6.7	1,500.0	20.1	1,766.0	27.9	6,030.0	39.00 %	1,275.0	2.4	-	0.0	11.6	11.4
Education Sector Development	7,240.0	48.6	1,700.0	22.8	1,690.0	26.7	5,330.0	34.5	18,118.0	34.5	1,230.0	27.3	35.3	34.9
Total	**14,890.0**	**100.0**	**7,450.0**	**100.0**	**6,326.0**	**100.0**	**15,460.0**	**100.0**	**52,483.0**	**100.0**	**4,500.0**	**100.0**	**101.1**	**100.0**

D. 1974-2007 (total)

Basic Education	8,925.0	35.3	2,650.0	19.4	2,575.0	25.4	7,656.8	17.1	18,457.0	20.0	2,900.0	21.9	43.2	21.6
Secondary Education	2,050.0	8.1	-	0.0	314.0	3.1	1,500.0	3.3	25,020.0	27.1	355.0	2.7	29.2	14.6
Tertiary Education	410.0	1.6	2,535.0	18.6	95.0	0.9	2,057.0	4.6	6,884.0	7.5	1,295.0	9.8	13.3	6.6
Nonformal Education	1,000.0	4.0	1,000.0	7.3	1,100.0	10.9	12,864.5	28.7	4,815.0	5.2	1,790.0	13.5	22.6	11.3
Technical Education, Vocational Training, and Skills Devt	2,749.2	10.9	1,600.0	11.7	2,491.0	24.6	11,036.0	24.6	11,804.7	12.8	2,872.0	21.7	32.6	16.3
Education Sector Development	10,165.0	40.2	5,855.0	42.9	3,543.0	35.0	9,762.0	21.8	25,357.5	27.5	4,039.4	30.5	58.7	29.4
Total	**25,299.2**	**100.0**	**13,640.0**	**100.0**	**10,118.0**	**100.0**	**44,876.3**	**100.0**	**92,338.2**	**100.0**	**13,251.4**	**100.0**	**199.5**	**100.0**

Source: ADB Education Community of Practice.
[1] "Other grants" are financed from sources other than the ADF, e.g., Japan Fund for Poverty Reduction.

EVALUATION REPORTS COMPLETED IN THE EDUCATION SECTOR
(as of September 2008)

A.   Project Performance Audit/Evaluation Reports

PPER No.	Loan No.	Project/Program Title	Approval Date	Actual Completion Date
1.	*1994 Education Synthesis*			
Bangladesh				
PE-321	L-373-BAN (SF)	Education Equipment Development Project	5 Dec 78	30 Jun 88
PE-323	L-510-BAN (SF)	Community Schools Project	21 Apr 81	30 Jun 88
PE-416	L-699-BAN (SF)	Secondary Science Education Sector Project (Part A)	23 Oct 84	30 Jun 91
Indonesia				
PE-208	L-244-INO	Surabaya Institute Technology Project	2 Dec 75	31 Dec 85
PE-341	L-356-INO (SF)	Senior Technical Schools Project	28 Sep 78	31 Dec 88
PE-345	L-488-INO	Second Senior Technical Schools Project	27 Nov 80	31 Dec 88
PE-368	L-402 (SF)/ 822-INO	University of Hasanuddin Project	7 Jun 79	31 Dec 88
PE-389	L-574/822-INO	Vocational Education Project	29 Jun 82	31 Mar 90
Republic of Korea				
PE-35	L-90-KOR (SF)	Vocational Training Institutes Project	23 Mar 72	31 Mar 78
Malaysia				
PE-285	L-476-MAL	Vocational Education Project	30 Oct 80	31 Mar 87
PE-402	L-673-MAL	Second Vocational Education Project	20 Dec 83	30 Sep 89
Nepal				
PE-201	L-315-NEP (SF)	Vocational Education Project	8 Nov 77	31 Dec 85
PE-423	L-599-NEP (SF)	Science Education Project	18 Nov 82	31 Dec 91
Papua New Guinea				
PE-307	L-551/552-PNG (SF)	Technical Education Project	26 Nov 81	31 Dec 88
Philippines				
PE-224	L-306-PHI	Engineering Education Project	1 Sep 77	30 Jun 84
Singapore				
PE-34	L-60-SIN (SF)	Ngee Ann Technical College Expansion Project	23 Dec 70	31 Dec 77
PE-206	L-486-SIN	Vocational and Industrial Training Project	27 Nov 80	30 Jun 86
Thailand				
PE-80	L-156 (SF)/157-THA	Vocational Education Project	4 Dec 73	31 Jun 80
PE-239	L-441-THA (SF)	Vocational Education II Project	14 Dec 79	31 Dec 86
2.	*2000 Education Synthesis*			
Indonesia				
PE-497	L-737-INO	University of Sriwijaya Project	21 May 85	Mar 94
Pakistan				
PE-428	L-419-PAK (SF)	Technical Teachers' Training and Polytechnic Institutes	29 Oct 79	Sep 92
PE-467	L-759-PAK (SF)	Science Education for Secondary Schools Sector Project	28 Nov 85	30 Jun 94

Philippines

PE-523	L-884-PHI (SF)	Agricultural Technology Education Project	8 Mar 88	30 Sep 95
PE-530	L-898-PHI (SF)	Secondary Education Development Sector Project	11 Aug 88	15 Nov 95

3.   2008 Education Synthesis

Bangladesh

PE-555	L-1026-BAN (SF)	Primary Education Sector Project	21 Aug 90	31 Jan 97
PE-607	L-1173-BAN (SF)	Bangladesh Open University Project	4 Aug 92	28 Sep 99

Cook Islands

PE-646	L-1317-COO (SF)	Education Development Project	22 Sep 94	31 Oct 00

Indonesia

PE-547	L-894/895-INO (SF)	Marine Sciences Education Project	14 Jul 88	28 Jan 97
PE-582	L-1050-INO	Agricultural Technology Schools Project	13 Nov 90	15 Oct 98
PE-609	L-1194-INO	Junior Secondary Education Project	19 Nov 92	5 Jun 00
PE-659	L-1253-INO	Higher Education Project	21 Sep 93	15 Jan 01

Mongolia

PE-701	L-1507-MON (SF)	Education Sector Development Program	19 Dec 96	2 Dec 99
	L-1508-MON (SF)		19 Dec 96	8 Nov 02

Nepal

PE-596	L-974-NEO (SF)	Technical Education and Vocational Training Development Project	28 Sep 89	23 Mar 98
PE-656	L-1196-NEP (SF)	Secondary Education Development Project	24 Nov 92	14 Nov 00

Pakistan

PE-550	L-977-PAK (SF)	Primary Education (Girls) Sector Project	26 Oct 89	30 Sep 96

Papua New Guinea

PE-685	L-1224-PNG (SF)	Higher Education Development Project	1 Apr 93	22 Jul 02

B. Technical Assistance Performance Audit/Evaluation Reports

TPER No.	TA No.	TA Title	Approval Date	Actual Completion Date
1. 2000 Education Synthesis				
TE-6	RETA 5323	Regional Seminar on Technical and Vocational Education	17 Mar 89	Jan 90
TE-8	TA 1667	Human Resources Planning	4 Feb 92	31 Mat 93
2. 2008 Education Synthesis				
	TA 2135-VIE	Financing of Social Services	12 Aug 94	30 May 97
	TA 2441-SRI	A Study on Financing of Social Services	10 Nov 95	5 Jun 97
	TA 2308-KAZ	Education and Training Sector Study	7 Mar 95	31 Dec 98
	TA 2872-KAZ	Strengthening Education Administration and Management at the Central and Local Levels	24 Sep 97	22 Dec 98
	TA 2879-KGZ	Strengthening of Education Planning and Administration	29 Sep 97	30 May 00

C. Impact/Special Studies

Report No.	Report Title	Date
1. 1994 Education Synthesis		
IE-09	Re-evaluation of the Engineering Education Project in the Philippines	Sep 92
IE-11	Re-evaluation of the Vocational Education Project in Nepal	Jan 93
IE-22	An Impact Evaluation Study of Bank Operations in the Education Sector in Indonesia	Oct 93
2. 2000 Education Synthesis		
IE-31	Re-evaluation of the Technical Education Project in Papua New Guinea	Nov 95
IE-51	Re-evaluation of the Vocational Education Project in Nepal	Dec 97
IE-52	Re-evaluation of the Technical and Vocational Education Project in the Philpines	Sep 98
IE-57	Re-evaluation of the Second Vocational Education Project in Thailand	Dec 98
IE-56	Impact Evaluation Study of the Secondary Science Education Projects in Nepal, Bangladesh, and Pakistan	Dec 98
IE-61	Impact Evaluation Study of the Technical and Vocational Education Projects in Malaysia, Pakistan, Papua New Guinea, and Sri Lanka	Dec 99
SS-29	Special Study of the Effectiveness and Impact Training in Education Projects in Indonesia	Dec 97
IE-61	Impact Evaluation Study of the Technical and Vocational Education Projects in Malaysia, Pakistan, Papua New Guinea, and Sri Lanka	Dec 99
3. 2008 Education Synthesis		
--	Learning from Successful Education Projects: A Case Study from the 2006 Annual Evaluation Review	Sep 06

D. Sector Assistance Program Evaluation

Report No.	Report Title	Date
1. 2008 Education Synthesis		
SAP: PAK 2005-08	Social Sectors in Pakistan	Jul 05

E. Sector and Thematic Paper

Report No.	Report Title	Date
1. 2008 Education Synthesis		
	Sri Lanka Country Assistance Program Evaluation: Education Sector	Aug 07

PPER = project performance evaluation report, RETA = regional technical assistance, SF = special fund, TA = technical assistance, TPER = technical assistance performance evaluation.
Source

SUMMARY OF EVALUATION RESULTS,[a] 2000–2007
EDUCATION SECTOR

Table A4.1: Appraisal and Actual Data

Loan No.	Country	Project Title	PPAR No.	PPTA ($'000)	Project Costs			Loan Amount			Implementation Period		
					Appraisal ($M)	Actual ($M)	Actual/ Appraisal (%)	Approved ($M)	Actual ($M)	Actual/ Expected (%)	Expected ($M)	Actual ($M)	Actual/ Expected (%)
A. Primary and Secondary Education													
1026	BAN	Primary Education Sector Project	PE-555	100	81.64	62.44	76	68.31	54.14	79	60	70	117
977	PAK	Primary Education (Girls) Sector Project	PE-550	175	80.51	52.85	66	64.20	42.61	66	60	76	127
1317	COO	Education Development Project	PE-646	647	3.37	3.30	98	2.70	2.53	94	60	68	113
1507/ 1508	MON	Education Sector Development Program	PE-701	1370	11.30	9.85	87	9.00	8.18	91	60	68	113
1194	INO	Junior Secondary Education Project	PE-609	921	174.90	168.20	96	105.00	98.10	93	60	71	118
1196	NEP	Secondary Education Development Project	PE-656	300	15.80	14.90	94	12.60	6.50	52	72	82	114
B. Technical and Vocational Education and Training													
1050	INO	Agricultural Technology Schools Project	PE-582	362	119.50	86.80	73	85.00	77.20	91	72	79	110
974	NEP	Technical Education and Vocational Training Development Project	PE-596	150	21.60	19.32	89	11.80	12.58	107	72	91	126
C. Higher Education													
1173	BAN	Bangladesh Open University Project	PE-607	250	43.00	41.15	96	34.33	32.77	95	60	73	122
894/ 895	INO	Marine Sciences Education Project	PE-547	350	91.60	75.60	83	73.30	66.30	90	72	82	114
1253	INO	Higher Education Project	PE-659	543	235.00	161.90	69	140.00	102.60	73	72	72	100
1224	PNG	Higher Education Project	PE-685	450	28.00	25.30	90	19.90	14.90	75	72	91	126
		Average					85			84		77	117

BAN = Bangladesh, COO = Cook Islands, INO = Indonesia, MON = Mongolia, NEP = Nepal, PAK = Pakistan, PNG = Papua New Guinea, PPAR = project performance audit report, PPTA preparatory technical assistance.
[a] This summary contains only the evaluation findings covered by the 2008 Education Sector Synthesis.

Table A4.2: Evaluation Ratings

Loan No.	Country	Project Title	Project Performance				Overall Project Rating
			Relevance	Effectiveness	Efficiency	Sustainability	
A. Primary and Secondary Education							
1026	BAN	Primary Education Sector Project	HR	GE	GE	LLS	GS
977	PAK	Primary Education (Girls) Sector Project	PR	LE	LE	LS	LS
1317	COO	Education Development Project	GR	GE	GE	LS	GS
1507/ 1508	MON	Education Sector Development Program	HR	HE	HE	LS	HS
1194	INO	Junior Secondary Education Project	HR	GE	GE	LS	GS
1196	NEP	Secondary Education Development Project	GR	GE	GE	LS	GS
B. Technical and Vocational Education and Training							
1050	INO	Agricultural Technology Schools Project	PR	GE	LE	LS	GS
974	NEP	Technical Education and Vocational Training Development Project	PR	HE	GE	LS	GS
C. Higher Education							
1173	BAN	Bangladesh Open University Project	HR	HE	LE	LS	GS
894/ 895	INO	Marine Sciences Education Project	HR	GE	LE	LLS	PS
1253	INO	Higher Education Project	HR	GE	GE	LLS	GS
1224	PNG	Higher Education Project	PR	LE	LE	LLS	PS
Total							

BAN = Bangladesh, COO = Cook Island, INO = Indonesia, MON = Mongolia, NEP =Nepal, PAK = Pakistan, PNG = Papua New Guinea
Project Performance:
Relevance: GR = generally relevant; HR = highly relevant; PR = partly relevant.
Effectiveness: GE = generally effective; HE = highly effective/efficacious; LE = less effective.
Efficiency: GE = generally efficient; HE = highly efficient; LE = less efficient.
Sustainability: (LS) likely sustainable; (LLS) less likely sustainable
Overall Project Rating: GS = generally successful; HS highly successful; LS = less successful, PS partly successful.